Convergence and Divergence in Europe: Polish and Ukrainian Cases

Lukianenko, Dmytro and Chuzhykov, Viktor and Woźniak, Michał Gabriel and Antoniuk, Larysa and Bal-Woźniak, Teresa and Bolonek, Ryszarda and Dobija, Mieczysław and Fedirko, Natalia and Fedirko, Oleksandr and Firszt, Dariusz and Honcharuk, Andrii and Ilnytskyi, Denys and Jabłoński, Łukasz and Kaleniuk, Iryna and Kaliszuk, Ewa and Kleer, Jerzy and Olefir, Anna and Panchenko, Yevhen and Poruchnyk, Anatolii and Satsyk, Volodymyr and Savchuk, Volodymyr and Stępień, Kinga and Stolyarchuk, Yaroslava and Tatarenko, Nataliya and Tokarski, Tomasz and Tsyhankova, Tetiana

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Scientific editors
Dmytro LUKIANENKO
Viktor CHUZHYKOV
Michał Gabriel WOŹNIAK

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Reviewers

Anton Filipenko, Doctor of Economic Sciences, Prof.
(Institute of International Relations of Taras Shevchenko National University of Kyiv)
Viktoria Dergachova, Doctor of Economic Sciences, Prof.
(International Economics Department of National Technical University of Ukraine
«Kyiv Polytechnic Institute»)

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Oleksandr Fedirko,
Kateryna Nikoniuk,
Oksana Vinska

The all-round aspects of bilateral relations are considered in the common Ukrainian-Polish monograph. Authors uncover important features of social-and-economic systems convergence under conditions of globalization and European integration, as well as the further transformation of Central- and East European countries. The focus of the monograph is to analyze the characteristic features of the evolution of Polish and Ukrainian economic models.

The research interest of the authors of the book has been concentrated on the diversification of bilateral economic relations and subject to the fundamental objective – the co-integration of Ukraine and the EU, as well as the possibility of adapting the Polish experience of systemic transformation of the national social and economic model.

The book is addressed to scientists, politicians, public activists, diplomats, international experts, and to all those, who are not indifferent to the European prospect of Ukraine.

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AUTHORS

Lukianenko Dmytro (ed.) — preface (co-author); 1.5 (co-author); 3.1; 5 (co-author)
Chuzhykov Viktor (ed.) — preface (co-author); 1.1; 1.5 (co-author); 3.2 (co-author); 5 (co-author)
Woźniak Michał Gabriel (ed.) — preface (co-author); 1.2; 1.4; 1.7; 1.8; 2.1; 2.2; 2.3; 2.4; 2.5; 4.7

Antoniuk Larysa — 3.3 (co-author)
Bal-Woźniak Teresa — 4.8
Bolonek Ryszarda — 2.6 (co-author)
Dobija Mieczysław — 1.6
Fedirko Natalia — 3.2 (co-author)
Fedirko Oleksandr — 3.2 (co-author)
Firszt Dariusz — 2.6 (co-author)
Honcharuk Andrii — 4.5 (co-author)
Ilnytskyi Denys — 4.9
Jabłoński Łukasz — 1.3
Kaleniuk Iryna — 4.10
Kaliszuk Ewa — 4.4
Kleer Jerzy — 4.1
Olefir Anna — 3.4 (co-author)
Panchenko Yevhen — 3.2 (co-author)
Poruchnyk Anatolii — 4.2 (co-author); 5 (co-author)
Satsyk Volodymyr — 3.3 (co-author)
Savchuk Volodymyr — 4.3
Stępień Kinga — 4.6
Stolyarchuk Yaroslava — 4.2 (co-author)
Tatarenko Nataliya — 3.5
Tokarski Tomasz — 4.11
Tsyhankova Tetiana — 3.4 (co-author); 4.5 (co-author)

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OPENING REMARKS BY THE RECTOR OF THE STATE HIGHER EDUCATION ESTABLISHMENT «KYIV NATIONAL ECONOMIC UNIVERSITY NAMED AFTER VADYM HETMAN»

Under conditions of the increasing globalization of the world economy, the socio-economic convergence of neighboring countries is essential, because the establishment of good neighborly parity relations or the reinstatement of the "iron curtain" depends on this. Quite revealing in this case are relations between Ukraine and Poland, countries that have passed a difficult and in many respects contradictory way to understanding their new positions in United Europe. In view of this, the joint paper by Ukrainian and Polish economists, which is proposed to the general reader, deserves praise and deep appreciation for the great work conducted by scholars, editors and translators of both countries.

A separate mention should be made of the cooperation between the academic schools. Science, particularly economic science, should unite and encourage governments and political forces to their consolidation for the purpose of increasing national competitiveness, and thereby also the living standards of their people. Quite meaningful thereto is cooperation between the Polish and Ukrainian scientific schools, which are considered among the largest in the megaregion of Central and Eastern Europe. I am convinced that the further development of our cooperation will be of value not only for the countries that we represent, but to others as well.

Most Ukrainian authors of this book work at the Kyiv National Economic University named after Vadym Hetman (KNEU), which is considered to be the cradle of economic personnel for our country and for decades (since it was founded in 1906) educates specialists in different economic sectors, including International Economics and Management, a specialty that has recently become a priority in our educational institutions. Of the many Universities — partners of KNEU, the Cracow University of Economics is of particular importance; good academic relations have developed between them, as evidenced by this fundamental economic work.

We are deeply grateful to the Polish party for its patience, tolerance and understanding of our problems and scientific talent, which together, transformed a good idea to a brilliant result.

Anatolii Pavlenko,
Rector, State Higher Educational Establishment «Kyiv National Economic University named after Vadym Hetman», Doctor of Economic Sciences, Professor, Academician, Hero of Ukraine

OPENING REMARKS BY THE RECTOR OF THE CRACOW UNIVERSITY OF ECONOMICS

Development of Polish-Ukrainian cooperation is a key objective of the foreign policy of both countries. Although during the initial period of transformation of both economies this postulate was not implemented sufficiently, in recent years a clear acceleration in this area has been observed. However, to preserve this positive trend in the deepening of relations, such cooperation should increasingly rely on grassroots community initiatives and manifest itself in different forms: political, economic, scientific and cultural.

With this in mind an Agreement on scientific and educational cooperation between Kyiv National Economic University of Ukraine (KNEU) and Cracow University of Economics (CUE) was signed in early 2008. An important initiative of this collabouration was the research project "The Convergence of Economic Models in Poland and Ukraine", resulting in this monograph. The fact that this first joint project addresses problems that are fundamental to both economies, and at the same time is a large-scale initiative, is clearly positive evidence of the prospects of Polish-Ukrainian scientific cooperation in the future.

The authors of the monograph presented a thorough diagnosis of convergence and divergence processes, which took place between Poland and Ukraine after 1990. Primarily they performed a difficult task of identifying the systemic and institutional conditionalities of economic development and reducing differences in development. These issues are particularly important for Ukraine, which is an example of a post-socialist country that has yet to make decisive steps in selecting its own model of development, while the reforms that have been implemented, which are based on proven designs of a competitive system, the information and telecommunications revolution, globalization and integration trends, have not brought the expected results. This paper proves that the most applicable model for Ukraine is that of the EU, because it is based on the harmonization of economic efficiency, social justice and ecological balance. As such, this model is more understandable to the post-socialist society and can get its approval. We also hope that this publication will be an important voice in support of Ukraine's accession to the EU, as it presents substantial scientific arguments in favor of this view.

The authors of the monograph deliberately sought to move away from the purely professional language used by economists, so this work is understandable to a wide range of readers. I also believe that this publication can be a valuable resource for students, and also shall be circulated widely beyond academic centers. For this reason, it could become an effective tool for distributing the idea of European integration in Ukraine, as well as for gaining a deeper understanding of specific problems in Ukraine, Poland and other EU countries.

Roman Nestrój,
Rector of the Cracow University of
Economics, Professor, Habilitated Doctor

PREFACE
TO THE ENGLISH LANGUAGE EDITION
OF THE MONOGRAPH
«CONVERGENCE AND DIVERGENCE
IN EUROPE: POLISH AND UKRAINIAN CASES»

For almost a quarter of a century the transition of economies of Poland and Ukraine to the market economy has been in progress. Production capacities have been updated, democratic political structures have been developed, and the civil society has also evolved. The results of these efforts, however, are quite diverse, notwithstanding the fact that starting potentials for the development of the two countries have been quite similar. Poland has chosen a firm pro-European orientation, whereas Ukraine has been following its own way. The experience of these two nations proves that profound systemic transformations may result in considerable social and economic advantages, or, in case of their suspension, may turn into the source of troubles, deepening technological and civilization gap, as well as the emergence of various obstacles, which interfere with the generation of the new wave of national economies integration.

In general, there are numerous other reasons, which call for the profound analysis of the problems of systemic reforms implementation in Poland and Ukraine. The challenges of the competition of a new type, requiring the search for the synergies of a combined influence of technological, production, managerial, financial and other innovations are intensifying. The emerging markets' competitive pressure from China, India, Brazil and some other rapidly developing nations is getting ever stronger. More over, financial and economic crisis, which broke out in August 2008, caused severe debt problems for many countries of the world. Nevertheless it made obvious, that some countries, including Poland, were still better able to overcome the consequences of the crisis, and therefore to raise the competitiveness of their economies.

For this reason in our monograph we tackle not only the problems of similarity and divergence of Polish and Ukrainian economies in the context of real systemic transformations, which take place in both countries, but also consider the issue of general applicability of Polish experience in the field of market transition and EU accession for Ukraine. We also made an attempt to answer the question, whether the existing social-and-economic system meets the requirements of progressive development of Ukraine.

Our deliberations are grounded on the argumentations of neo-institutional theories and some endogenous growth models, as well as deep conviction of the authors, that development via globalization of neo-liberal type is not the optimal trajectory for Ukraine. Simultaneously we arrived at a conclusion, that Russian market transition experience is not able to cause the catch-up development in case of Ukraine, even though it may be suitable for the solution of several social-and-economic problems. The hybrid systemic solutions, as well as those, grounded on the Washington Consensus, can not be regarded as the alternatives because of the heterogeneous logics of their components, and in

view of the threats posed by the devaluation of social and human capital and immanent for many post-socialist states, and firstly for Ukraine, development paradoxes.

We assert, that economic model of the EU may be suitable for Ukraine, as in spite of being hyper-bureaucratic it is aimed at harmonization of conditions of economic efficiency, achievement of the proper social standards, as well as environmental sustainability. From this viewpoint it makes more sense for the post-socialist society, and may be approved by it. We have also focused on the dependence of the market transformation outcomes on a set of cultural determinants, such as traditions, thinking, personal and collective behaviour, grounded on the historically formed rules and patterns.

Thus the outcomes of our joint research may be summarised in the following:

1. Modern convergence processes, which are dominant in the world, are quite controversial, as they often unusually combine with divergence of some states, which, being part of the integration union, after a long period of mutual convergence habitually demonstrate rapid growth of divergences in relation to the social-and-economic postulations, which until recent had been regarded as unquestionable assumptions. The similar developments may be typical for two neighbouring nations, which might illustrate both common and distinct features of their economic systems, revealing in certain periods of their modern history both convergent and divergent trends. The Central European location of the two large in terms of population and territory nations — Poland and Ukraine, transit through their territory of commodity flows of continental importance, and potential contradiction of the European and post-soviet visions of the integration prospects on the both sides of the border extends the matter of identification of qualities of the two economic models far beyond the framework of the traditional analysis of trans-border economic systems.

2. There are reasons to presume, that transformation processes of Polish and Ukrainian economies by themselves don't lead to the convergence, growth and efficient economic development of these two countries. Its routs are rather complicated, whilst endogenous and exogenous factors are multifaceted and controversial. The considered economic divergence of the two countries is, first of all, a function of differentiation of market transition processes, as well as one of institutional changes. The identification of common and different features of economic development of Poland and Ukraine allows defining the factors of harmonization of their development, as well as impediments holding up this process.

3. Although Ukraine is not one of the EU Member States, the exploitation of Polish experience in the domain of the EU *Acquis communautaire* implementation could provide it a plenty of advantages, such as economic, social and political ones. The possible economic benefits might comprise the achieving of real convergence of economic growth and development of Ukraine and the EU, as well as the intensification of effective markets formation in Ukraine. Social advantages might include the establishment of institutional framework and the development of social capital, which altogether would lead to the growth of economic performance and implementation of the policy, built on the system of social-and-economic cohesion of the EU. Political gains might be associated with

guarantying political stability, improving the level of security in the region. There could also be several discrete improvements, such as the expansion of spheres of self-responsibility for the one's own wellbeing among the economic agents of Ukraine.

4. The problem of the post-soviet states' economies adaptation to the global market environment is rather challenging for them, as the established theoretical postulations and traditional managerial technologies are discredited. The economic and social motivations of Ukraine are not an exception, as any regulation of its economic system, even after the ratification of the FTA+ Agreement, requires an adaptation period, clear identification of gains, risks and losses, born by the new status of this European state.

As a result of publication of the present monograph in Polish (2009) and Ukrainian (2010), and from now on — in English (renewed and revised edition) we expect the spread, at least within the academic environment, of knowledge concerning the systemic factors and barriers, suspending the process of convergence of the two countries, as well as opportunities and threats, connected with the use of Polish experience in the process of adaptation of economic, social spheres, and institutions of Ukraine, which are responsible for the decision-making in the process of Ukraine's accession to the EU.

Imperative is the comprehension by the society of the need to create a better climate to enhance the process of accession of Ukraine to the large family of the EU Member States. Therefore a decision was made to publish the outcomes of the research of the Polish and Ukrainian economists in English, which will greatly expand the audience of readers, not indifferent to the European integration processes.

Viktor Chuzhykov,
Dmytro Lukyanenko,
Michał Gabriel Woźniak,
May 2012, Poland — Ukraine

CHAPTER 1

THEORETICAL AND EMPIRICAL BASES OF CONVERGENCE OF COUNTRY MODELS UNDER CONDITIONS OF GLOBALIZATION OF THE WORLD ECONOMY

1.1. The Essence and Fundamental Features of the Evolution of Country Models (late 20th— early 21st centuries)

1.1.1. Introduction

In the modern system of the social and economic science the interpretation of the term «model» is quite broad, i.e. it covers virtually all major areas of social development, as well as the mechanisms and tools to control it. Often referred to as methods of calculation of some proportions in both the economic and social spheres, enabling the more informative determination of the nature of transformations in a country or group of countries and with a high degree of probability; in this case, they also refer to elements of simplification or, conversely, complication, which enable the provision of expert opinion to processes that occur in the extensive system of economic relations. At the same time, international comparisons of the «successful implementation» of systemic reforms often require not only the use of the traditional macroeconomic indicators, but also the synthetic ones, among which the most frequent are the portion of private property, rate of corruption in society, «ease» of doing business, and the economic openness of society. In totality, they can claim to be called a «model». In economic blocs, non-standard analytical models of state convergence, which enable to identify possible ways of approaching economies and acceptance (or rejection) by their people of the values that dominate in the interregional Community, have recently begun to be implemented.

The many attempts of numerous researchers to isolate exclusively religious determinants of the «success» or «failure» of national economies are interesting in many respects, but can hardly serve as the only explanation for what is happening in a particular state over a specific period of time (indeed, Ireland entered the EU, being among the outsiders of the European economy, and in early 2007, its GDP per capita was second in the European Community after Luxembourg. South Korea's development has undergone a long and difficult path from the agricultural

country it was in the mid-50s, to a superpowerful industrial-banking «chebol» model in the 70s and its subsequent systemic crisis in 1990s, and relevant new quality of innovative restoration in the early 21st century). However, the most essential for a country in a globalized world economy is the acceptance or non-acceptance of the relevant paradigm for further development — «Homo economicus» or «Homo sociologicus». This option requires great responsibility from society for all spheres of life, it should be made taking into account the mentality of people, the specifics of the regulation of macro-economic proportions, and thus, the selection of the optimal model for reaching their goals. Despite the fact that in Poland this value orientation is more precise and consistent in character than in Ukraine, the possibility of the convergence of the two economies, in view of the common problems, ethno-cultural and in part mental, economic and geographic priorities, seems quite urgent.

1.1.2. The Paradigmatic Vacuum of Country Models

The transfer of mankind to the post-industrial model of development was in many ways paradoxical and such that had not always contributed to the convergence of economic models of leading states and «third world» countries. If in the early 90s they were dominated by the paradigm «Homo economicus», after global recognition of the concept of sustainable development at the conference in Rio de Janeiro (1993), most economists and politicians began to gravitate toward a new paradigm, «Homo sociologicus», while anticipating that an economic crisis could be overcome via the balanced development of its three components: economic, social and environmental. It was assumed that such a model would be the most justifiable, and therefore the success of the global economy in the early 1990s (especially of post-industrial countries) had inspired mankind with the hope for rapid transformational changes in society. Naturally, it gave rise to a new theoretical search in the conceptual guidance of the future global order, which was clearly defined by R. Svedberg (R. Svedberg, 1991), as made evident in the table below (see Table. 1.1).

The author summarized the main methodological achievements of the economists and philosophers of the late 20th century (Samuelson, Schumpeter, Mitchels, Friedman et al.), which enabled him to make a navigable channel between neoclassical (Homo economicus) and social (Homo sociologicus) paradigms. It was anticipated that the latter would become dominant in the near future. It brought with it a change in the number of its components, and more specifically, it was claimed that the principles of actions rather than individual ones had every chance of acquiring collective attributes. In the early 1990s, experience of social convergence in the European Community and many social programs that

were approved at the time by the US Congress, and finally the activity of the World Bank, aimed at overcoming poverty in «Third World» countries, united both theorists and practitioners in their belief that collective interaction would become dominant in a global economy. From our perspective, it is not entirely consistent with the real state of affairs, especially on the level of TNC and TNB[1], which in the 1990s started the process of mergers and acquisitions, which was in essence paradoxical in the achievement of significant competitive advantages in the global economy, and therefore collective action was soon replaced by corporate action, often referred to as a kind of individual action (or rather its synergistic option). The principle of action also changed, when the existing social structure of leading states severely limited the use of investment in them, which until recently had been proud of their achievements. In its motives, modern global capitalism (or turbokapitalizm, as it is sometimes called) largely uses rational calculations, nullifying (or substantially limiting) irrational perception, traditions and mental values.

Table 1.1

NEOCLASSICAL AND SOCIAL PARADIGMS AS A REFLECTIION OF THE WORLD (SECOND HALF OF THE 20TH CENTURY), ACCORDING TO R. SVEDBERG

	Homo economicus	Homo sociologicus
Action	Individual	Collective
Principle of action	Freedom of action	Limitation of action through the existing social structure
Motives of action	Rational calculations	Irrational perception, traditions and values
Field of action	Market	The whole Community together with the market
Determining principle	Multiplicity, decentralization of decisions	Decision caused by social and political power
Types of concepts used	Analytical and abstract	Empirical and descriptive
Tasks of analysis	Prediction as an explanation	Description as a concept
Relation to other sciences	Self-sufficiency	Self-sufficiency

Source: Socio—economics. Toward a New Synthesis / A. Etzioni, P. R. Lawrence. — N.-Y. — London: M. E. Sharpe, 1991. — P. 22.

[1] According to various sources, transnational corporations accumulate from 2/3 to 3/4 of the world financial resources. The intensification of global competition leads to the fact that many of them are used to carry out expansionist policies rather than to develop human capital. The intentions of the majority of governments to change this situation through their own financial instruments are not always effective.

The use of the market as the principal, or more accurately, the only arena with relevant restrictions in the «social market economy» of Scandinavian countries and Germany and the less regulated market in the Anglo-American model does not call forth any doubts either. An analysis of economic growth in these countries over the last decade demonstrates convincingly: greater economic risks and low GDP growth is characteristic of socially oriented models of economic growth, which makes them very vulnerable in the global competition of countries for investments, labour markets and resources.

In our view, the types of concepts used in society can be regarded as being quite important. If in the «Homo economicus» paradigm the most common are analytical and abstract consepts, «Homo sociologicus» is dominated by the empirical and descriptive ones , the latter of which are constantly criticized for their inadequate perception of «state — trade unions — employer» triangle.

Global economic system crises in the late 90s, harsh criticism of the concept of sustainable development, which was more like a will (dream) than reality, a new interpretation of the Kondratiev cycles theory (full amplitude of fluctuation decreased from 70 years to 10—15) caused a certain theoretical vacuum in the already «traditional» «Economics», by means of which until recently they tried to explain almost everything. These contradictions in modern economic methodology were somewhat clearly revealed by Professor A. Leijonhufvud (A. Leijonhufvud, 2006) from the University of Trento (Italy).

Taking into account the abovementioned parametrial characteristics, as well as the «standardized» (if such a word can be used for science) views of «neoeconomists» A. Leijonhufvud identifics, that the tasks of the two theories, — the classical one and the modern one, — are quite different. If the issue in the first case is the detection of the system's laws of motion, then in the second one — it's only the principles of the efficient allocation of resources. It means that the very existence of the categories of «law» and «trend» is put into question, which, in our view, cold threaten our perception of economic theory in general, because the detection of principles (we will add that they are temporary in the context of globalization) cannot serve as evidence of the scientific substantiation of the interpretation of any socio-economic process, and therefore a question arises, that is quite understandable, on the selection of a specific model of the development of society with an appropriate methodological interpretation of its effectiveness, since the next category — utility maximization of both intentions (according to the classics) or results (according to neoeconomists) is significantly different. I am not sure that entrepreneurs from the times of J.B. Sei or or K. Marx did not rely on the results of their activities, they merely declared their intents. We think that

A. Leijonhufvud is right in determining the behavior of the individual that changed from adaptive to the optimal one, which the author defines as «substantive rationality»: it must be focused on the future. Vivid evidence of this could possibly be the behavior of many Japanese banks, which in the early 90s actively secured their positions on many financial (both geographical and sectoral) markets of the global economy, but the systemic crisis of the economy of Japan, the country of the «rising sun», which took place in the late 90s, forced them to change to rational behavior, resulting in the formation of financial and industrial capital associations, known as «koho syudan» («Midzuko», «Sumitomo-Mitsui», «Mitsubishi-Tokyo», etc.), which were, in essence, superpragmatic and superrational. However, even this was not a panacea.

In our opinion, the interpretation of the role of institutions in modern methodology is quite controversial. The famous theories of institutionalism and its modern modification — neoinstitutionalism as compared with the classical (I would also add neoclassical) theory did indeed make development strategies predictable for both individual countries and entire sectors of the national, and to some extent, the global economy, and the consequences of their implementation seemed quite predictable. Sometimes it assumed relatively simple forms of the development and implementation of national strategies and programs (USA, Canada) and envisaged the limited scope of regulation by the state, sometimes it meant the application of more substantial government mechanisms and instruments of influence, for example — indicative planning in France. In time, international institutions (the IMF, European Central Bank, European Commission) began to assume the functions of supranational regulation. The strengthening of global organizations disturbed the balance on the macro and micro level, which led to a dramatic debate on the general feasibility of their existence in market conditions. However, this was not the only way in which the balance was disturbed. In Germany, the number of supporters of the «Homo sociologicus» paradigm has decreased recently, primarily through the destruction of the population's traditional notion of the dominance of social development in the country. The latest national statistics data show that average annual GDP growth in the country over the last ten years was only 1.5 %, while the number of recipients of social assistance in view of poverty — «socialamt» increased by 7 % per year. The coming to power of Nicolas Sarkozy in France was not a coincidence, since his main election slogan was the regulation of social assistance, the recipients of which were almost 10 % of the population, mostly immigrants from around the world. Naturally, tax increases, as a simple arithmetic operation to solve social problems, resulted in further outflow of investment according to the principle of the firm «Tefal». The crisis of

the social model of society in the global economy had already become apparent in the late 20th — early 21st century, and it started, oddly enough, with leading countries. It is natural, that it was followed by the economic crisis (2008—2009).

To identify trends and thus to identify specific «extremes» of the impact of globalization on all spheres of social and economic life, it is vital to determine the critical levels of the most vulnerable aspects of this process. Given that the term «globalization» appeared relatively recently (late 1980s) and the phenomenon itself, to a certain extent, has existed since the transition of humanity to the slave society, it would be expedient to concentrate only on the parametrized identification of selective components of this process, directly resulting from different approaches to the interpretation of the two paradigms, «Homo economicus» and «Homo sociologicus». The avant-garde work of L. Marks, N. Kalaitzandonakes, S. Konduru (2006), might be very useful to develop the understanding of the process, as they after a thorough analysis of the major publications on the mentioned subjects, managed not only to detect the critical places of the taxonomy of modern terminology, but also determine their hierarchical and conclusive nature.

The contradictory nature of the globalization process, as noted by the above-mentioned scientists from the University of Missouri-Columbia (USA), is quite clearly reflected on the dendrogram in two blocs — positive and negative, and clearly illustrates the changes in society, which the phenomenon brings with it. World trade, for example, increases access to all the benefits of civilization, while reducing poverty in post-industrial countries and in fact encouraging its growth in «Third World» countries , thus creating a negative environment in some coutries and positive one in the others. Uneven economic development is strengthened, in spite of the fact that there are new poles of growth in both «Third World» countries (India, China), and in some regions of post-industrial countries (Silicon Valley in the USA, Stockholm — Kista in Sweden), which in the mid-20th century were not distinguished by the best combination of production factors, but now differ from the global periphery with their high dynamism, relevant preferential tax regime and new rules (in spite of everything, they exist) of the innovative and investment flow of capital, which have yet to be adequately studied by global economic science. Thus, it becomes obvious that the explanation of M. Porter on the competitiveness of the national economy through the competitiveness of firms that are part of it, does not appear to be very convincing. It follows that the author's famous «diamond» will shortly have to become a polygon. The hyperdynamic business of global networks correlates weakly with the traditional interpretation of production factors and the estimations of the competitiveness of firms according to Porter, which until recently have been admired by his numerous followers.

The interpretation by L. Marks and his collabourators of employment seems quite strange, which should be compared to the negative and positive migration rather than with localization, which, incidentally, has no antipode. Transborder migration will undoubtedly intensify in the 21st century and serve as a «compensation» response to the challenges of innovation and investment globalization. With this, it is possible to predict that the income of the citizens of post-industrial countries will grow more slowly, the supply of surplus labour from developing countries will grow and the social package for new migrants will decrease. This means that the situation wherein mankind will shortly find itself in, will most likely be determined according to the communist slogan from past years improved by the Russian professor L. Miasnikova (2006), — «from each according to his abilities — to each according to his needs, determined by abilities», i.e., as the author herself notes, the situation will be formed, when «people are equal before God and law, and in all other respects they will not be equal»[2]. The first part of this forecast does not raise any doubts, which cannot be said about the second part, because laws are written by people and supposedly for specific groups of people, whose interests they protect. The experience of former Soviet countries demonstrates the high probability of the dominance of this particular position.

At the same time, in our opinion, another L. Miasnikova's assertion on the existing paradigms of economic development is quite important. In her opinion, they clearly fit three categories: networks of netocracy, networks of bourgeois and consumerate, as well as world networks; hierarchical relations exist among them.

Netocracy is the intellectual elite of the middle class, using its intellect as a means of production, which is backed by a personal computer. The finished product here is the organization of a new network or the upgrade of an existing one, the strengthening of their competitive advantages or, conversely, the reduction of the influence of other networks. People belonging to this class are at the same time producers of networks, and their powerful consumers, which clearly follows from the next block — bourgeoisie and consumerate networks. Today, post-industrial society is a multistructural consumer model, in which the use of new generation advertising technologies, armed with an in-depth knowledge of human psychology, leads to the diversification of consumer demand (or even to the excessive consumption of so-called «cheap things»). How is it possible to estimate the movement of aggregate

[2] Prof. N. Birdsall (2006), President of the Center for Global Development (USA), gives his data on country asymmetries, whereby nowadays the USA, the EU and Japan are 100 times richer than Ethiopia, Haiti and Nepal, while in the early 20th century, this ratio was 9:1.

demand or supply curves in the economy of a specific country, where psychologists of the highest qualification have taken on the case?

World networks in a globalizing world economy will become increasingly used not only in terms of availability via e-commerce, but also in terms of easy access for most customers to different information sources, data banks, etc.

The new paradigm proposed by prof. L. Miasnikova, which is often called «Homo informaticus» in the West, however, shall be considered as a separate component of the «Homo economicus» paradigm, in which another link of netocracy has appeared, consisting of top managers (curators), scientists (eternalists), managers (nexilists) and others. However, it does not bring new changes in behavior, area of activity, principles of action and other aspects that define the reference to «Sociologicus» or «Economicus». In our opinion, the answer to the question whether a paradigm can have a regional and sectoral hierarchy is quite important, because its component structure, global identification and applied orientation depend on it.

The identification of the most significant features of the modern paradigm is impossible without a clear definition of its parameters, which were determined for the first time by the American, T. Kuhn, back in 1962, who is rightly considered to be the second author since ancient times, to implement this term in modern methodology. Despite all the criticism of many followers and opponents of the «Chicago-based» interpretation of the definition of a «paradigm», it has still not lost its relevance in the economy. T. Kuhn defines a paradigm as «... recognition by everybody of the scientific achievements, that for a certain time offer a model for posing a question and its resolution by the scientific Community» (T. Kuhn, 1975 : 11). The above interpretation envisages the existence of models, and thus their detailed description, which is recognized by everyone and can be considered as a model (standard) for the most rapid implementation. Given this, there may be (in fact, it already exists) a sectoral interpretation of a paradigm (e.g., innovation, recreational, social development), and regional (the world as a whole, the EU, Ukraine, Poland, etc.), and inter-sectoral, international, and thus any other. What are the consequences of this fragmentation? Most likely it will lead to a complete blurring of its interpretation. With this in mind, the system definition of a paradigm offered by the outstanding American and Hungarian economist, J. Kornai (2002), who we feel best defined its main characteristics, deserves attention: the identification of the system as a whole and the relationship between its components; the interdisciplinary nature of research; the institutionalization of society; the evolutionary and historical nature of the studied process (phenomenon); individual preferences; the use of statistical models due to the existence of

methodological problems; the study of internal dysfunctions that are inevitable; own methods of analysis and methodology.

It is possible to agree with J. Kornai in terms of identifying the components of the «system paradigm» concept, because he defined its methodological bases in detail, but there are serious doubts in terms of the detection of a single interdisciplinary paradigm that is not substantiated in any way and is unlikely to ever be realized, since even theoretically it cannot meet the above-stated criteria, which will be recognized simultaneously by political scientists, sociologists, economists, culturologists philosophers and other professionals. Under conditions of the increasing globalization of the world economy, it is vital not only to state the multiple structure of the studied phenomenon (no doubt, J. Kornai is right in this respect), but also the polisystemic nature of socio-economic processes taking place in the global economy. Thus, it is clear that it is not really possible to expect the emergence of a single system paradigm in the near future, instead (we take responsibility for this forecast) local industrial paradigms will be reproduced intensively, and their effectiveness, as follows from T. Kuhn's theory and the «characteritics» of J. Kornai, will be determined by the existence of highly valid socio-economic development models of country and megaregional levels.

Under conditions of the increasing globalization of the world economy and shaping of the dominant development paradigm, the detection of the correlation «global» → «local» will be of utmost importance in the near future. The well-known slogan of the recent years; «Think globally — act locally» quite meaningfully reflects the essence and the main components of the three approaches of world economic development in the 21st century, which David Held and Anthony McGrew define as neoliberal, liberal international and institutional reformist, global transformation, protectionist and radical models, each having the appropriate criteria basis (basic ethical principles, proposed management system, key reforms, preferred form of globalization and a political transformation course). In another part of his book «Globalization/ Antiglobalization» (D. Held, 2004 : 106) the authors suggested quite a successful synthetic globalization policy model — «cosmopolitan social democracy» (crossed social position). From our point of view, it seems quite convincing, as it allows the integration of at least three different conceptual positions: of liberal internationalists, institutional reformers and supporters of global change, i.e. movements that both support globalization (the first two) and oppose it. The main features of the newly created model of global/local development should be:

1. Human rights and shared responsibilities. Political equality (*basic ethical principles*).

2. Management on the part of individuals through market relations. Minimized impact of the state. International institutions, a polistructural system of relations: global — supranational — national — regional — local (*management system*).

3. International free trade. Expansion of political participation, full access to ensure global public goods. The strengthening of diverse membership in political communities. The dominance of international law (*key reforms*).

4. The acceleration of interdependence through free trade, integration in corporate forms of intergovernment relations. The regulation of global processes together with democratic global governance. A multi-level cosmopolitan state structure and the regulation of global processes to achieve equal autonomy for all (*preferred form of globalization*).

5. Strengthening observation of human rights, environmental regulation as well as the reform of global governance. Increasing the share of collective action. Decentralized country management. Reconstruction of global governance through the democratization of states, civil society and transnational institutions (*political transformation method*).

Naturally, the socio-economic model of the country cannot be isolated even in cases when it is closed to outside influences, instead the development concept adopted by society should be open for discussion both during its development and approval, as well as during its implementation. However, the success of the model will depend on how well it will be integrated in the global paradigm, the formation of which will significantly affect the nature and directions of internal transformation of virtually all world countries in the near future.

1.1.3. Transformational Models of Central and Eastern European Countries (CEE)

The transition from the administrative command system to a market society in CEE countries was in many ways complex and controversial, because there were no theoretical and applied models of fast (slow) or any other transformation of society in the world, and thus, nobody could propose ready transition scenarios, taking into account the specifics of the national economy. However, the advice of many supranational institutions — the International Monetary Fund, World Bank and some European institutions for the countries with transforming economies were quite helpful, though not as ideal as the population and governments counted on. In fact, during this period the two main strategies (models) of socio-economic transformation were formed: the «shock therapy» of Polish economist L. Balcerowicz and gradualism (evolution), one of the

authors of which was the previously mentioned Hungarian Professor J. Kornai. The principal difference between them was in the terms and methods for transition to a market economy.

Initial conditions for the beginning of reforms were quite clearly defined by Polish economist Grzegorz Kołodko (2000 : 24), which he called «Socialist freudianism or galbraith's socialism» (2000 : 24), hinting at the vacuum of theoretical and practical developments for the implementation of a relevant model. Post-Soviet countries experienced similar, though with some specifics, initial conditions, however, approaches to transition differed mainly in the following: lack of a clear certainty of people and governments as to the kind of society they were going to build (there were plenty of options, «market socialism», «socialism with a human face», «Christian socialism», etc.), the inconsistency of reforms, the naive attempts of governments to initially provide aid to all segments of the population, bearing in mind that there was actually nothing to share, hypertrophic non-transparent privatization and so on. In the Asian countries of the former Soviet Community it was accompanied by the purely antidemocratic usurpation of power, when the former Secretary of the Communist Party actually became a lifetime president and at the same time, the richest person in the state. Nevertheless, the shock, gradualist and «post-Soviet» models of transition to a market economy had a number of common transformation activities.Back in 1995, A. Gelb and C. Gray identified four main elements of system transformation, including: macroeconomic stabilization and control; pricing, and market reform; the development of the private sector, privatization, reform of the industrial structure; and redefining the role of the state. J. Marangos (2005), a modern researcher of the problems of transitional economy, distinguished seven of such blocks (price liberalization, privatization, institutional structure, monetary policy and financial system, fiscal policy, international trade and foreign aid, social policy) and determined the conditional duration of each, with a total time lag, which in his opinion does not exceed ten years.

Author concludes that, the most difficult and therefore the most protracted process in all countries of the megaregion was the privatization of large enterprises, which was most effectively conducted in Hungary and the Czech Republic, but significantly delayed in Ukraine, the Russian Federation and Kazakhstan.

The formation of an institutional structure had a different content in post-socialist countries. For example, while in Central and Eastern European countries, at the end of the 1990s, governments began to fulfil a merely regulatory function, in post-soviet countries they still focused on management, directive and distributive functions. Many of

them sought to maximize their powers, using fiscal pressure, numerous inspections and regulation, attempted to gain almost complete control of business. This significantly separates the post-Soviet bloc from the European countries.

The budget deficit problem is typical of any country, however its various indicators in CEE countries, together with the rate of inflation and government debt, play a restrictive role during a country's accession to the EU and, in accordance with the «Stability Pact» — to the Eurozone.

The system of social assistance in CEE countries, is still different on the state level, both by nature and scale. For example, the minimum pension in most countries exceeds the subsistence level (the Czech Republic, Hungary, Slovenia), but in others it is equal or even below it (mostly in CIS countries). Similar budget deficit problems in almost all CEE countries are specifically resolved at the expense of limited funding for the social sector, causing the well-known «compensation migration effect», when a Polish doctor goes to work in Sweden or Germany, and a Ukrainian doctor takes his place.

Transfer to J. Marangos' (2005) neoclassical gradualist model was based on different regulation instruments and mechanisms, but had similar consequences. Considering the results given by Marangos, one can argue that the most successful reforms were those in Hungary, and the least successful ones — in Romania. Slovenia, for example, was more of an outsider, but all CEE countries would envy the macroeconomic results it achieved after becoming an EU member. In our view, this is not so much because of the scale and dynamism of reforms (although it also plays an important role), but because of the size of the country and degree of adequacy of the reform (acceptance) of its economic complex; the reforms taking place in society. (The two smallest CEE countries — Estonia and Slovenia achieved quite high performance results. The former has competitiveness indices that allow it to be included in the group of high-level countries (together with France). The latter has GDP per capita at a level that even today exceeds that of Portugal, and its human development index (HDI) places it among the European leaders.)

Naturally, the further development of socio-economic models in Central and Eastern European countries will largely take place under the influence of the strengthening of globalization processes in the world economy as a whole and continental integration in particular, and the model proposed by Polish economist G. Kołodko (2002 : 15), to describe these processes is called «post-socialist capitalism.» The period 1990-2000, which was considered to be transformational, had different national strategies for CEE countries, but despite the implementation of similar

measures, that were compressed or, conversely, stretched in time, actually brought the same results. The actual GDP in 2000 relative to 1989 (1989 = 100 %) was only exceeded by Albania (104.2 %), Poland (107 %), Slovakia (103 %), Slovenia (113.7 %) and Hungary (104 %). Ukraine and Moldova had a ten-year recession (the longest among CEE countries), while it only lasted for 2-3 years in Poland and Slovenia. During this period, many countries had a secondary recession (Albania, Bulgaria, Estonia, Kazakhstan, Latvia, Lithuania, Russia, Croatia), and Moldova, Romania and the Czech Republic had three minimal falls (G. Kolodko, 2002 : 71).

At the same time, the above complications did not influence the possibility of EU accession for most CEE countries, thus dividing Europe into two parts: an integrated one, and the one that is still undergoing transformation. The overall difference in quality and time of reforms conducted in Ukraine and CEE countries, as well as time lags and their stages (accession to the GATT/WTO, application for accession to the EU, establishment of a free trade zone with the European Community and the beginning of the implementation of the EU «*acquis communautaire*») in early 2001 constituted 6 years, while in 2007 it increased to 10-11 years. The need for diversification in the European direction and completion of transformation reforms in Ukraine is an urgent requirement for transition to the innovative development model, which largely corresponds to the wishes of the peoples of Ukraine and Poland.

1.1.4. Can Country Models Converge?

The transition to a market economy while preserving social determinants of development always encounters some very important circumstances, which can subsequently determine the nature of relations between countries and directions of future convergence. In addition, according to Horst Siebert (Horst Siebert, 2006) from the Kiel Institute for the World Economy, increasing local competition is inevitable in the context of a new paradigm of the international division of labour. Ukraine, which, by its geographical location is between the European Union and the Russian Federation, will, in the future, experience the civilization, economic, social and demographic impact of the two major megaregional «magnets» — the European and the Eurasian ones. According to the poles theory of Canadian researcher Alex Bettler (2002 : 73) the geo-economic structure of the world in the 21st century will be determined by the economic weight of countries reflecting their economic potential, which on the aggregate level, is evaluated via the GNP/GDP indicator. According to the calculations of the above author, there are two poles in Eastern Europe — Russia with its USD 400 billion GDP and Poland with more

than USD 200 billion GDP[3]. The resulting bipolarity is quite complex for Ukraine, because, under the conditions of convergence of Russia and the EU, Ukraine and Poland will benefit from their high transitive potential, conversely under divergence conditions — Ukraine will lose, because a high degree of integration of Poland into the EU and the expansionist strategy of Russian TNCs will stretch regions of Ukraine on different sides of the border. What could happen then? The gravitation of western and southwestern regions to Poland, Slovakia, Hungary and Romania, and of eastern regions — to Russia will form an unstable balance that could harm the integral unity of the state. Possible benefits could include the creation of a new harmonized model for Ukraine's economic development, which would be a diffusion system of socio-economic factors for the megaregional transformation of civilizations. Under these conditions, the benefit for both Ukraine and Poland would be obvious. From our point of view, the main directions for the convergence of the economic models of Ukraine and Poland could soon be as follows:

- the further development of economic relations and transferring them to a pragmatic direction; the establishment of joint ventures in priority sectors of the economy;
- implementation of Polish experience in Ukraine as regards SMEs support;
- the establishment of international financial and industrial groups in innovative sectors;
- the diversification of Euroregional cooperation;
- joint participation in EU technology programs (especially in the Seventh Framework Program);
- development of scientific and technological cooperation between the leading scientific schools and the commercialization of the achieved results;
- strengthening of humanitarian contacts in the social sphere;
- Polish support of the European aspirations of Ukraine and lobbying of common interests in EU institutions.

Many other ways of strengthening cooperation between Poland and Ukraine will be addressed in other chapters of this book.

[3] There is one contradiction in A. Bettler's model. The fact is that the increasing homogenization of the European economic area is inevitable under conditions of the free movement «of four European freedoms», and thus it is possible to speak not about the Ukraine — Poland, Ukraine — Russia correlations, but about the Ukraine — EU, Ukraine — CIS models. If you anticipate that the total GDP in the EU now exceeds USD 12 trillion and the same indicator in the CIS is USD 700 billion, which is less then the GDP of Spain it is clear that the gravitation of Ukraine to the EU will be dominant, despite all contradictions of a mental, ethical and civilizational nature. Such evidence can be found in the migration model of Stewart, which is based on differences in the incomes of the population. Based on these calculations, the volume of migration to the Russian Federation, will decrease, but they will increase in the direction of EU states.

1.2. Criteria for the Evaluation of the Functionality of Economic Systems

1.2.1. Introduction

The functionality of the economic system should be understood as the ability of mechanisms controling the national economy or any component thereof (enterprises, households, individual markets, etc.) to effectively achieve economically desirable objectives. Thus, a functional economic system is characterized by two attributes: the efficiency of the implementation of goals and the effective use of resources. Thus, it is impossible to answer the question: is an economic system functional, if desired objectives are not achieved and if there is no definition of effectiveness.

Liberal mainstream economic theory, derived from classical and neoclassical economics, is based on the paradigm of methodological and meaningful individualism. This theory recognizes that society is composed of atomized individuals who maximize personal benefits, calculated and defined by market categories. However, the assertion that human behavior can be altruistic when they perform any role, other than an economic one, is denied. In fact, individuals will be characterized by ever-growing needs. This means that fewer and fewer tangible resources have to circulate in the environment over time. In this approach, heterogeneity of preferences does not prove the heterogeneity of selection criteria. Sure, it is personal interest that unites a worker, an entrepreneur, the head of a family, a statesman or even a monk, but each person understands this interest according to the hierarchy of values defined by him/her.

A perfect competition model takes into account the fact that a person is an individual. As a creature that maximizes his/her own profit, he/she is quite intelligent, well-informed and can immediately make rational decisions. By doing so he/she is able to minimize the cost of his/her objectives. Based on these principles, the thesis of the market that meets all the criteria of the functionality of the economic system is widespread, particularly: efficiency, increased production per capita, balance, stability and equitable distribution. However, the simulated market functions in a social vacuum, and has no educational, informational and emotional limitations. You can guess that the rules of the competitive environment are formed spontaneously by trial and error, and therefore the intervention of government is unnecessary or aimed only at taking care of the competitive system.

1.2.2. Economic Growth Criterion

The ability of economic systems to achieve the objectives of economic management is the evidence of their effectiveness. The efficiency of an economic system depends not only on decisions in the field of micro- and macro-regulation, but, in short, on existing mechanisms of interrelations and the coordination of the behavior of economic participants. The effectiveness of economic systems is demonstrated by their ability to reach the objectives, towards which society, groups thereof and individuals gravitate. This fact causes the great difficulties in assessing the functionality level of individual economic systems, because it is impossible to make evaluations regardless of what goals people are seeking and by means of what criteria they organize always complex structure of goals.

From the viewpoint of individual participants of economic management, only those economies are recognized as functional, which are beneficial for each of them or enable them to reach their own objectives. In this case, functionality is identified as efficiency. According to ever growing needs and a growing population, effective economic systems should have such control mechanisms that guarantee the growth of social welfare and quality of life. However, the fundamental problem is the duration of the national economy's production growth per capita. Hence there are the main criteria of efficiency and economic growth. However, economic growth, as measured by GDP per capita, cannot be an apt sign of the condition of the national economy, social welfare and quality of life. In order to eliminate deficiencies that arise as a result of the underestimation or overestimation of the value of the national as compared to foreign currency, it is necessary to set the value of GDP according to the so-called purchasing power parity. Instead, to reflect economic development to the cost of GDP better, it is necessary to add the estimated production cost of the shadow economy and deduct the cost of estimated damages associated with the contamination and degradation of the environment. To determine the influence of the structural effects of economic growth on the quality of life, it is necessary to use a package of analytical indicators. Currently, international statistics operate using synthetic indices of economic development and the quality of life, such as the Index of Sustainable Economic Welfare (ISEW) or Measure of Economic Welfare (MEW). However, none of the indices of economic development and quality of life has gained universal acceptance and is not published regularly.

Historical experience shows that long-term economic growth cannot be achieved without increase in productivity factors. Continuous

economic growth is associated with technological progress, which allows going beyond the boundaries that limit the growth of production in accordance with the law of diminishing marginal productivity.

The classical theory of economic growth proves that to maximize long-term production and welfare per capita, the economy needs to show continuous sustainable growth. This means that the economic system should be able to balance supply and demand at any time. In this case the criterion of balance will apply.

The measures of governments that intervene and the desire of society usually give preference to high economic growth, which threatens the stability of actual processes. The philosophy of high rate of economic growth has almost never been opposed, until the formation in 1968 of the Rome Club, which dealt with the issue of the research of economic growth limits. As a result, it became clear that high rates of economic growth cannot be interpreted as the only effective way to increase the wealth of nations, eradicate poverty and improve the quality of life. It could happen that the factor limiting public welfare becomes the cause for the disruption of the ecological balance and subsequently also an environmental crisis, caused by the excessive expansion of the global economy. Hence the question arose about finding a new means for economic growth, which will increase social welfare to the maximum for a long period, but taking the ecological balance into consideration. Supporters of investment growth models pointed out the limit of economic growth, acting according to the efficiency criterion, this limit being connected with the so-called golden rule of accumulation[4], but the supporters of growth, who professed the ideas of lasting and balanced development, spoke in favor of zero growth. Contrary to currently popular literature, pointing out the dangers that threaten the survival of man and derived from the philosophy of expansive growth (threat to the ecosphere, exhaustion of non-renewable resources, etc.), there are many supporters of high rates of economic growth. Such appeals are heard from supporters of a possible immediate reduction of differences in the development of post-socialist countries.

However, the concept of zero growth is extremely controversial not simply because of the interest of poor societies. It does not give incentives to find ways to reduce growth costs. To reduce the growth rate of all production is a very simplified solution and socially less optimal than to intensify the search of the ways to reduce the cost of economic growth.

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[4] *Index of Sustainable Economic Welfare* (ISEW) was studied by G.E. Daily and J.B. Coob Jr. in 1989, see more: Gil, Śleszyński, 2000.

Forces on a global scale could be directed towards reducing the cost of economic growth to support the foundations of long-term and balanced development. However, it requires the replacement of GDP as the criterion of performance of economy by a new measure, which would cover the full set of factors that affect the quality of life in the economic development programmed by governments and the social assessments of the program[5]. However, more adequate measurements of the quality of life will not solve the problem of the selection of the desired rates of economic growth and the economic development model, which are always the result of the autonomous decisions of market participants and other entities that regulate economic activity, because these decisions are based on specific value systems that facilitate or limit the definition of the foundations of long-term and balanced economic development. In this respect, the efforts of governments should be focused on education, teaching people to be aware of environmental protection and the promotion of long-term and balanced development.

In Poland, a high rate of economic growth, which would have helped to reduce the lagging behind of development to the average GDP per capita in EU countries, will only be possible when all components of global demand, i.e. household consumption, investment and export, is the driving force of this development growth, which means that the strategy for reducing the gap in development and drawing closer to EU countries will be very difficult to implement.

Judging by experience, an economic growth rate of less than 2.0 % per annum is not enough to meet many basic needs, and leads to the deepening of social conflicts. Such economic growth is not sufficient for developing and underdeveloped countries, which include Poland and Ukraine, as it results in a deepening in the difference in development as compared to developed countries and a further increase in unemployment. It is difficult to modernize the economy with low GDP growth, because attempts to do it would lead to a sharp increase in already very high unemployment. Given the problems arising from high unemployment, at the very least, Poland needs for the GDP to grow by 5 % per annum and this figure should stay stable for a long period, since at present, according to estimates, GDP can reduce the unemployment rate by 1 %, and the country's development gap, compared to the EU average will reduce over two generations. According to many economists, a delay in growth, or in other words, zero growth, is meaningless. «Humanity has experienced long periods of actually stagnant state only because technology has not changed or changed very slowly» (Sauvy, 1973).

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[5] The reasons for increasing the difference in development between the EU and the US, I analyze in the article: Woźniak, 2000.

1.2.3. The Balance Criterion

The long-term inequality of supply and demand, which exists both in a market economy and in an economy controlled by the state, gives the impression that disbalance is typical and ubiquitous. It even seems that there are some forces inherent in this type of economy, the result of which as regards the system, is that once disturbed, it is unable to return to balanced growth. According to the Keynesian theory of fixed prices, it can be concluded that in actual fact, there are only unbalanced systems. Market coordination creates restrictions on the part of demand, and the state creates a restriction (central coordination) on the part of proposals, or, in other words, the resources of production factors.

There are major qualitative differences between unbalanced growth, which is realized through markets, and controlled growth (Mishan, 1986), (Kornai, 1985). Unbalanced growth in the economy, managed by the state, reduces the efficiency of production and consumption, quality of life and spurs economic development. In this case, a buyer becomes a visitor, who has to make considerable efforts to pay for the basket of goods and services that meet his needs. Their deficiency bows to distribution, which in turn bows to inefficient disputes about access to resources and the distribution of other opportunistic practices. Their side effects are the widespread violation of rules of social coexistence (selling under the counter, abuse of power in order to find outlets for the selling of products, sales of shelf warmers, loss of free time in the search for goods, etc.), the psychological tension of a person, moral damage and numerous conflicts. Such distribution of income, which differs from the previously planned tasks and initial benefits, is also mandatory.

In this case, the reduced efficiency of production is concerned with the forced replacement of resources or the structure of production, poor labour discipline, interruption in work, excessive pressure on quantitative growth, the deterioration of the quality of goods and services, the high cost of production, lack of motivation for technical progress and improving the quality of products. The inefficient use of resources involved in manufacturing is softened by the significant use of all human and material resources in manufacturing, thus, we have: exhaustion, in time, of driving forces of economic growth and the long-term nature of the deficit in the centralized planned economy. Countering the trend towards the reduction of economic dynamics is possible, as long as there are still unused production resources, or as a result of the less effective regulation of production.

Restriction of demand, which is characteristic for a market economy, diametrically changes the positions of a seller and a buyer.

In such a situation, a manufacturer and a seller are forced to look for a buyer, which takes a lot of different, both productive and organizational efforts. However, unbalanced growth under these conditions has some negative consequences, such as: unemployment, the excessive expansion of non-elementary needs and in view of this, the violation of the sovereignty of a consumer and the imposition of a «to have more» life style, materialization and the dehumanization of social relations. Thereto, conditions for maximizing profits and risks, feelings of insatiability are created and a hedonistic mood begins to dominate. There also appear to be many other diverse side effects, such as environmental threats, the depletion of natural resources and more conflicts on an international level due to the lack of feasibility to implement consumption standards borrowed from highly-developed countries on a global level, difficulties arise both in societies where generations, accustomed to live in surplus wealth and in those where it is considered appropriate to abandon the path of economic growth.

Following theoretical interpretations, accepting a simplified image of economy, which enables the creation of its theoretical model that is limited by three factors: knowledge, the effective result of which is productive labour, capital and labour, this model makes it possible to set conditions for sustainable growth. Modern economy can boast achievements in this field in the form of models which can lay the ground for economic policies based on Keynesian, classical and endogenous theories, which indicates the possibility of accelerating economic growth and convergence to highly developed economies due to skilful investment in human capital[6].

According to the Keynesian approach, balanced markets only happen by chance. This is due to pricing agreements between parties to transactions, which make it impossible to discount for certain shorter periods (stability of prices). Solid prices arising from the obligations stipulated in the agreements in the case of falling demand, result in a balance, provided that productive forces are not used in full, and in the case of growing demand it is possible to achieve a balance for the full use of productive forces in each instance. Achieving a balance at the level of the full use of production factors may be due to rising incomes, and, therefore, demand. The initiation of this process through centralized strategic coordination by using instruments of fiscal and (or) monetary policy is essential, because markets without government intervention can come to standstill at this level of balance, which does not guarantee the full use of productive powers and economic growth.

[6] Overview of representative models of economic growth for the above theories can be found in: Woźniak, 2004.

In a market economy, sufficient flexibility in prices is a condition for the deviation of the actual level of economic growth from sustainable growth. In market models based on the classical economics paradigm, it is guaranteed by the free market, and intervention from outside the market (country) is not necessary for actual economic growth to occur by means of balance. The only justification for non-market regulation is the elimination of sources of the inviolability of accompanying processes, related to information constraints and the limitations of free choice.

1.2.4. Stabilization Criterion

The stability of actual processes in the economy can also be called the consistency of changes or their similarity. Stabilization is the process of bringing the aggregate of actual processes or its components in line with the uniformity of changes in these processes in terms of time and subject fields. Their synthetic expression is the stable nature of changes in the GDP and its components (consumption, production growth of individual sectors of the economy, etc.), as well as the relationship between them, for example, the level of investment and capital intensity ratio. Instead, instability is associated with fluctuations in GDP growth levels and other characteristics of economic growth over time. The stability or instability of actual processes in the economy may be related to different time and subject fields. In practice actual processes in the economy are caused by fluctuations in the state of affairs, resulting from demand or supply shocks.

In a narrow interpretation, stabilization can pertain to prices, employment, receipt of investments, equilibrium on this market, public sector, external trade, etc. In a broad interpretation, stabilization is identified with the equilibrium providing labour resources are used in full. This is why the stability of the economy requires that in order to preserve the balance, the level of economic growth must at least correspond with the level of population growth. Thus, the stability of economic growth levels is identical to their sustainable level per capita. This means the stagnation of living standards. In order to ensure an improvement in the population's standard of living, long-term GDP growth should exceed the average level of population growth, and growth stability should be considered in accordance with the level of GDP growth per capita.

The level of economic instability, according to some segments of the economy, can be manifested by means of the rate of inflation, unemployment, budget deficit, **current turnover** deficit and others, and its total measure could be the difference between the level of actual and potential GDP, i.e. such, which can be achieved on condition of full job placement and the full use of production powers.

A high level of instability in the economy raises a number of negative consequences in the form of additional public spending and the waste of resources (unemployment, unused production apparatus, bankruptcy of inefficient enterprises, fall in interest to make investments, etc.). This is why economic policy should be directed towards reducing instability, i.e. to a level that does not restrict long-term development and the growth of economic welfare.

The development of statistical analysis instruments and spreading of awareness of the fact that the interdependence of development and its high ranking driving forces, which cannot be easily identified and which are of a complex nature, caused a departure from the tenets of the sustainability of economic growth in the deterministic sense, i.e. stability of the level of changes. In this regard, the stability criterion can be stated as the lack of significant changes in the formation of the values of individual variables during the entire analyzed period. The intangibility of these changes is demonstrated by the ease of their control. From this perspective, acceptable limits of the dynamics level of the major characteristics of economic stability are defined for the purposes of economic policy.

The role of some factors and growth conditions, as well as factors that difficult to measure, which are variable over time, the role of which is determined by the so-called random component in the growth model, lead to the fact that the stability of growth, even in terms of its sustainability, can be spoken about according to certain time limits, within which growth conditions are not subject to significant change (for example, within the scope of the identical creation of technologies, types of control mechanisms, similar level of scarcity of some resources).

There are no ready-made samples of stabilization policy that take into account the specific structural deficiencies of post-socialist countries. The inadequacy of concept provisions, focused around price adjustments that contribute to the development of monetarism or other scientific trends, and moreover of quantitative constraints associated with Keynesianism, leads to the recommendations associated with these concepts being highly controversial.

The exclusive set of stabilization purposes causes difficulties in setting proportions between these purposes, particularly between the scale of the inflation rate limitation and appropriate measures, guaranteeing support of economic growth processes. In this case, the controversy also concerns the priorities of maintaining an external and an internal balance.

An interesting concept for the stabilization of actual processes is provided in the criteria of the Maastricht Treaty designated for EU Member States. They are aimed at slow long-term growth, which corresponds with the desire to develop similarly to the societies of leader-

states. In this respect, its usefulness for the states that have to cut a significant development lag is sometimes questioned in economic policy. Concerns when attempting to apply these criteria are not accepted by the supporters of liberal economic policy. It should be noted that the possibilities of accelerating economic growth in poorer EU Member States to facilitate the convergence process occur on the basis of subsidiarity, which provides support from the structural funds, and the cohesion of development processes. There is also a certain lag of freedom in fiscal regulations, which can serve the stabilization of the economy and accelerate its growth.

The stability of economic dynamics lays the foundation for balance as a state, which is generally rare, instead stability, as a process of an approach towards balance, can be inherent in long-term economic growth if macro regulation mechanisms have instruments with stabilizing features (flexible prices, automatic stabilizers established by economic regulation centres).

Trends of periodic increase in the pressure of changes of actual processes in a market economy have become an impulse to study economic conditions and the stabilization policy, facilitating the path towards sustainable growth.

In recent decades the trust of scientists, politicians and society in forecasts, based on the analysis of development trends has decreased significantly. This is because such forecasts require an unrealistic basis with a high degree of similarity in activity conditions in the periods subject to forecast, or a good awareness of possible changes in these conditions. Meanwhile, the experience of the postwar period provides enough evidence that activity conditions change very quickly, so science and society do not have time to recognize and regulate them. This is due to the spread of new generation technologies, caused by the information and telecommunications revolution, and the liberal regulation mechanisms that result in an increase in tension as regards a change in consumption, lifestyles and other social processes. This new process is called globalization, and the resulting global capitalism raises the question of the optimality of stabilization programs inherent in the technological stage of a post-industrial economy and the rules of thought, as well as the activity of modern society (Stiglitz, 2002; Giddens, 1991).

If the business cycles had not been deformed by the intervention of the state, there would have been some grounds for forecasting market conditions, using theoretical models proposed by economists, which are based on an acceptable level of forecast probability. However, this is quite difficult in practice, because economic processes involve different types of shocks, most of which are the result of decisions of regulation centres which are important for the national economy, but those that do

not always realize the consequences of the long-term effect of these regulations. In other words, under conditions of cognitive, informational and emotional constraints people make mistakes, which result in the accumulation of events and processes causing fluctuations in the development processes, including economic growth. People learn from their mistakes, so there is changeability in the causes for development processes, generated by the actions of people. It is this changeability of causes in time, together with random shocks arising from economics-related processes (climate change, sudden bursts of social conflicts, new technologies, etc.), that makes it extremely difficult to forecast economic conditions.

1.2.5. Economic Efficiency Criterion

Economic systems that force the minimization of costs for reaching the set objectives are also an economic efficiency criterion. Effective behavior means the reasonable use (based on scientific approach) of scarce resources and requires the systematic calculation of costs and benefits for available alternatives choices and the adoption of the most useful decisions for the manager. In terms of praxeology, effective behavior means maximizing the function of objectives at a defined cost.

Efficiency on the microeconomic level is measured by using the synthetic and analytical indicators of profitability, productivity or efficiency. In case of *ex post* analysis, such simple indicators objectively measure effectiveness in various aspects of management.

On the macroeconomic level, efficiency means the movement of the economy towards economic growth, which ensures the full use of production powers and employment for everyone, who agrees with the wages formed on the market. As for the national economy, GDP *p.c.*[7] is a synthetic measure of its efficiency. Instead, systematic and long-term differences in the dynamics of GDP *p.c.* between national economies can be interpreted as measures of the performance of these economies and the convergence or divergence of actual processes. However GDP in terms of population in the productive age is a more accurate measure of the effectiveness of the economic system. GDP *p.c.* can also be calculated per unit of working hours. The original measure of macroeconomic efficiency is the so-called Solow residual (TFP — *Total Factor Productivity*), which is calculated as the surplus of the actual level of GDP *p.c.* growth over the contribution of physical capital and labour in it (Woźniak, 2004).

In neoclassical economics, economic efficiency, which is understood as the general ability to minimize costs during the achievement of

[7] P. c. — per capita, per head of population. (*Note of editors*)

objectives, suggests that society is composed of isolated individuals, who maximize their own benefits, defined by market categories. Thus, in accordance with this approach, an effective economic system should be directed towards the reproduction of individuals, which means that it has to be based on a competitive system.

If you take for granted the assertion that selfishness is a long-term, essential feature of human nature, it is necessary to recognize that the nature of the human individual cannot be transformed in the process of the execution of private, market, political or other public roles. It means that simulating each of these roles, the individual seeks to maximize his/her own profit within existing constraints[8]. As we can only be sure that the most common and strongest motive of human activity is selfishness, then it should serve as a basis for the coordination mechanisms of economical efficiency and justice and the bases of social organization. According to this interpretation of human nature, markets function not only in the economic plane, there is also the political market (democracy), intellectual property market (patents, licenses, copyrights), there are also restrictions on their distribution in other spheres of human life, including the spiritual sphere or the sphere of nature and living of «biological man» (trade in rights for the emission of environmental pollution, commercialization of axiological values and the recognition of moral relativism, commercial use of genetic discoveries). The effect of these processes is the distribution of competitive logic, which should civilize the struggle between the stronger and the weaker and force the latter to be self-responsible, and thereby destroy the sources of unfair gains on human altruism.

The intensity and prevalence of the pursuit of excess profits is a determinant of the level of efficiency of an economic system. It also means the spread of cheaper methods of production. An efficient economic system will spread and intensify the effectiveness of human behavior. It should also be noted that the maximization of usefulness by consumers, in other words, the pleasure of consumption compels manufacturers to target production to the needs of users, since the only profitable products are those, which will be approved on competitive markets. On this basis, it is possible to conclude that to ensure the performance of an economic system it is unnecessary to apply strategic centralized coordination, which forces manufacturers and suppliers to be effective, and moreover requires the coordination of the hierarchy of goals. The level of efficiency determines the nature of competition. Targeting efficiency in a competitive environment is the initial and necessary condition of survival. The more acute and widespread the

[8] The basics of the theory of social choice are provided in: Buchanan, Tullok, 1962.

competition is, the more efficient the economic system will be. Since economic efficiency becomes the main criterion in a market economy, the tendency to spread its mechanisms in different spheres of human life becomes more evident.

Treating human nature as individualistic, it is also possible to formulate requirements to a liberal state, not a solidary one. At present, it serves as a basis for the formulation of arguments for liberal economic thought — from restrictions on the function of the state to ensuring the free choice of the individual, private property rights and the execution of contracts. By doing so, the supporters of such views, state that for public interests the best is a status, whereby each individual does that which is in line with his interests.

In modern economy, the Pareto efficiency criterion is used, which is understood as a sharing of resources as a result of which it is impossible to improve the situation of any participant of economic management without simultaneously deteriorating the situation of at least one of the participants of this process. Thus, the art of effective management means searching for the situations existing in practice, when it would be possible to increase the benefits of individuals without reducing the benefits of anyone else. Instead, the task of the economy is to find new distribution mechanisms, which would accompany the above Pareto benefits.

In view of the foregoing, it can be concluded that the Pareto efficiency criterion overlap with individuality and a human, reduced to the scale of an individual. The theory of welfare deduced from its behavior is based on the evaluation of welfare formulated by individuals, whose opinions on this issue are the most reliable, since no one else is better oriented in this field of interests. Formulated in such a way, the efficiency criterion only treats inequality as a comparison of benefits and funds that are unconditional. As a result, the allocation of resources, whereby the welfare of the richest improves, but welfare of the poor does not, is perceived as effective, or such a situation is considered efficient, when the welfare of the wealthier increases faster than that of the poor.

In the context of the welfare theory, it is possible to make some important conclusions concerning the above effectiveness.

1. If the economy is competitive, it is efficient in terms of Pareto definition.

2. According to efficiency formulated by Pareto there are many options for distribution, serving as its criteria.

3. Any effective distribution in terms of the Pareto interpretation can be achieved by guaranteeing competitive markets.

4. The existence of non-market coordination is not a necessary condition for the efficient distribution of resources and its coordination with the fair distribution among individuals.

5. In the matter of coordination of efficiency and fair distribution, according to Pareto efficiency, the only and fundamental action of the state is to change the original structure of property distribution, and competitive markets ensure its maintenance as required.

6. The fundamental functions of the state are associated with its concern for effective competition to ensure efficient production, changes and the effective structure of production, should it be violated in practice.

According to the above conclusions it follows that if economic subjects had the nature of a one-dimensional individual, would have functioned under conditions of perfect competition and relied on the provision that the initial state of distribution is treated as fair, it would be possible to agree that in an economy formed in this manner, there would have been a status that would guarantee social and economic cohesion or effectiveness and fairness. It should be emphasized that it would be the state of balance that meets the requirements of the Pareto optimum. Unfortunately, it would be a state of static balance, devoid of incentives to increase production, which would not have transitions from one state to another.

To maximize efficiency, it is necessary to have unlimited access to all material information and the possibility to process it, and this information has to be reliable. Since information is asymmetric, then in actual markets, the leader usually stops optimization calculations at the time when he finds the best solution or implements satisfactory efficiency. It should be added that in practice, the situation of «trash bucket» is also possible, which means that accidental and unsystematic decisions are made that seems to be associated with the emotional limitations of people, the nature of social capital and poor investment in human capital. Even now there are studies that explain the importance of emotion in the ways of understanding value (benefit). They are used to manipulate public attitudes and the decisions of consumers. Recent studies of «emotional rationality» (Fineman, 1993; Nelson and Quick, 2000) focus on: dependence between actual and imaginary emotions, the creation of rules in the field of the expression of emotions, the identification of deviations from behavior that are recognized as exemplary, playing on emotions to compel obedience. Despite irrefutable evidence that indicate the cognitive, informational and emotional limitations of people, latest research trends of the 1990s reject any deviation from the desire for efficiency in the classical sense. A rational decision-making process cannot offer lower economic efficiency as an alternative, if the hierarchy of objectives is known.

Regardless of material conditionality (e.g., technology, infrastructure), the above informational, cognitive and emotional limitations are the

source of incomplete rationality. Since they are connected with the institutional operation of regulation mechanisms of human processes and social capital development, these characteristics of the economic system at the present stage should be interpreted as determining economic efficiency.

1.2.6. Social Equality Criterion

Social equality is the most controversial postulate in the economic system. Economists agree as to its limit, i.e. search for such methods of income distribution, which would not influence economic efficiency. This is the only solution of economically grounded inequalities. Instead, there is still no unity as to the extent and conditions under which more than a marginal decrease in efficiency would be desirable.

The welfare theory envisages the settlement of the efficiency and justice coordination problem to maximize social welfare in the long run. According to this theory, the economic system implements a fair distribution, if it is able to reach the Pareto optimum (1927). Actual markets usually do not reach the Pareto optimum due to the widespread asymmetry of information because of the time lag and impossibility to avoid cases associated with risk and uncertainty. It results, among other things, in **allocation, distributive and stabilization** failures of the markets. However, even when the free market is efficient, the differentiation of income, which has taken place in it, can be regarded as unfair. The world of individuals, who maximize their own profit, has no need for solidarity, similar to that in Darwin's theory of the struggle for welfare, limits the possibilities of the weaker to use resources and may deprive them of this, even when they make their own contribution to this prosperity. Only the similarity of conditions (perfect competition, perfect information, the absence of time lags) leads to equitable distribution, which evens out income and minimum requirements.

The adoption of coordinated relations between the spheres of economy, technology, consumption, social, political, intelligence, human body and nature, in which it exists, and finally of axiology, means that in practice, it is necessary to think on the problems of such relations, which are difficult to resolve, even for the entire human intellect. In practice, this discussion is limited by some aspects, such as: a liberal or solidarity state, individualism or collectivism, selfishness or altruism, self-responsibility or social responsibility. Thus, reduced perception is only partially associated with a single multidimensional human development and its uniqueness in objective, subjective or territorial systems. The selective nature of this discussion that *de facto* accepts moral relativism

leads to the fact that concepts spread like simulacrums[9] and can be used easily as a means for reaching specific goals, especially in the struggle for power on the global, supranational and national levels.

Natural human desire, according to the holistic approach inherent in system analysis, cannot merely be value measured by market categories, or personal gain, instead it is the minimization of the risk of survival and ensuring the quality of life, which meets all the requirements of human life. Thus, the function of objectives of human existence becomes more understandable, fitting into its natural essence, since it comes from an unreal spiritual sphere and the aspiration for a just social order. This means that justice is an integral part of human nature. Its main function in terms of personal gain is to minimize the risk of survival. So the fact that the awareness of the risk of survival may not be in the minds of some people is not crucial.

Making the choice between efficiency and fairness requires the evaluation of state aid programs, as well as mechanisms and instruments for their implementation. For the economist, only such mechanisms for achieving social goals, which minimize the losses of economic efficiency, are fair. Unfortunately, there is still no consensus regarding the extent to which efficiency should reduce in order to reduce social inequality. There is also no common view on the relative value of a decrease in efficiency.

In a welfare economy, fair inequalities emerge as a result of the equal distribution of primary welfare, but in the more pronounced varieties of liberalism we have equality of resources, equality of rights in the freedom of choice (Nozick) (1974), as well as the equality of legal and political interpretation. For D.M. Buchanan, J.E. Stiglitz and other supporters of economically reasonable justice, the primary cause of injustice is asymmetry of information, the elimination of which reduces market failures and non-market coordination.

It is not enough to seek for fair inequalities based on the usefulness criteria, that forces the maximization of own benefit, since victims of long-term failures and shortages have no reasons to complain about the unfairness of distribution and moreover, they cannot do it effectively. Equality of chances due to freedom in everyday life, though it means a lot to limiting inequality, in the opinion of A. Sen (2000) does not explain the reasons of such an increase in resources. The founders of the German version of the social market economy (CPE) connected the resolution of

[9] Theoretical models do not solve the problem of the helplessness of a man, who is free to make his own choice. It is associated with the informational shock caused by the essentially unlimited heterogeneity of models that organize the rules of this choice, provided that moral relativism serves as a basis. Therefore, such models highly dramatize the problems of selection, that is influenced by the perfectionism of the human mind. See. more: Baudrillard, 2005.

this problem with the protection of dignity, which is derived from Christian social science. For H. Jonas it is not enough that markets are responsible for actual injustice. The need to protect human life also means the protection of a good life, the necessity to eliminate poverty (Jonas, 1966) as a result of the awareness of social responsibility.

According to the utilitarian approach, society consists of individuals and, therefore, favors the reduction of income received by the poor, only if there is simultaneously a significantly greater increase in the revenues of the rich. Under these conditions there is a tendency to increase income-property inequalities. According to J. Rawls (1994), no improvement in the welfare of a person, who lives better, can justify a deterioration in the well-being of a person, who lives in the worst conditions. This statement gives rise to the postulate of the more rapid increase of welfare of the poorest than of the richest, at the same time, going back and forth in the absence of poles as the first foundation of justice. However, in practice, the implementation of what at first sight appears to be such comprehensible justice depends on the play of interests in the political arena and the development of civil society. Legal regulation and democratic procedures for resolving problems of inequality generate doubt, because societies are different. There are also a number of issues connected with the unreliability of the state as a regulator of economic processes and coordinator of social and economic cohesion, which are extensively described in economic literature (Stiglitz, 2004).

The perception of a man, following orthodox economic thinking through the prism of personal gain and the formation of an institutional system with regard to the understanding of human nature inevitably leads to the understanding of a democratic state, which is essentially harmful to the competitive structure of the political market, which is unable to eliminate market imperfections in **distribution, allocation and stabilization** spheres. Such limitation of human nature means the artificial creation of the asymmetrical logic of thinking that has an adverse effect on the human aspiration for justice. Even if this asymmetry did not exist, the formation of an institutional system based only on utilitarian faith to meet needs and interests[10], will pose the question of their urgency and justice. Since there is a close connection between human nature and human understanding of justice, morality and laws that follow from them, the institutional system cannot ignore it. Thus, a necessary criterion of the functionality of the economic system should be equal rights and justice, i.e not only economically sound, but also

[10] D. Bentem defined the statement written in the Declaration of Human and Citizens' Rights as «nonsense squared», and the discoverer of DNA, Nobel laureate D. Watson calls conversations about rights as fantasies and advises that talks about rights should be left to the creators of movies and similar cultural works. See. more: Fukuyama, 2004.

ethically correct social inequalities. However, it is impossible to evaluate ethical justification abstracting from the rules relating to cooperation or social capital.

Under the liberal approach, civil and economic freedoms are fundamental and basically comprise sufficient condition of success in life of a human individual. Thus, the task of institutional order is to protect and strengthen these freedoms. Many thinkers were engaged in solving the basic dilemma of the functional institutional system, but they have always remained something of a Utopia. An attempt to harmonize justice and the competitive system, based on maximizing the individual's own benefit, was made by J. Rawls (1994). Justice derived from Rawls' postulate of the absence of poles cannot just be confined to the equality of chances. Its necessary supplement is equal opportunity (Sen, 2002). The implementation of these social objectives, which cannot be guaranteed by a market mechanism, requires the regulatory actions of the state.

The palette of choice of a system for the regulation of relations between economic efficiency and social equity is reduced to the following samples:

1. A liberal state, where economic efficiency criteria are unconditionally initial (Anglo-Saxon capitalism, a model of which operates in the USA and extends worldwide in the form of global capitalism).
2. A liberal and united state that coordinates economic efficiency and social equality (EU, Asian capitalism realized in Japan, South Korea and other Far East countries).
3. A liberal and united state that considers social equality criteria to be primary (the so-called third course).
4. A united and authoritarian state that subordinates efficiency and social equality criteria to political objective (communist, fascist states).

The societies of Central and Eastern Europe, with the exception of Belarus, rejected the extreme model of a united and authoritarian state, devoid of market coordination that had been practiced for several decades, currently replaced by state property with central planning. This was due to the complete fiasco of the economic system that ignored the efficiency criterion. The even dispersal of poverty did not meet the functional interests of a single large social group.

The third course, though attractive in terms of public relations, cannot be taken into account, since it is characterized by theoretical controversy and a lack of practical examples. The societies of post-socialist countries have previously paid a huge price for the risk in system creativity.

The Anglo-American model received the most recognition during the information and telecommunications revolution. It *inter alia* was manifested in proclaiming by the most reputable representatives of the

theory of economics, politics and business of the rules of the Washington Consensus, which had to guarantee the sustainable long-term economic growth and the formation of functional markets in post-socialist countries. Unfortunately, the deliberate lack of interest in social issues as a result of the clear priority of the economic efficiency criteria strengthens the competitive advantage of large corporations and the distribution of market rules in all spheres of human life. The economic, technological, cultural and political spheres remain in this version of capitalism under the influence of transnational medial corporations. As a result, all aspects of human life are subject to commercialization, i.e. the dominance of economic efficiency criteria. Democracy turns into telecracy, lacking the public control of a fourth power, which monopolizes the information sphere. It becomes an instrument and a source of the sudden distribution of the rules of thought and activity, and especially of the consumption patterns, lifestyles and utilitarian axiology proposed by global capitalism. Unfortunately, its main products are: a vast information noise, moral relativism, the displacement of the institute of civil society and the resulting decline of public trust. Under such conditions the decision-making process on social issues becomes complicated. The subordination of social decisions to the economic efficiency criteria leads to increased global threats[11].

According to the holistic approach, that accepts the competitive system, while based on the harmonization of social and economic cohesion, there is the concept of social market economy. Coordination of economic effectiveness and fair social inequalities is stated in EU legislation. It is reflected not only in party-states subsidiarity, which is mandatory and its possible interpretations, but also in structural and regional policy, with competition viewed in the light of social and economic cohesion. In the axiological plane, regulatory actions in favor of the above-mentioned unity are codified in the EU as obligations to respect human dignity, which are ideologically enshrined in the European Convention of Human Rights. The financial guarantee of social and

[11] 25 % of the world's population (1.2 billion) lives on less than USD 1 per day, about 58 % (2.8 billion) — less than USD 2 per day, 114 million children do not go to school (family poverty), every 3.5 seconds one person dies of hunger, 400 richest U.S. taxpayers received revenue of USD 69 billion in 2004, USD 120 billion covers the program to combat obesity in the United States, U.S. aid to poor countries comprises 0.15-0.18 % of GDP as compared to the 0.7 % of GDP declared by developed countries, the difference in salary of managers and workers in 1950—1969 was 20—30-fold, and in 1990—1999 it increased to 150-180 times, the difference in salary in the EU is 30-50 times higher than in Asia. Annual working hours comprises: EU — 1,600 hrs, Asia — 2,200 hours; the average annual salary: EU — USD 30,000, Asia — USD 1,000. 44 % of the world population (59 countries) is experiencing a demographic crisis (negative natural increase), there are forecasts that by the end of the 21st century, 20 % of the total population of the Earth will be able to produce goods and services that meet global demand.

economic cohesion policy at the level of the European Community, are structural funds and a cohesion fund set up to support the regions lagging behind in development.

Polish society, like most post-socialist countries of Central and Eastern Europe, has chosen the model of harmonization of economic efficiency with fair social inequalities substantiated by the acceptance of those criteria of social equality, which are mandatory in the EU. Moreover, in Poland, this model is supported by the constitutional postulate. The transition course of this model and its actual results are described in chapter 2.

1.3. Theoretical Issues of Economic Convergence

1.3.1. Introduction

The term «convergence» first appeared in economic literature in the 1940s and 1950s and was borrowed from the theory of systems and the theory of convergence. Excessive attention and growing skepticism connected with the possibilities to quite easily achieve sustainable economic growth in developing countries and in undeveloped countries, led to the recession, and later also to the marginalization of these fields of scientific thought (1960—1970). Repeated interest in the problem of differences in economic developments emerged in the 1980s, when a significant contribution was made to the identification of the mechanisms, factors and conditions of convergence by the theory of economic growth.

It should be noted that even though that fifty years has been spent on identifying the causes, factors and obstacles, and the conditions under which the difference in the development of countries is manifested, convergence is still associated with many problems of a theoretical nature. There are several reasons for this.

Firstly, it refers particularly to the relevant definition of this term, since it is not found in literature, the same can be said about systematization, because they would consider the system context of changes occurring in so-called catching-up economies. Secondly, if one considers that the thesis that the manifestation of differences in the development of countries is not accidental is valid, and is, in fact, the result of projected economic policies, the convergence in the real economies of rich and poor countries results from the application of macro regulation means. Therefore, questions arise about the key factors and conditions of the manifestation of differences in the development of countries.

1.3.2. Interpretation of Convergence

In Polish and foreign economic literature there is no clearly defined notion of «convergence». The most common can be considered the definition, in which the words «convergence», «similarity» or «assimilation» are used during the analysis of the socio-economic space of individual countries. In the interdisciplinary approach to convergence, it can be identified with the similarity or also assimilation of countries in specific areas of existence of the individual and society as illustrated in Figure 1.1.

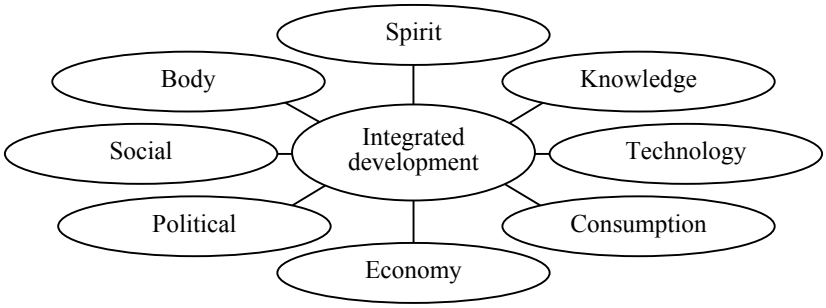

Figure 1.1. Spheres of Existence of the Individual and Society in the Context of Integrated Development (Horx, 2000)

In the macroeconomic interpretation, the relevant prospects for the definition of the notion of convergence give rise to speculation about the economic system. If in the economic system of any country, the sphere of regulation and the factual sector of the economy[12] are shaped, then the convergence of economic systems should be understood as assimilation occurring in both spheres. In addition, there are grounds for distinguishing the convergence of the spheres of regulation, and convergence of the factual sectors of economies and the separation of the political sphere.

[12] The factual sphere covers long-term determinants of economic activity, i.e. the material basis of production together with natural resources and manufactured industrial and consumer assets, population and changes in its structure. The regulation sphere covers the activities of people as producers, representatives of centers of state power, separation principles, consumption changes, legal rules and social norms related to economic processes (Woźniak, 1993 : 16). Therefore, the sphere of regulation can be identified with the economic system in a narrow interpretation by L. Balcerowicz (1989 : 15), which other authors define as «systemic factors» (Pajestka, 1975 : 47-48), «system for the functioning of the economy», «economic mechanism» (Kornai, 1977 : 70) or «economic order» (Leipold, 1985 : 37). Given according to: Balcerowicz, 1989 : 15.

Convergence of the regulation sphere in economies can be considered in the context of a legal order, generally accepted and approved rules, examples of social, ethical, religious and family values that determine the economic processes. That is why this type of convergence can be understood as a process of the assimilation of countries in the sphere of functioning social and economic institutions, i.e. formal institutions and informal institutions that are mandatory in state economies. Formal institutions of social and political life are associated with the rules and patterns of conduct set forth by laws, i.e. the political (democratic or undemocratic) system, competitive type model (socialism and capitalism models), etc. Therefore, they belong to competitive market institutions. In turn, informal institutions connected to economic processes result from the spread of the axiological system based on religion, culture, the established traditions and beliefs that generate the fundamental values of social order, lifestyle or family model.

If the convergence of the regulation sphere is a fairly homogeneous conceptual category, the convergence of real economies is much more differentiated. This emerges from complex processes in real modern economies, and in the separated space for research connected with the real sector in the economy. Hence, the likening of the real sectors between countries, and then it will be possible to talk about the prospects for both real and nominal convergence.

The real convergence of real sectors can be identified with the process for limiting differences between countries on the level of economic development and that of the quality of citizens' lives. However, it should be noted that the similarity process, as defined above, can be viewed in the dual theoretical and empirical context. Firstly, the real similarity between the economies can be regarded as a prospective area to study the economy of growth, which lies in the analysis of growth rates and levels of production/income of the countries surveyed. Secondly, it may refer to the space for the study of the economy of development, which along with the level and rate of change of income, including per capita, also takes into account other economic variables that have a significant impact on the level and quality of life. Therefore, given the distinct methodological differences existing between the economy of growth and the economy of development, the difference between real convergence in the narrow sense and real convergence in the broad sense seems essential.

Real convergence in the narrow sense can be understood as a process of limiting inequality between countries in the field of the generated growth rate and production level. This interpretation allows the identification of convergence, based on the economic growth model. However, the detection of growth similarity or lack thereof on the theoretical basis, is due to an analysis of changes in the levels of basic

units of macroeconomic growth models, such as physical and human capital resources, labour, technology and knowledge resources.

It should also be noted that the above definition of convergence does not convey the full essence of this notion with reference to the real economy sphere. The main characteristics of economic growth, despite the fact that they cover fundamental effects and production resources, still do not include many components, sufficient for the assimilation process. In addition, the changes taking place in the real economy should be analyzed in the context of consequences for the development process, which includes a set of changes made in the structure and functioning of the economy and society (Stacewicz, 1988 : 28—30). As a result, the comparison of changes taking place in different economies should be treated as a multidimensional process that covers the reorganization and reorientation of the whole social and economic system. Along with changes in national income and production, it is also expedient to take into account institutional, social and administrative changes, changes in social relations and types of behavior as well as the evolution of habits and beliefs (Tadaro, 1986 : 61—62, given by: Kozak, 2001 : 17—18). Therefore, to guarantee economic development it is necessary to ensure (a) a systematic improvement of living conditions, and, thus, guarantee real income at a level that is not lower than the one currently in existence; (b) material conditions for further development, or defined payments for the return, modernization and increase of property, and (c) an adaptive capacity of the economy, and therefore, the accumulation of property and financial reserves (Stacewicz, 1988 : 28—30; Piasecki, 2003 : 15).

Accordingly, real convergence in the broadest sense can be understood as a process of limiting economic inequalities between countries and regions (Marini, 2004 : 1). This interpretation of convergence is connected primarily with the question of the similarity of indices reflecting economic development, especially those that characterize the growth rate and GDP per capita; budget deficit; social spending; current revolving account; balance of foreign trade; the aggregate of other structural changes in the socio-economic domestic economy belonging to the technical infrastructure and environmental protection, industry, agriculture and service sector, labour market, technology market, market for the distribution of public subsidies and so on.

In the narrow sense of the real convergence of the real sector there are several notions identified with convergence. It refers first of all to conditional and unconditional convergence, the convergence of growth stages and income levels, β and σ-type convergence, global convergence and convergence clubs. It should be emphasized that the clearest distinction is between conditional convergence and unconditional (absolute) convergence (Solow, 1988 : 307—317; Islam, 2003 : 309—

362). Instead, other types of convergence are separated as a result of the modification of the primary principles of R.M. Solow's model and conducted empirical research.

Unconditional or absolute convergence refers to a situation, whereby economies characterized by similar structural parameters, i.e. technology, degrees of saving, natural growth or degree of the depreciation of physical capital, are passing through balanced growth with stable levels of capital and production per worker. The result is unconditional or absolute convergence between the economies of the world (Islam, 2003 : 309—362; Woźniak, 2004).

Conditional convergence, in turn, opens up many ways for harmonized growth. With this expected perception of convergence, it is considered that individual countries differ according to economic structural parameters. Therefore, any economy is inclined to have a unique course of balanced growth (Barro, 1992 : 202).

As mentioned earlier, nominal convergence can also be considered within the convergence of the real economy sphere. In an economic analysis of the development of financial markets, mainly in the European countries, this type of convergence is associated primarily with the convergence criteria that were formulated in the European Community's (EU) Maastricht Treaty. It focused on achieving similarity between the EU Member States in the sphere of inflation rates, interest rates and monetary aggregates[13], i.e. speaking about exchange rate criteria, each country must join the ERM II exchange rate system within at least two years[14] (Chielewski, 2003 : 7, also see Herrmann, Jochem, 2003 : 323—327; Holmes, 2002 : 6—20).

1.3.3. Dilemmas of Measuring the Similarity Process

Empirical studies of convergence lie in the quantitative presentation of the phenomenon of similarity, assimilation or limitation of economic differences between the countries analyzed. The proposed definitions and ways of perception of economic convergence may necessitate complex analytical operations to establish this phenomenon. Most studies that

[13] The inflation rate cannot be higher than the level determined by average inflation as calculated for the three states with the lowest inflation among the EU Member States, increased by 1.5 percentage points; the budget deficit cannot exceed 3 % of GDP; public debt cannot exceed 60 % of GDP; long-term interest rate (calculated on the basis of 10-year treasury bond with the constant accrual of interest) cannot be higher than 2 percentage points of the average relevant interest rates in the three EU countries with the lowest inflation; the country should observe the regular deviation in fluctuations (+/– 15 %) of its currency within the ERM.

[14] ERM-II — exchange rate mechanism. (Note from the editors)

confirm the hypothesis of convergence consist of assessing the existence of the similarity of beta (β) or sigma (σ) type. In addition, these studies are often limited to the analysis of the level and rate of change in output/income per citizen (GDP per capita).

The difference between β-type and σ-type convergence is attributed to R.J. Barro and X. Sala-i-Martin (2004). β-type convergence is based on the fundamental principles of the neoclassical growth theory, where the factor of physical capital is characterized by decreasing marginal revenue. Therefore, the accumulation of this production factor brings larger benefits in the form of growth of income per capita to countries that are poor rather than rich. With identical savings, which are understood to be part of unused income, poor countries will approximate the level of their income per capita to that of rich countries. Given this, the correlation between the level of initial income and degree of economic growth should be negative[15].

Instead, σ-type convergence manifests itself in a situation, whereby disproportions measured, e.g. by the standard deviation of logarithms of income per capita or production between countries, decrease over time (Próchniak, 2004). In addition to a clear distinction between β and σ-type convergence, there are cause-effect relationships between them. This means that β-type convergence (poor countries are characterized by higher degrees of growth than rich countries) is a necessary, but not sufficient condition for σ-type convergence (reduction of generated inequalities of income or production per capita between countries)[16].

However, it should be noted that the distinction between these types of similarity is connected with problems of an analytical nature. R.J. Barro and X. Sala-i-Martin (2004 : 242) found that upon the presence of β-type convergence, the dispersion of income per capita should not decrease over time. This means that β-type convergence may take place in the absence of σ-type convergence. Therefore, we can conclude that σ-type convergence is a better evaluation criterion of similarity.

In addition, M. Friedman (1992) proved that β-type convergence to a lesser extent reflects the process of similarity in the case of the so-called **Galton's fallacy**[17], or a different regression towards the mean. The impermanence of initial income per capita fluctuations in the researched group of countries can result in a negative coefficient of regression, even when a variation of income per capita shows no tendency to

[15] Therefore, negative value of β regression confirms the presence of β-type convergence, which equally applies to the stages of growth and income levels (Barro, Sala-i-Martin, 2004 : 242).

[16] This problem, however, is very controversial, see: Barro, Sala-i-Martin, 2004 : 242.

[17] «Galton's fallacy» originates from the surname of a French statistician, who analyzed the height of fathers and sons. He discovered that sons of tall fathers grow shorter than their fathers, while fathers of tall sons seem shorter than their sons.

decrease. β-type convergence implies that countries with lower than average initial income per capita are characterized by more rapid growth than countries with higher than average initial income. In addition, β-type convergence can be accompanied by a constant or increasing value of standard deviation or variation coefficients, which exclude the presence of σ-type convergence. Therefore, according to M. Friedman, convergence studies are not indicative because of the the existence of the «Galton's fallacy».

To better highlight the similarities F. Lichtenberg (1994, given by: Paschaloudis and Alexiadis, 2006) proposes the use of the S_{iT} indicator:

$$S_{iT} = \sqrt{N}\,\frac{\hat{\sigma}^2_{i,1} / \hat{\sigma}^2_{i,T} - 1}{2\sqrt{1-(1-\hat{\beta}_t)^2}},$$

where N — number of observations; $\hat{\sigma}^2_{i,1}, \hat{\sigma}^2_{i,T}$ — variability of income per capita according to the first and last study periods.

The S_{iT} indicator takes into account correlations between the decrease in the inequality of income per capita and the differentiation of the stages of its growth between the countries studied[18]. The results of evaluation of β and σ-type convergence may be acceptable if the level of the S_{iT} indicator is statistically different from zero. If S_{iT} is equal to 1, then the studied countries reach full convergence in view of the studied variable.

Given these differences connected with the difference and interdependence between beta and sigma convergence, it only seems surprising that most authors ignore both the observations of M. Friedman and the proposals of F. Lichtenberg.

1.3.4. Factors and Obstacles to Reducing the Difference in the Development of Countries in Economic Theory

During the laying of the scientific system of economy in the 18th century, land resources, which included natural raw materials and lands, were considered the key enrichment factor of states and people. Classical economics, in turn, perceived the accumulation of physical and financial capital as the fundamental role in economic development. Classical scholars of economics (A. Smith, A. Marshall, 1920; given by: B. Pazza-Georgi, 2002) also noted the significant impact of the skills that

[18] It should be noted that in spite of the the benefits of the S_{iT} indicator, several authors use it to conduct empirical research. See more: Paschaloudis and Alexiadis, 2006 : 233—249.

employees were endowed with on economic growth. However, they failed to find out how a man and his personal traits affect the flow of real processes (Kondonassis et al., 2000 : 17-23). This is why, further observation of the human factor (other than physical labour) was made with regard to future capital in a broad sense, which along with physical capital also included justice, religion, literature, art, education and creativity (I. Fisher, 1906 : 55). This homogeneous interpretation of capital in the economy existed until the mid-20th century.

In the 1950-1960s, physical capital began to be interpreted as a necessary and sufficient condition for the development of undeveloped and developing countries[19]. Economists of that time, mainly representatives of modernization theory, were primarily interested in the problem of the creation of surplus capital, required for the emergence of self-supporting economic growth. A special contribution to the modernization theory was made by W.W. Rostow (1960, 1971), who proposed the concept of staged development, i.e. the transition from traditional to modern economies. He proved that the «start» of an economy to self-supporting growth occurs *sensu stricto* with the accumulation of physical capital. During the start period, which lasts about 20-30 years, the increasing degree of physical capital accumulation accelerates the growth rate of the economy, causing positive changes in production technologies. P. Rosenstein-Rodan (1943) proved that the minimum (basic) level of physical capital, which leads to the development of an infrastructure and the beginning of entrepreneurship, is a critical condition for overcoming gap barriers in undeveloped and developing countries. However, R. Nurske (1962) saw lack of savings and investments as key barriers to the accumulation of capital in these countries. It should be noted that these authors considered factors and growth conditions in different ways. W.W. Rostow emphasized the crucial role of social and political structures, cultural values and the open or closed nature of international markets. A.P. Rosentein-Rodan pointed to some socio-economic aspects. However, representing an exclusively economic point of view, scholars skirted around or avoided the analysis of various social or institutional conditionalities and factors of economic growth. From this perspective, the concepts presented were the subject of severe criticism from economists of the school of dependence (Kozak, 2001).

Some economists, who became famous in the 1950s and 1960s as the founders of general development theories, stressed that accumulation is a necessary, but insufficient factor of development (Kozak, 2001 : 88-89).

[19] A special role is attributed to M. Kalecki, R.F. Harrod and E. Domar, who first drew attention to the accumulation of physical capital in the context of mathematical models of economic growth. See more: Piasecki, 2003; Piasecki, Wolnicki, 2004; Wiarda, 1999.

For example, A. Lewis (1953) draws attention to the necessity of support for private enterprise and the simultaneous development and support of the state's economic functions. However, K. Clark (1953) and H. Liebenstein proved that the obstacle to capital accumulation and, therefore, economic development, especially in undeveloped countries, is very high natural population growth. In addition to physical capital, economists also paid attention to other development and growth factors, which caused a wave of reflections on optimal production technologies that began to be recommended to the undeveloped and developing countries (Piasecki, 2003 : 22-23).

It should be noted that the above concepts were developed on the basis of previous models of economic growth (M. Kalecki, R.F. Harrod, E. Domar and R.M. Solow). The dynamics of Keynesian growth models was based on the equal participation of workers (physical labour) in the resources of physical capital. However, R.M. Solow proved the essential role of technical progress in long-term growth and the convergence of economies, but in his model, the accumulation of physical capital per worker remained a key mechanism for reducing the difference in the development (convergence towards balanced growth) of an economy.

In the 1960s, the view gradually spread, that the accumulation of physical capital is an insufficient factor for economic development. Works of J.H. Boeke (1953), D.C. MacClelland (1962), E.F. Hagen (1962), T.W. Schultz (1962), and A. Lewis (1966) showed that the effectiveness of physical capital components depends on whether citizens have the necessary knowledge and skills, or in the modern sense — from human capital in the economy. Reasons related to the mutual complementarity of the components of physical and human capital are that the development of physical capital resources will always require the anticipatory improvement of quality of human capital, because it is particularly responsible for the acceleration of technological progress (Kondonassis et al., 2000 : 17-23).

In the expansion of human capital as a fundamental factor of growth, development and reduction of lag, a special role belongs to the founders of the human capital theory, G.S. Becker (1975), P. Romer (1986) and R.E. Lucas (1988), whose works formed the endogenous direction of such research.

According to endogenous growth models, it was found that human capital has a much stronger effect on the growth rate and its convergence in the medium and long term, than the physical capital resource (Caballe, Santos 1993; Galor, Moav 2004). Human capital influences the economy directly, i.e. the rate of economic growth (**level effect**), and indirectly through the accumulation of other growth factors, i.e. physical capital and technological progress (**economy of scale**)

(Rogers, 2003). In addition, they described the significant role of this factor in the: (a) determination of income inequalities (also equivalent during the completion of movement, and in the process of movement towards sustainable growth), (b) deepening of the financial sector and credit market (Barro, Sala-i-Martin 2004), (c) internationalization of the national economy and the inflow of direct foreign investment (Grossman, Helpman, 1991; Young, 1995), or (d) shaping of fiscal policy by establishing taxation, as well as the level and structure of public expenditure (Rebelo, 1991).

The human capital factor is also attributed a significant role in the structural and demographic changes of economies. Models with a separated human factor describe the mechanism according to which developing countries replace the quantity of children by their quality, i.e. the relevantly equipped higher level of human capital is achieved. This substitution effect may be connected to technological changes, the specialization of production or urbanization, which results in a decrease of operating costs (e.g. for transport) and the increased mobility of labour resources, consequently promoting a better interaction of supply and demand for labour and accelerating the diffusion of knowledge.

An achievement of economic theory in the 1980s and 1990s was securing convictions about the fundamental role of human capital in the formation of the long-term economic growth of countries and reducing the differences in their development. However, the experience of many countries did not confirm the optimistic conclusions that emerged to the same extent as from the theory of human capital and in a broader sense — from the main paradigms of economy, i.e. neoclassical, Keynesian, structural or, finally, the modernization theory. Many development programs based on the modernization theory, which are implemented in undeveloped and developing countries, for the most part, show only partial results. The world did not become more equal and richer in all its parts, but increasingly divided into the rich countries of the North and poor — of the South. The inefficiency of the development theory, which is based on the traditional paradigms of economics, arose at the turn of 20^{th} and 21^{st} centuries, based on its helplessness in solving the most pressing social and economic problems of many developing countries, i.e. growing property profitable inequalities, violence against backgrounds of ethnic and religious conflicts, long-term civil wars, financial crises and ubiquitous corruption (Woźniak, 2005; Radcliffe, 2004).

Differences between theoretical conclusions and the actual facts inclined economists to seek sources for the differentiation of economic

development dynamics in the institutional environment and thus, in the characteristics of social capital. The institutional theory of economic development is derived from the same conceptual bases of the nature of human behavior and social changes that characterize the institutional interpretations of the evolutionary history of modern industrialized countries of the world. Institutionalists interpret development «*more as a complex cultural process rather than a stable system of counterbalanced forces regulated by a self-correcting market mechanism*» (Street, 1987 : 1861-1887). The institutional theory of economic development, representing an advanced form of general institutional theory, sees the causes for the underdevelopment of undeveloped or developing countries in archaic social institutions that create obstacles in the use of available intangible resources, i.e. technical knowledge and technology as well as the training of employees, or existing human capital resource. Specific forms of interdependence that exist between public institutions and knowledge (technology and human capital) arise from traditionally established cultural conditionality, which depend on geographical location, cultural history and the available production resources of individual countries (Jameson, 2006 : 369-375).

According to this approach towards economic development, social capital was an essential factor in reducing the difference in development. Given its special role in the transition to a market economy, the broader interpretation of the role of social capital in the process of reducing differences in the development of a post-socialist economy will be given later in this chapter (paragraph 1.7).

It should be noted that the current dominance of institutional economics in the debate on the development and reduction of economic inequalities in the developing countries does not diminish the role of other growth factors, such as human capital. Many Polish and foreign authors emphasize the inseparability of issues related to human and social capital. These two types of capital are clearly reflected in the human individual. This is why interdependence, inseparability and the mutual supplement of both economic categories is constantly emphasized (Shu-Chi Lin, Yin-Mei Huang, 2005; Wallis, 2004; Bueno et al., 2004). This conclusion is also confirmed by the main thesis of institutional economics, that the '*human dimension of economic development should be the leading context of socio-economic changes in developing countries*' (Jameson, 2006 : 369-375). Therefore, social capital, which includes informal social institutions that are established culturally and have the relevant traditions, '*should be a part of the process of social and economic development*' (Jameson, 2006 : 369-375) and dominate in the structural and qualitative changes of economies, lying in the relevant use of physical capital, human capital and technology.

1.3.5. Overview of Policies Aimed at Reducing the Difference in the Development of Countries

In 1940s, the founders of the economy of development (M. Kalecki, O. Lange, W. Kantarovych) emphasized the need of planning, management and interference of the administrative state in the economy to overcome obstacles of underdevelopment and the reduction of lag in developing countries. Government intervention in the economy, caused by the use of the Keynesian intellectual canons of 1940-1960's that were mandatory in capitalist countries, was recommended equally to the European economies that survived military destruction and to the countries that obtained independence at the turn of the 1950s and 1960s, liberating themselves from colonial hegemony. In particular, as regards the latter group, special attention was paid to the significant shortcomings of local markets that made it impossible to reduce the development gap, relying only on the market mechanism or uncontrolled (unregulated) price mechanism. For the most part structuralists, including Gunnar Myrdal, Ragnar Nurske, Raul Prebisch, Paul Rosenstein-Rodan and others, characterized developing countries as a space of «structural inelasticity» and significant time delays in stimulating the increase of aggregate supply and demand. This is why the market mechanism was not developed sufficiently enough to generate large savings and manage investment benefits for the development of the infrastructure, processing industry or the modernization of traditional sectors of the economy. Since then the dominant point of view was that without strict government intervention in the economy, undeveloped and developing countries can become trapped in underdevelopment and/or «vicious circle of poverty» and the central budget became the main instrument of national economic planning.

It should be noted that the general skepticism of the capitalist world as regards central planning applied in the USSR did not reduce the confidence of Western theorists to the effectiveness of intervention in the field of industry, import, the development of agriculture, improved functioning of the public sector or quantitative and qualitative changes in the economies of the 1950s and 60s. For the countries, which became independent in 1959—1961, the centralized planning of economy that existed in the socialist countries of the Eastern bloc, was a kind of «*running a short distance to the present*». As a result of the implementation of a policy of forced savings, which reached 40 % of GDP, the forced collection of food from the peasants and the large-scale processing of natural raw materials, socialist countries developed according to the relevant degrees of economic growth. In the 50s and 60s, representatives of socialist countries expected that in the short-term per capita income of the population of the USSR would exceed the same

indicator in the United Kingdom or even the United States. In their turn, the countries of Eastern Europe had, as exemplified by Romania, such a beast as modern Asian tigers (Przeworski, 2003 : 42—47). This is why many economists, who joined the movement of the methodological school of dependence, tended even to the Marxist-Leninist ideology, attributing the so far unknown ability of the effective combination of resources that allows the termination of the vicious circle of underdevelopment to socialism (communism). Such propaganda of the success of socialist countries was cause for some concern, even among a group of economists and democrats in the West, who repeatedly acknowledged that democracy and free market are a luxury, which only the developed part of the world can afford [20]. However, the experience of the last two decades of the 20th century proved beyond all doubt, that even though the countries with an ideological dictatorship had economic success for a certain period of time, these modes certainly became the cause of the subsequent degradation and decline of these economies.

In addition to emphasis on performance of a strong and active state in overcoming internal obstacles to development (the development of industry, trade and pricing) and the activation of economic progress, it is often also recommended, particularly to developing countries, for them to be independent of the global economy. In the 1960s, highly developed countries advised to undeveloped and developing economies to open the way to international trade. However, for the most part, representatives of the school of dependence and economists of Latin America urged that such recommendations are not followed, because highly developed countries, when they were at lower stages of economic development i.e. similar to those of the modern undeveloped and developing countries, did not open their markets to agricultural production from the «Third World» countries. Therefore, these economists, concerned about trading conditions becoming even worse, advised developing countries to reduce their dependence on the global economy, using customs barriers and creating government monopolies in banking, transport, key industry sectors, as well as the import substitution strategy (Piasecki, Wolnicki, 2004).

As a result of failed economic policies in many developing countries (Bolivia, Mexico, Brazil), supporters of the economy of development became increasingly skeptical in their views on the ability of the state to

[20] Walter Galenson admitted in 1959 that the more democracy there is, the greater is the pressure on the transfer of resources from investment to consumption. Karl de Schweinitz also stated that if poor and undeveloped countries want to have development success, they must limit the democracy mechanism in political life. Finally, Samuel Huntington and Joan Nelson argued that the political participation of citizens should be limited, at least for a specific period, to support economic development (Przeworski, 2003 : 42-47).

solve economic problems. In addition, the actions and competence of local politicians and bureaucrats, which often represented the interests of only a narrow group, were evaluated negatively more and more often. In the 1980s, criticism of governments as regards support of economic development (Piasecki, Wolnicki, 2004; Piasecki, 2007) proved that: (a) in many poor countries, government measures had litte effect in solving problems connected with education and literacy, health care, provision of food and transport, as well as combating drug trafficking, which reduced public confidence in governments and local administrations, becoming increasingly corrupt; (b) elite and privileged groups are largely the recipients of foreign aid, not the poor or people who needed help.

Experience of the 1980s highlighted the weaknesses of the strategy, which relied on state intervention in the economy both in capitalist countries (the strategy of import substitution in Latin America) and countries with administratively controlled systems (Central Eastern Europe). Moreover, the economic success of Malaysia, Indonesia or Singapore confirmed the arguments of liberal lobbying in favor of the primacy of the market mechanism and global liberalization, deregulation of local goods and services markets as the most effective means of reducing the backlog of undeveloped and developing countries. As a result, in the 1990s, theory and economic practice were dominated by liberal and neoliberal concepts proposed within the framework of the Washington Consensus. This congress envisaged pursuing tough fiscal and monetary policy, deregulation and the liberalization of capital turnover and trade, restriction of state subsidies, moderate taxation, the liberalization of interest rates, keeping inflation low and, above all, the openness of national economies within the framework of the global economy and competition (Castels, 1986). These decisions were supposed to have led to the better optimization of the localization of production resources. A special role in the advancement of undeveloped and developing countries was also seen in global corporations and the inflow of direct foreign investment to less developed parts of the world (Wiarda, 1999).

The economic policy proposed by the Washington Consensus also and possibly most particularly pertained to developing countries and Central and Eastern Europe, where the implementation of systemic reforms began in the 1990s. They lay in the implementation of the golden standards of capitalism, i.e. rapid liberalization, privatization, deregulation, and setting the course of the economies towards international competition with a restrictive fiscal and monetary policy (Woźniak, 2002). Already in the first years of transformation it was found that this means of transition to a market economy led all these countries to regress, the depth and duration of which exceeded the expectations of many economists (Kołodko, 2000).

For example, in Ukraine, transformational regression continued until the end of the 1990s. We can assume that most of the countries of Central and Eastern Europe had no other alternative for systemic change. Post-socialist economies increased their debt to international financial institutions to a level that threatened their solvency, as a result of wrong planning decisions in the 1970s and 1980s. Instead, at the beginning of the transformation, international financial institutions (World Bank, International Monetary Fund), which had neoliberal views on economic changes in post-socialist countries, required the partial or full repayment of these countries' debts for the acceptance of the system reform scheme.

The neoliberalism that dominated in practice and theory of the 1990s brought at least partial success for most of the countries that transformed and developed and undeveloped countries. In most of these countries the immature local markets functioned, which did not meet the challenge global competition. However, the efforts of local authorities in designing macro regulation providing for the socio-economic conditions of functioning of these markets were too limited due to the significant liberal lobbying of the supporters of the IMF and World Bank stabilization program concept. This is why the school of dependence often expressed the reproach, particularly in scientific literature, that the Washington Consensus acted in the interests of only the richest economies of the world (Woźniak, 2005).

The weak points of economic strategies based on the Washington Consensus were particularly evident in the 1997—1998 financial crisis in Southeast Asia. It also affected countries that were closely connected with the global economy, i.e. Thailand, Singapore, Malaysia, and Indonesia. However, paradoxically, in contrast to the previous recommendations, IMF and WB representatives saw reasons for the crisis in these countries as the «*excessive openness of the global economy for these countries and the lack of possibilities to manage this openness*» (Piasecki and Wolnicki, 2004).

In addition to failures of economic policies based on neoliberalism, the progression according to the Washington Consensus, or its newest version, i.e. the Post-Washington Consensus, is lobbied intensively in a large group of developing countries. The representatives of international institutions such as the UN, recognizing «the right to development» for undeveloped and developing countries, de facto force the strategies of openness to globalization, which, as the experience of many countries proved, often bring the greatest profit to leaders of the world economy, i.e. highly developed countries, at the expense of the developing ones.

Given all cautions as regards the policies implemented in accordance with the neoliberal Washington or Post-Washington Consensus, it should be noted that in many countries, their recommendations yielded positive results. It applies mainly to those countries that when opening their markets

to global competition, took appropriate steps for the development of human resources, made investments in education and developed and embodied new technologies in life. The group of countries that over the past few decades have significantly reduced the lag in development, include Ireland and South Korea, which invested quite a large share of their income (GDP) in national human capital (Development planning in a market economy, 2001).

In European countries, specifically in the group of EU Member States, the above-mentioned economic policies are clearly different from those proposed by the paradigm of the modernization school. Member States, bound by relevant requirements, must achieve strategic objectives in accordance with the Lisbon strategy adopted in 2000, which was later revised and corrected. The only exception is the economic dimension, as the politicians of the Community also try to add social and environmental dimensions for the establishment of economic prosperity. The theoretical bases of a more holistic approach to development are connected not only with the key recommendations of neoclassical or liberal economics, but they are still less connected with the concepts of a social market economy, social and economic cohesion and sustainable development. Quite clearly outlined difference of the European model of development, including reducing differences in development, faces harsh criticism from representatives of the school of modernization. It is emphasized that the attempt to join economic efficiency with social justice requires large resources due to low productivity, slower economic growth or the weaker expansion of the so-called sectors of new economy, resulting from large bureaucratic and fiscal pressures. However, it should be noted that in the group of EU countries, it is possible to find both the example of countries that have not only been able to significantly reduce the difference in development, but also consistently maintain stable and high economic growth. It refers not only to the economy of Ireland, which is compared with the Asian tiger and often perceived as a kind of exception. Of special interest are primarily Scandinavian countries, where the implementation of the concept of a welfare state, so criticized and in some sense dethroned in the context of, for example, the German economy, did not prevent or hinder effective competition with strongly liberalized economies in terms of economic growth, development of new technologies, expansion in the so-called sectors of new economy. There are symptoms that indicate that some new EU Member States are able to use the EU *acquis communautaire*[21] and the concept of the Lisbon strategy for reducing differences in development. By the way, Poland now belongs to these countries.

[21] The EU *acquis communautaire,* which currently includes over 80,000 pages of typescript. It is mandatory for all members of the European Union. (*Note of editors*)

1.3.6. Conclusions Regarding Post-Socialist Countries

Having drawn attention to some theoretical dilemmas connected with economic convergence, we can make several outlines.

Firstly, reflections on the economic system offer the relevant research prospect of economic convergence. The definition of the notion of «convergence» and its proposed classification in terms of consistency allows a better understanding of the nature of this process. Convergence between economies is the result of interdependence between changes in real the and regulatory spheres of comparable countries. The selective description of the convergence phenomenon, i.e. in the context of economic growth and/or development, markets and market structures or financial systems and subsystems of the economy, seems to be an unnecessary simplification. Instead, the distinction of the convergence of real and economic regulation spheres allows the better identification of key spaces of the economy, which should be influenced by an economic policy directed towards advancement.

Secondly, a brief overview of economic theory makes it impossible to give a definitive answer as regards the factors of economic growth and development, which accelerate the process of reducing differences in development in undeveloped and developing countries. For the evolution of economic theory that existed prior to that time, the search for ever-new factors and conditionality of lag reduction are traditional. By the mid-1950s, physical capital was on the one hand, perceived as a key factor, and on the other, as the main obstacle to economic growth and development. In the following decades the representatives of different economic schools substantiated the essential role of human capital, social capital or ultimately the broader application of institutional conditions for development. However, shifting emphasis from the complexity of physical factors to those connected with a human individual (human capital) and the interdependence between micro economic subjects (institutions, social capital), does not diminish the leading role of the former. The activation of benefits connected to the individual knowledge, skills and competence of microeconomic subjects (human capital, workers, enterprises), and with the confidence or willingness to cooperate (social capital) will not be available separately from physical capital (machinery, installations, infrastructure). In addition, the elaboration of theoretical scenarios of convergence for a «catching-up» economy should not rely only on new, non-material factors of economic growth and development, i.e. human capital, social capital or functioning institutions. The resources of physical capital are also a significant component of these structures.

The third conclusion concerns recommendations regarding the economic policy directed at reducing differences in development. As

noted, changes in the real economy (production process, combination of production factors, the economic efficiency of microeconomic entities) occur within the framework of formed, sanctioned and functioning market institutions, which determine allocation, exchange, distribution and coordination processes. Moreover, if we consider the idea that reducing the gap in development is not a matter of accident, but the results of applicable economic policies to be reasonable, it raises the question of key spheres, which should be influenced by such policies. This can only be answered after considering some key provisions. Firstly, in setting policy framework it is expedient to avoid universalism, which, as shown by criticism of the school of modernization and the experience of many undeveloped and developing countries, is a harmful simplification. Therefore, it should be considered that: (a) between the countries being compared, no significant differences appear at the level of economic development, measured, for example, by GDP per capita, i.e. these countries are developed and/or such that are developing; (b) according to W.W. Rostow, these countries have sufficient (tangible) coexist resources to begin gradual development; (c) the economies in the same or similar integration systems, for example, the EU, WTO, OECD; (g) these countries evolved in similar cultural circles (Christianity, Islam, tribal communities), thus having a common understanding of the philosophy of money, wealth and enrichment, the same approach to social structures and their role in the development of these structures (individualism *versus* collectivism).

Therefore, taking the thesis set out in the presented monograph, we can assume that the first approximation of the proposed policies of convergence for the «catching-up» countries should be connected with the evaluations of economic regulation sphere.

Subject to the above provisions it can be expected that comparable countries, participating in global economic relations, have equal access to the resources of physical and financial capital and technology. Therefore, policy aimed at reducing differences in the development of «catching-up» countries should influence changes in the field of the regulation of the economy. It should be emphasized that changes in the sphere of the regulation of this economy should be focused on how to be similar to a more developed country. It rather concerns the formation of such coordination mechanisms (market institutions and informal institutions) that would give the opportunity to receive greater benefit from the allocation and division mechanism (real sector of the economy). Only in this situation, can we hope that the economic system of a «catching-up» country can achieve faster growth in the real economy and thereby reduce the difference in development as compared to a more developed country.

1.4. Legal Aspects of Convergence within the Acquis communautaire and Lisbon Strategy

1.4.1. Origin and instruments of acquis communautaire

Unlike federal states, which are formed on the basis of a Constitution, the Community and the EU were founded on the basis of international treaties. EU objectives are implemented by the Communities, or — if they do not fall within the competence of the Communities — by the Member States. This is because the EU Treaty does not vest the EU with legal capacity[22]. Only Article 49 of the EU Treaty envisages a procedure for gaining membership in the EU rather than membership in the Communities. This means that new states seek membership not only in economic organizations, but also in joint cooperation structures that operate in the field of foreign policy and security (pillar II of the EU) and police and judicial cooperation in criminal matters (pillar III). The Maastricht Treaty (1992) intensified the process of European integration, but instead, the result of new integration activity was as follows:

1. The Amsterdam Treaty, adopted on October 2, 1997 for an indefinite period, replaced the Treaty on the European Community (1992), treaties establishing the European Communities and some related legal acts.

2. The Treaty of Nice, dated February 26, 2001 made necessary clarifications to the founding treaties of the EU and the European Communities, thus creating a real chances of their effective functioning in EU enlargement from 15 to 27 countries which took place on the accession of former post-socialist countries of Central and Eastern Europe and Cyprus in 2004 and Bulgaria and Romania — in 2007.

3. The Constitutional Treaty of October 29, 2005 which following its rejection during the referendum in France and the Netherlands, was renamed the Reform Treaty. This agreement can take effect as early as 2014.

A new EU Member State must accept all the legal property of the integration group. Hence is the need emerges to harmonize national legislation with the EU legislation and, thus, the pre-entry period of this complex process will take years.

Poland took the first steps towards joining the EU already on November 26, 1991, when it signed the European Convention on Human

[22] The states-parties to the Treaties decided on the expediency of the establishment of the three Communities: EUBiS in Paris on April 18, 1951, the EEC and Euratom on March 25, 1957 in Rome.

Rights and Fundamental Freedoms (1950) and the European Agreement on the Association of Poland with European Communities and their Member States, which came into force in 1994. For two five-year periods, Poland prepared comprehensively to gain full membership, which became a reality on May 1, 2004.

Membership in the EU primarily means economic integration, associated with the duty to reform the legal system, resulting in the possible approval of relevant Community legislation. In the case of post-socialist countries, to avoid many negative effects of the introduction of *acquise communautaire* in the real economy, a number of measures must first be taken to increase competitiveness, and sometimes also the strengthening of control over subsidizing enterprises.

The unified system of legal relations among EU Member States is designed to ensure the effective functioning of the single European market and reach the Community's common goals. Given this, a prerequisite is the introduction of a single Community law, which is binding on all Member States. It is also important to harmonize individual national legal systems. This process takes place through various channels and may be continuous or gradual in nature. In order to smooth its course, it can be done via mutual recognition, coordination, harmonization and substitution.

The basic method for the unification of EU legislation, as noted above, is its harmonization. Under the provisions of the Treaty of Rome, the principle of subsidiarity and proportionality is applied during harmonization activities. The subsidiary it principle limits the intervention of the Community in the implementation process of integration tasks, because it is allowed only in such cases and the extent, to which the objectives of actions cannot be achieved effectively through national regulation. Due to the subsidiarity principle, each Member State shall have the necessary sovereignty, and harmonization measures that are limited to what is necessary for the effective implementation of tasks. The proportionality principle means the use of appropriate measures necessary and appropriate and at the same time the least burdensome to achieve these goals. Under the Treaty of Rome, harmonization means the process of regulatory convergence of the legal systems of member states to ensure the proper functioning of the single European market. The difference in the legislation of the EU Member States is liquidated only in those administrative provisions, which refer to integration processes. It uses legislative techniques officially accepted in the EU. The product of the Community's legislative activity are binding and not binding legislative acts. The first group consists of directives, regulations and decisions. The second group comprises recommendations and conclusions.

The main regulation used during the harmonization of legislation is directive. According to the Single European Act, the Commission shall only use directives if the actions of the Community cause a change in the legislation in most of the Member States. Directives are aimed solely at the Member States and require the bringing of the national legislation in conformity with them within a specific period. They are exclusively directed towards the state. A directive is mandatory for the purposes and effects to be achieved, but does not directly establish any rights and obligations to individuals or legal entities. Because of this, each Member State shall have the right to choose the implementation means, forms and methods of implementation of tasks set by the directive, and choose the regulation by which the provisions of this document will be implemented in national legislation. However, a directive obliges national legislators not to approve laws that contradict its contents. Member State shall apply such forms and methods that ensure the practical efficiency of directives. This means that a Member State cannot invoke an argument, whereby Community law is contrary to the provisions of the Constitution.

In Community law, mandatory and optional directives are applicable. For example, the sphere of indirect taxes is regulated by mandatory directives, and direct taxes are subject to optional regulations.

Another legal at — regulation — is completely binding for the Community, Member State national courts, institutions and individuals. They do not require prior transformation or incorporation into the legal system of a Member State and are effective with the same legal force as the country's domestic law. The addressees of regulations are entitled to refer to their provisions before both national authorities and courts. In case of legal conflict between national law and the provisions of a regulation, the principle of the priority of Community law, according to which in some cases it is impossible for a Member State to unilaterally reject a given regulation, is applicable.

Decisions are of a clearly defined regulatory nature. They cause direct effects only when it is clear that the set duties and principles of their implementation will have a clear and unconditional nature. Since decisions are aimed at a specific recipient, as a rule, they cannot be used in the process of the harmonization of law. Instead, recommendations and conclusions, despite their optionality, can promote harmonization, because they contain the viewpoint of a Community body on the mode of action, for example, in tax matters.

EU *acquis communautaire (a.c.)* in its substance, includes the legislation and policy established by knowledge and life experience concerning the affairs of the Communities in economy, social policy, health care, consumer protection, environmental protection and others (pillar I) and cases that go beyond the Community and are connected

with common foreign policy and security (pillar II) and with cooperation in justice and internal affairs (pillar III) (Brodecki S., Derezińska B., 1999). In the dynamic meaning *a.c.* also formulates the end economic, political and social order, the total content of which is provided in the EU Reform Treaty. The three EU pillars are supported by OECD and NATO. The idea of *a.c.* is the effect of the convergence of legal cultures and national law (British, Roman, Germanic, Nordic and Slavic), continental law and economic and political doctrines connected with continental liberalism. The EU *a.c.* is the result and manifestation of the internationalization of law on a global scale as well as the role of the European Court of Justice and the political control exercised by the European Parliament.

All *a.c.* sources are only examples that help the states willing to become EU members and associate members to implement the convergence of domestic legislation with European standards. The EU *a.c.* promotes the integration of national legislation with EU legislation. The convergence of national legislation with the EU *a.c.* happens in accordance with the principles of order as well as the system and general principles of the EU legislation. The principles of law in the axiological perspective are deemed supreme and play a special role in the process of the application and interpretation of law. The Court of the European Communities, which ensures the compliance and interpretation of law, plays a special role in formulating the principles of Community law. It follows the principles of Community law resulting from founding treaties, the legal systems of Member States and international law.

1.4.2. Organization Principles

Of the organization principles, the following should be singled out: primacy of Community law, direct effect, subsidiarity and proportionality.

The principle of primacy of Community law was first formalized on October 24, 2004 in the Treaty establishing the Constitution for Europe (Articles 1-6). This principle is often called the principle of supremacy of Community law over national law. In fact, contractual provisions enjoy supremacy only in the scope of Community law. Only in this sense is there a duty to ensure the compliance of national regulations with Community law. The primacy of Community law in domestic legal order operates on the basis of the fact of its approval, despite national legislation. In case of the conflict of Community rules with national law the latter, despite its rank, should be avoided and Community law should be applied. Member States applying the principle of primacy of Community law retain freedom in the formation of state bodies, defining

their forms, competencies and activity principles. Nevertheless, EU members can only carry out those activities that comply with the Community's legislation. The uniform application of EU law does not permit the application of provisions of national law, except those necessary for the implementation of regulations.

The implementation of the principle of primacy of Community law is connected with:

— the cancellation or revision by the relevant bodies of Member States of the provisions of national law, which do not comply with Community law;

— the obligation to create internal legislation if required by Community law to ensure its effectiveness;

— the ban on the creation of legislation contradicting the Community law;

— the obligation to apply Community law;

— the obligation to recognize the interpretation of Community law by the European Court of Justice and interpret domestic law in accordance with Community law;

— national authorities, including Constitutional courts, being prohibited from analyzing the legitimacy of Community law.

Addressees of the rules of Community law are not only Member States, but also their citizens and legal entities. This means that these rules must be suitable for their direct application. Therefore, Community legislation provides for the principle of direct application and direct effect. From this principle it follows that this Community rule grants direct rights to subjects that can protect those rights in a national court. The principle of direct effect gives the citizens and institutions of the Community an opportunity to invoke the rules of Community law and apply these rules without additional national regulations. Under the principle of direct effect, on the basis of Community law, subjects can commit legal acts, refer to its provisions and, based thereon, protect their rights in courts. However, direct application means that the applicable provisions of Community law are applied automatically by national authorities, regardless of national law.

A rule is deemed directly effective if certain rights for an individual are established, it is absolute, and its meaning is clear and sufficiently exact. According to the interpretation of the European Court of Justice, a rule is sufficiently exact and understandable if based on it, it is possible to determine the range of subjects, which were granted some right, to set content of rights held by the subjects, to identify the object or subjects responsible for the execution of certain obligations. Certainty of rule means that the provision of a right should not depend on an assessment of the authority of the Community or Member State. The rule of Community law only becomes directly effective after coming into force.

To maximize the effectiveness of European legislation the principle of indirect effect is additionally applied. According to this principle, national

courts and authorities have an obligation to interpret domestic law in the light of Community law. This principle applies to all sources of Community law, as well as those directly effective, and even those that refer to optional recommendations.

The main task of the EU is to organize relations between Member States and their peoples (Article 1 of the Treaty on European Union (TEU)), in a manner demonstating consistency and solidarity. The implementation of this task is connected with the need to cooperate and interact during the implementation of EU objectives. The implementation of the solidarity principle becomes possible as a result of the adoption by EU Member States of obligations to:

— implement any measures to complete the tasks defined by the Treaty establishing the European Community;

— assist the EU in performing the tasks;

— abstain from any activity that could harm EU objectives.

This principle implies that measures to achieve EU objectives shall be carried out conscientiously, diligently and in a way that the goal can be achieved as soon as possible. Based on the solidarity principle, Member States shall cooperate with EU institutions in cases where they have problems with the implementation of Community law. Also, institutions should provide support to Member States in matters of attaining EU objectives.

In the context of international solidarity, two concepts were formed in the EU, focusing on the solidarity or sovereignty of state power transfer to supranational organizations. In the debate on the Constitutional Treaty, the concept for the transfer of state power to international organizations that followed from supranational essence and spirit of cosmopolitanism, won. The failure of the Constitutional Treaty in the French and Dutch referendums seems to return the balance between sovereignty and solidarity. However, the direction and form of harmonization between solidarity and sovereignty are still determined by the concept of the protection of human rights. The EU has already overcome the problems of the first and second generation of rights, i.e. the dispute about equality and freedom, and currently is at the stage of implementing the idea of solidarity (III generation of rights), which aims to preserve peace and sustainable development. Therefore, the formation of legal order largely focuses on citizens and building of developed regions in Europe by means of the common interests of political parties in individual countries. The combination of sovereignty and solidarity should result in a new supranational organization — a product that arises from the voluntary commitment of states to reduce their powers to preserve peace and sustainable development.

A special feature of the EU system is the combination of spontaneous coordination with the coordination that takes place on the Community

level, the essence of which is manifested in the implementation of the subsidiarity principle. According to Article 5 of the Treaty Establishing the European Community (TEEC), «in areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community». The principle of subsidiarity is applied not only in the sphere of social benefits (education, health, research and technological development, environment), but also as regards consumer protection, cooperation directed towards development or even industry.

Subsidiarity is the reaction to a failure of economic and political markets. It aims to implement a state mission to support civic initiatives. In the case of the EU, a state mission in this area is implemented by the decentralization of power as follows: State — Community — region.

Thus, the substance of subsidiarity implies that power shall not only interfere with subjects or social groups dealing with their own problems, but shall primarily promote and encourage activity and, in extreme cases, support and complement the activities of entities that are not self-sufficient. The authorities should only intervene when the situation goes beyond the capabilities of lower-level authorities and will be more effective.

This approach to the subsidiarity of power does not breach the concept of a liberal state, but rather gives it specificity, resulting from the continental liberalism. Its principles emphasize the need to limit the extreme individualism that is characteristic of Anglo-Saxon capitalism. Thus, using the subsidiarity principle, it is proposed that economic efficiency is combined with fair distribution rules and a restriction of disbalance in regional development. In practice, this principle is implemented through structural and cohesion funds. Regional policy plays a special role in applying the subsidiarity principle, under which, national cohesion strategies are formulated on the basis of the Lisbon strategy.

The principle of subsidiarity also conditions the proportionality of measures to achieve a particular purpose. It means that measures used for the implementation of Community law must be appropriate and necessary, and therefore cannot go beyond what is necessary to achieve it. If there is an alternative, it is necessary to choose the one to be the least problematic. The inconvenience associated with its use should also be taken into account. Regarding the imposition of penalties, the proportionality principle requires different types of sanctions pursuant to the nature of the violated obligation.

Differences of opinion concerning the dynamics of integration processes, and resulting conflicting interests among EU Member States,

led to the emergence of the «Multi-speed Europe» concept. At present a monetary Community uniting the countries with higher integration dynamics that are ready to join the single market, adopt a common currency and implement a common monetary policy is considered as its practical manifestation. The dispute about the form of the constitutional treaty also gave rise to other concepts, such as the «Europe of Motherlands» or «Europe of Regions», cosmopolitan superpower or an integration of solidary states, which can simultaneously limit their sovereignty for the sake of stable, sustainable development and peace.

Given the difficulty of reaching a consensus in such matters, there was a need to conduct a branching out in the concept of the unity and uniformity of Community law, in accordance with Art. 43 of the TEU. Along with the concept of unity and homogeneity, it is also possible to implement the principle of enhanced cooperation as regards the group of Member States that are ready for deeper integration, provided that the enhanced cooperation:

a) supports achievement of EU and Community objectives, protects and serves their interests and promotes their integration processes;

b) respects the Treaties and the uniform institutional structure of the EU;

c) respects *acquis communautaire* and the measures adopted pursuant to the provisions of the above Treaties;

d) remains within the competence of the Community or the Community and does not apply to areas that are within the exclusive competence of the Community;

e) does not harm the domestic market, as defined in Article 14 of the Treaty establishing the European Community, or economic and social cohesion, established in accordance with Chapter XVII of the above Treaty;

f) does not create barriers or discrimination in trade between Member States and does not distort their competition;

g) involves at least eight Member States;

h) respects the competences, rights and obligations of the Member States not taking part in it;

i) does not violate the provisions of the Protocol on the Schengen integration domain to the EU structure;

j) is open to all Member States, in accordance with Art. 43 b of the TEU.

1.4.3. Structural socio-economic principles

A strong *a.c.* core is comprised of a set of rules in the field of commercial law. It specifically concerns the free movement of goods, individuals, capital and services. These four fundamental freedoms are derived from the axiology of economic liberalism. In continental Europe it is slightly different from the Anglo-Saxon economic liberalism, which became the doctrinal basis of the

principles of global capitalism (Albert M., 1994). The European version of liberalism emphasizes a competitive environment, thus approaching ordoliberalism and emphasizing the role of the law of other institutions in the formation of efficient markets and overcoming their actual shortcomings.

Another feature of the EU economic system is a combination of autonomous market coordination within the competitive system with central strategic coordination, which is realized at the Community, state and regional levels, directed towards sustainable development as well as social and economic cohesion. In this sense, the commercial law of the EU approaches the model of a social market economy. The harmonization of economic efficiency and the principles of equitable distribution in the EU goes beyond the concept of a human individual, whose function is to maximize personal gain in market categories. Unlike Anglo-Saxon liberalism, in which economic criteria are higher than social ones, a man in the system of EU economic law is the subject of an economic process that applies to both economic and social criteria during decision-making. According to such axiology, Article 2 of TEEC identifies the following key objectives: harmonious, balanced and stable economic growth, high employment and social protection, economic and social cohesion, inflation-free economic growth, high level of competitiveness and convergence of economic performance, high level of environmental protection, increase of the level and quality of life, equal rights for men and women, solidarity between Member States. For the implementation of these tasks, it is necessary to create a unified and harmonious European and national economic legislation.

The fundamental freedom connected with the functioning of a common market, is the freedom of free movement of goods[23]. It was ensured by establishing a customs Community (Article 23 of TEEC), which covers all goods trading. Within its scope it is prohibited from applying export and import duties and any other charges having an equivalent effect between Member States and a common customs tariff is applied in relations with third countries, which is declared in the form of regulations.

To ensure the full freedom of movement of goods, Article 90 of TEEC introduces a ban on discriminatory and protectionist taxation and Article 25 — a ban on the introduction of fiscal customs duties. According to the European Court decision, the principle of the mutual recognition of standards is also effective, whereby a product, which was manufactured in one Member State, is allowed in the trade turnover on the territory of other Member States.

In exceptional cases, the free one-way movement of goods may be subject to restrictions. It refers to cases substantiated by the principles of

[23] A goods item is any product that has its own value, expressed in monetary terms and may be the subject of trade transactions, except for official payment means (coins and banknotes), to which the provisions on free movement of capital apply.

morality, public order, public safety, protection of national cultural heritage, artistic, historic or archaeological values and the protection of industrial and commercial property (Article 30 of TEEC).

The EU governs the free movement of services somewhat differently[24]. The general provisions of the Community on freedom of movement of services exclude those that are directly related to the exercise of state power. In addition, a person who provides services must confirm the qualification necessary for these types of services, recognized by the state of origin and practice of the given profession. However, the free movement of services is impeded by about 90 different barriers. It follows from the fact that currently, the services market provides more than 90 % of newly created jobs and generates over 70 % of GDP, and thus becomes a powerful instrument to limit unemployment. «Old» EU states, fearing unfair competition from the providers of services in new EU Member States, apply transitional periods and thus restrict the free movement of services.

According to the Bolkenstein Directive, which was considerably altered in 2006, new rules for the provision of services were adopted. They retained the general principle of access to the services market, based on the laws in force in the country of origin of a service provider and, simultaneously, provided for the introduction of some exceptions and permanent control of the state, in which these services were provided. During the imposition of exceptional restrictions, the criteria of expediency, proportionality and necessity are taken into consideration.

Regular amendments to this directive, which were introduced in 2007, involved a departure from «the principle of the country of origin» and established an approach on the free movement of services, which are provided «in general economic interests». The updated directive excludes public services from the principle of freedom. Art. 53 of TEEC envisaged the possibility of a broader liberalization of services than required by the directives, but only if it is possible given the general economic situation and the situation in the relevant sectors of economy.

Barriers to the freedom of movement of services, existing as a result of many exceptions, do not contribute to progress in economic convergence as they restrict free competition, the use of advanced technologies, the creation of new business entities, opportunities to reduce unemployment in the new EU countries and do not counteract the «brain-drain» phenomenon to richer countries.

[24] According to Art. 50 of the TEEC, «services» in terms of this Treaty are services normally provided for remuneration, insofar as they are not subject to the provisions on the free movement of people, goods and capital.

1.4.4. Freedom of Movement of Capital

Art. 56 of TEEC prohibits any restrictions on the movement of capital and payments between Member States and between Member States and third countries. Capital transfer is connected with financial transactions aimed at the investment or deposit of funds. Instead, payment is the transfer of currency values through sale and purchase transactions. The prohibition of restrictions on the movement of capital also refers to any other «related transactions», such as those associated with the establishment of mortgages, bank loans for investment purposes, as well as sales of real estate and stocks.

Exceptions from the general principle of the free movement of capital cannot comprise its concealed limitation. In order to prevent financial crime a duty can be imposed to declare the amount of money, which is brought to third countries. Also, if there are «exceptional circumstances» which, for example, may be a hindrance to the functioning of the economic and customs Community or there are important political circumstances, it is possible to use protective measures as regards third countries, but for no longer than six months. These restrictions can only be imposed by the Council by a qualified majority of votes and the previous submission of the Commission and after consulting the ECB. The Member State, which has problems with its balance of payments or struggles with the financial crisis, may also exercise the right to restrict the freedom of movement of capital and payments (Art. 119 and Art. 120 of TEEC).

1.4.5. Freedom of Movement of Individuals

Art. 39 of TEEC prohibits different treatment of its citizens and foreign nationals in access to labour market, conditions of employment and training and access to all social benefits. This protection also refers to a potential foreign worker. Just as in the case of other European freedoms, the freedom of movement for workers also has some limitations, particularly with regard to public order, public safety, health, as well as public service.

Freedom of movement of persons promotes European integration and convergence by providing facilities for the study of languages, customs, culture and patterns of activity. Unfortunately, in practice, if there are significant differences in the amount of wages, as observed in post-socialist countries, the economy of a poorer country is threatened by the temporary dominance of losses over the benefits of freedom of movement of persons. This is particularly so in the case of the «brain-drain»

phenomenon, i.e. the excessive outflow of a skilled labour force and the emergence of problems in various segments of the labour market, related to the lack of some professions and pressure towards rapid wage increases that, in turn, causes inflation trends and problems in balancing the state budget. Freedom of movement for workers is also accompanied by negative phenomena, such as unfair mediation and labour camps that do not comply with the European standards concerning the conditions of employment.

To counteract abuse in connection with the free movement of people, the government of the state accepting immigrants, has the right to establish the necessary conditions and restrictions, provided that they meet the standards of EU law.

Art. 39 of the TEEC lists the rights of a foreign worker, particularly to: job search, employment, non-discrimination based on sex and nationality, right to education, access to social benefits, residence on the territory of the employer state after the termination of work and professional activity, receipt of a five-year residence certificate, reunion of the husband/wife or partner with a migratory worker, with children under 21 or those who are dependent on parents, immediate family members of the worker and his wife/husband. All these individuals are granted social guarantees and rights to education in the same scope as granted to the nationals of the state accepting immigrants.

Some «old» Member States introduced transition periods regarding access to their labour markets by citizens of countries that joined the EU in 2004. After the completion of a five-year period, only states that proved the existence of serious problems in their labour market were able to extend it for another two years.

To ensure the free movement of workers, EU Member States had to harmonize requirements in the field of professional qualifications and diplomas. There are general and sectoral criteria in this field. If the latter are based on the tacit recognition of qualifications acquired, the general system of criteria applies to the professions that do not fall within the sectoral criteria. This system covers the professions for which secondary and higher education are required. Each Member State shall perform the specification of professions regulated by EU directives, and clearly define the characteristics of the qualification requirements applicable on its territory. Meeting qualification requirements is the basis for obtaining a work permit according to profession. Foreigners, who do not have this right, can prove their skills in an exam organized by the authorities of the receiving state in its official language. This examination is limited to the topic of a candidate's diploma. It is also possible to implement an adaptive period under the supervision of a qualified representative of the profession selected in the accepting country.

The freedom of movement of persons is also connected with the coordination of social protection systems. It covers the following services: medical and maternity, connected to disability and old age, the breadwinner's death, accident during working hours, occupational disease, as well as payment for funeral, unemployment and family. Due to the fact that in Europe there are different systems of social security, their coordination is based on the principles of respect for existing differences and the implementation of such solutions that can ensure the protection of the migratory population in the EU. The persons, who were or are covered by social protection in the country of origin (workers, pensioners, self-employed persons), shall be subject to coordination. Students are entitled to medical care in accordance with the principles applicable in the accepting country. The general social welfare principle means equal treatment of its citizens and the nationals of other Member States, i.e. the application of identical principles concerning rights and obligations in the field of social protection. In addition, they apply the principle of adding periods of employment or residence, which determine the level and scope of social guarantees. According to this principle, the rights obtained in the state, making the additions, are recognized. These benefits are appropriate regardless of residence, i.e. they cannot be reduced, deprived of or limited, taking into account the place of residence. Only unemployment benefit is paid to those who are outside the state, which granted such aid.

Citizens, who temporarily stay in another Member State, shall enjoy only the right to minimum health services, the calculation of which is conducted later.

Social aid, an additional pension system and benefits for war victims are outside the system of coordination. The persons who, seeking a permanent residence, move from the territory of one Member State to another and are not potential employees or an employee's family members, have maintenance allowance, a valid medical insurance policy, clearly identified in the receiving state (Art. 18 of TEEC).

Freedom of entrepreneurial activity is one of the forms of ensuring the effectiveness of the freedom of movement of individuals and legal entities other than non-profit organizations and enterprises not operating on the basis of the legislation of one of the EU states (Art. 43-49 of TEEC). The restriction of freedom of entrepreneurial activity to nationals of Member States is prohibited. A subject that enjoys the freedom of entrepreneurial activity is entitled to use any benefits and opportunities associated with business activities without discrimination and in accordance with the principle of equality. The general principle of freedom of entrepreneurial activity also provides for some exceptions

(Art. 45 of TEEC), which is related to the implementation of the government's tasks, because the person exercising them is granted special guarantees and privileges connected with doing public service and the application of state coercion against citizens.

1.4.6. Community Law in the Area of Competition

The following are distinguished within the framework of competition law: unfair competition, antitrust and subsidies law. The main objective of competition law is to provide irrevocable competition on the domestic market and overcome its restrictions or obstacles (Arts 2, 3 and 81 of TEEC). EU competition law applies to enterprises that have a tangible, visible and quite likely impact on trade between Member States.

Should there be a conflict between European and national competition laws the general principle of the priority of Community law applies. Under its provisions, where Community law applies or its legitimacy is recognized, Member States alone cannot prohibit enterprises from performing approved arrangements and practices, and business associations — from making decisions. With regard to abuse by enterprises of their dominant position, Member States can introduce restrictions that are more restrictive than provided for in EU legislation.

The issues of competition protection can be regulated by: European Commission, one public body for competition protection, which is supported by other state bodies, or some state bodies acting concurrently. State bodies cannot make a decision contrary to the decision of the Commission. The Commission shall recognize the independence of national courts, the decisions of which cannot contradict the decision of the Commission. Restrictions for breach of competition law are set according to the principle of proportionality. Functional and structural measures are used among them. Measures of a functional nature mean the obligation to take a specific measure or terminate it (e.g. the restoration of supplies, granting of a license, establishing price at a certain level). Structural measures (e.g. division of enterprise) apply only in cases where there are no effective functional measures.

The Commission has the right to impose monetary penalties for the violation of its decision or default of obligations that it has deemed to be mandatory. Enterprises and their associations themselves evaluate whether their measures are consistent with the decisions of the Commission in the case of an activity that is contrary to Community competition rules (Art. 81 and 82 of TEU).

The Commission can also apply regular fines not exceeding 5 % of average daily turnover to enterprises and their associations. The statute of

limitations on the right of the Commission to impose monetary penalties or regular fines expires three to five years from the date of breach of Community competition law.

To ensure effective competition, the TEEC introduces the prohibition of some agreements between enterprises (Art. 81) and the prohibition of the abuse of a dominant position (Art. 82). The prohibition of agreements particularly applies to: direct and indirect pricing for purchase or sale, or any other trading conditions, limitation or control of production, technical development or investment, the allocation of markets or sources of supply, the application of unequal conditions to equivalent legal arrangements with other trading parties, dependence of entering into agreements for undertaking additional obligations of other parties, which are not in essence connected with the subjects of such agreements.

The prohibition does not apply to internal agreements of smaller value, in which the share of the relevant market within the next two years does not exceed 2 %. As regards other agreements of smaller value, the share of which in the relevant markets does not exceed 5 % (in case of parallel trade networks), 10 % (in case of agreements that are difficult to classify as horizontal or vertical) and 15 % (in case of transactions between entities that are not competitors), it is believed that they cannot restrict competition significantly.

The operations of enterprises, which have a dominant position and even enterprises that are pure monopolies, is not prohibited. A dominant enterprise cannot be prohibited from protecting its own interests, but on condition that its activities are proportionate to the threats and not in violation of the principles of fair competition. On the other hand, the abuse of a dominant position is prohibited.

EU law also provides for the regulation of the permissible level of concentration within the Community. Member States can take appropriate measures to protect legitimate interests, other than those listed in Regulation 139/2004. These include, *inter alia*, public security, plurality of the media, and the principle of caution. The Commission punishes the violation of permissible concentration levels set forth by the Community law with a monetary penalty of 10 % of total annual turnover.

EU Member States shall not provide state targeted assistance, but this does not mean that the states must apply the same tax or social preconditions for economic activity. Art. 87 of TEEC determines the aid that is permitted by and consistent with the Community law. The first group includes the following aid:

— of a social nature, granted to individual consumers without discrimination with regard to the origin of the goods;

— used for overcoming the consequences of emergencies;

— relating to the compensation of negative economic consequences in the regions of East Germany that have been united with West Germany.

The following types of state aid can be considered compatible with the common market:

— that which contributes to the economic development of regions with very low living standards;

— that directed towards projects of importance for Community purposes, or to overcome negative developments in the economy;

— that supporting culture and cultural heritage;

— other types of aid established by decision of the Council upon the submission of the Commission.

1.4.7. The Lisbon Strategy as a Key Factor of Economic and Social Convergence

The *signum specificum* of the EU institutional system is its desire to achieve social and economic cohesion, which is considered an integral part, a fundamental task and rationale of strategic coordination and the reduction of a development lag.

As for regulation mechanisms in the economy, all issues of social and economic cohesion are actually connected with the discussion on the effectiveness, deficiencies and advantages of the market mechanisms of social and economic development over those governed by the state, and the use of their combinations in space, i.e. their operation in a specific local environment and assessment based on indicators characterizing the development distance of countries and regions from the sample model.

Alternative examples of socio-economic development model proposed in the economy are as follows: development through globalization on the basis of the recommendations of the so-called Washington consensus derived from Anglo-Saxon liberalism and sustainable balanced growth. In the European Community, they rely on the latest model, using a complex theoretical basis that is largely derived from the theory of welfare, evolutionary and institutional economics and ordoliberalizm. A model of development was formed as a result of the comparison of these examples, which was laid out in the Lisbon Strategy. Its supporters believe that the spontaneous development of markets and Washington Consensus policies are not sufficient for its implementation. A reduction in the development distance and the simultaneous harmonization of economic efficiency and fairness require central strategic coordination. This implies the need for government involvement by means of development plans initiated by EU bodies, which set model indices for social and economic cohesion. Since 2000, these plans are developed on the basis of the Lisbon Strategy.

Although not sufficient, but nevertheless a necessary prerequisite for the implementation of the above plans is the availability of markets that are free to develop. In this sense the development mechanisms of the EU do not contradict the Washington Consensus. However, in this case it is necessary to involve the state more actively as regards institutional provision and the improvement of the functioning of markets to ensure a favorable environment for sustainable development and the harmonization of economic efficiency with the acceptable social principles of justice.

The necessity to prepare for active membership in the EU and the debate on the future form of the Community's system gives rise to discussions on the adjustment of social and economic policies to the EU standards. The main determinants of this policy's standards are the Maastricht and Lisbon Strategy (LS) criteria. The former determines the macroeconomic conditions of economic policy, which should result in stable, long-term economic growth. On the other hand, the Lisbon Strategy is a set of priorities for the development of the economy of knowledge and such social policy indicators that in the process of the reduction of the distance in development should ensure social and economic cohesion.

Thus, the question arises whether this model of socio-economic policy — though reasonable and justified on the basis of economic theory — corresponds to the stage of development of Poland and Ukraine — countries sharing a common post-socialist legacy and divided by a difference in institutional provision in connection with the adoption of the EU's *a.c*. by Poland on the one hand, and Ukraine not being in the single European market, and support of European structural funds on the other.

Before the «Orange Revolution», when Ukraine followed a course similar to that of Russia, Poland practically implemented the institutional market system and *a.c.* of the EU. Ukraine's accession to the CIS slowed down the process of the establishment of market principles and state capitalism with the heterogeneous role of the state in the economy, as regards requirements for competitiveness. Inconsistency in the process of the transition to a market economy and the democratization of a state facilitated merger of the government's interests with those of powerful capital and the strengthening of the opportunism inherited after the centrally-planned economy. An economy without a plan and even without the institutional foundations of market efficiency resulted in various social ills, including the spread of social poverty, corruption and the enrichment of only a small amount of the population. Due to underdeveloped institutions of competitive order, the general public could not engage effectively in the establishment of markets using their entrepreneurship. The institutional system that did not meet the requirements of efficient markets did not guarantee adequate protection of property rights, free

choice and compliance with contracts. This institutional environment opened the way to pathological entrepreneurship, which was often conducted through the prism of corruption, opportunism, and even crime. Therefore even now, the level of business risk in Ukraine remains very high.

A major obstacle during the establishment of efficient markets was the lack of access to the models, which Poland could use, when it decided on integration with the EU. For political reasons, Ukraine has not received such extensive international, intellectual and moral support for the process of the establishment of the market. Without appropriate models of state subsidiarity, attempts to overcome the challenges of global capitalism, alone or in cooperation with Russia, were unable to bring expected results.

The answer to the question on the applicability of the Lisbon Strategy (LS) model in the process of the reduction of the distance in development for a post-socialist country that does not belong to the EU is complicated by the fact that many economists attribute excessive state and supranational regulation to the methods set forth within it; the harmfulness of the state's social protection for entrepreneurship, efficiency of markets and competitiveness of the national economy and enterprises; dominance of the development ambitions of the largest and richest member states and, in connection thereto, inadequacy regarding the challenges of global capitalism. There are also accusations that the EU institutional system is not able to accept the challenge of the information and telecommunications revolution, global liberalization processes and increasing competition[25].

LS applies planning, that in some ways is close to practices carried out within the framework of macroeconomic planning, characteristic of a centrally planned economy. The difference is that the above planning is indicative and takes place within a market economy. In other words, it is an attempt to support autonomous market processes by the stimuli that are driven by the central strategic coordination exercised by the subsidiarity principle. At the first stage of implementation (2001—2005), the priorities of LS were aimed at reducing technological lag with the simultaneous ensuring of social cohesion by:

— the development of knowledge in society (education and human capital, informatization, support of innovation as well as the research and development sector), development of human capital and economic growth in accordance with the social objectives of development;

[25] In Poland the system diagnosis of the Lisbon Strategy is presented in the annual reports of the Polish Lisbon Strategy Forum in the form of a White Paper. 2003 saw the publication of the «*Polska wobec Strategii Lizbońskiej*» report, PFSL, Warsaw — Gdansk, 2003.

— creation of a legal environment, that would be conducive to entrepreneurship (innovation, investment, reduction of bureaucracy and cost for the registration of enterprises);

— formation of the labour market (employment growth to 70 % in 2010, increasing the retirement age to 63 years, elimination of barriers to the employment of women, the provision of pre-school for 90 % of children aged 3 to 7 years and 33 % of children under the age of 3, ensuring the stability of pensions, implementation of programmes for the eradication of poverty);

— execution of obligations regarding the establishment of unified, liberal markets in the area of: transport business (rail, aviation as well as the transportation of gas and electricity), financial services, elimination of barriers to the free movement of services, ensuring the uniform application of competitiveness principles;

— promotion of measures for the protection of the environment (ratification of the Kyoto Protocol).

The package of intentions, with the exception of proposals relating to the information society, was laid down in EU-15 countries earlier, though some of its parts were not united into a single program. The task of these priorities is to ensure increased productivity by expanding the ICT sector, limiting structural unemployment and increasing employment as well as taking advantage of the common market, particularly through the opening of markets, which were previously protected, and as a result of the commercialization of the health care and pension system.

The Lisbon strategy is based on 28 main and 12 additional objectives, as well as 117 indicators, which are periodically monitored. The question of funding remains in the competence of the Member States on which the strategy is focused, provided that it cannot go beyond the *a.c*. of the EU. This means the obligation to comply with the subsidiarity and solidarity principles, through which it is possible to use the financial support of structural funds and Cohesion Fund.

The advantage of the Lisbon strategy is its integrated, holistic approach to stimulating development and implementation and the attempt to harmonize effective economic growth with social cohesion, ecological development and the expansion of knowledge-based economy. Priorities are implemented by agreement on common goals during negotiations, their inclusion (considering specific ways of achievement) to national and regional programs, coordination of methods for measuring performance, and the observation, evaluation, comparison and exchange of experience, also the use of directives may be permitted to some extent.

The experience of several years of ongoing efforts to introduce LS indices, priorities and goals showed that despite partial success,

particularly in the area of performance indices, the distance between the economies of the EU and the USA is not decreasing and the priorities in research and development were not implemented. However, the biggest problems emerged during the introduction of the single market and the demonopolization of those sectors of the economy that are sensitive to social pressure and are a priority in view of political considerations (transport, energy), as well as in the sphere of the reduction in the level of protection of social security (retirement age, working hours and so on). Employment priorities, the task of which was to increase the share of employed persons in the general population, have not been attained either. In 2000-2004 the unemployment rate rose from 8.5 % to 8.9 %. In addition, many countries observed the phenomenon of premature exit from the labour market (retirement) of middle-aged workers, who, in the case of the USA or Japan, would have stayed at the top of their professional career (Csaba L., 2005).

Drafted in 2004 the *Wim Kok's* Report offers a detailed study of the causes of problems in implementing the priorities of LS (The Lisbon Strategy ..., 2005). Its authors argue that social and economic cohesion may be provided on condition that orientation is directed towards economic growth and the availability of new jobs. Thereto, social and environmental priorities should be implemented so as not to interfere, but rather to contribute to higher economic growth.

The spring session of the European Council (March 2005), concentrating only on measures regarding full employment and economic growth, did not introduce significant changes in social and economic cohesion. In matters of regulatory policy the Council is inclined to keep it at the current level. This means that the main reason for the failure of the Lisbon strategy — the reduction of regulation and moreover, deregulation — was never included in EU goals.

The revised Lisbon strategy is based on the following priorities:

— increase of competitiveness and innovativeness of the economy;

— improvement of the technical and social infrastructure;

— employment and human resource growth;

— regional development, rural prosperity and increased territorial cohesion;

— establishment of a single social Community and its security.

At the same time it emphasizes the need to strengthen the European social model based on increasing employment and social cohesion. These indicators will be achieved through the European Social Fund, which in 2010-2013 will focus on six key areas, particularly:

— strengthening the adaptive capacities of workers and enterprises;

— increasing access to the employment system, combating unemployment and increasing the duration of professional activity;

— promoting social integration through the promotion of the professional involvement of those who are disadvantaged in the labour market and combating discrimination;

— promoting partnership for reform in the employment and integration spheres;

— increasing investment in human capital;

— strengthening the institutional capacity and efficiency of public service.

In practice, it means support for enterprises, especially small and medium ones, in the field of human investment, the implemention of systems and training programs, spreading information and communication technologies, new forms for the organization of work. Another line of action should be: development of mobility and self-employment, removing barriers to access to labour market, the professional integration of women and combating various manifestations of work discrimination against women. To mitigate the negative effects of demographic processes the promotion of active old-age and the development of education throughout life is proposed. Instead, the task of the reform of education and training, development of lifelong learning, academic training, establishment of a cooperation network of companies, educational institutions and research centers is to increase investment in human capital. The European Social Fund aims to strengthen the effectiveness of administrative services by supporting the planning, monitoring and validation of programs and the training of management personnel.

It should be emphasized that in the case of Poland, the full implementation of LS priorities by 2013, imposed through the National cohesion strategies of Member States, could result in a reduction of the development distance as regards EU-25 to 33 % from 50 % — in 2007. However, the preservation of these trends would open the prospect of overcoming lag within one generation.

The supporters of integration in the EU are convinced that all Central and Eastern Europeean countries participating in European integration processes, despite temporary problems, will eventually benefit from the introduction of *acquis communautaire* and the Lisbon Strategy, which will surely prevail over the disadvantages of this process, but warn that it will not happen immediately and automatically. The example of East Germany, despite its specificity, is an important warning, which indicates that the process of introducing the whole institutional and legal heritage of the Community and economic policy, characteristic of EU Member States, are not always accompanied by convergence, even when a new technical infrastructure has been built and mass training in the direction of adjustment of human capital has been conducted.

Experts share the view that a less developed country should join the EU for the progress of civilization, strengthening of security and receipt of support for measures regarding socio-economic development by opening access to higher quality policy standards, financial support and the subsidiarity of the state, which is based on economic responsibility of its beneficiaries, as well as the mobilization of efforts of central and local authorities for social and economic cohesion.

Still, it should be noted that the application of principles of the Lisbon Strategy means orientation on high European technical, social and environmental standards that are developed for economies with a higher level of development and productivity than Poland or Ukraine. Their execution requires a conscious and competent reorientation of state functions, the rationalization of the public sector and overcoming the pitfalls of public debt. Without the rationalization of budget policy, it is impossible to free the economy from the paradoxes of human capital development and the degradation of social capital.

In the case of Poland, the task of new reforms in health care, education or social protection is the transparent distribution of responsibility for the level and quality of services between the state, self-government bodies and subjects of specific industry, to be achieved as a result of public consensus. This is impossible to achieve without the transparency of policy and the constant depreciation of the achievements of predecessors. Public debate is a very effective instrument for reaching understanding and getting the support of the general public, it helps to protect from the domination of sectoral interests and is expedient in the debate on the forum of the European Parliament.

The harmonization of policies regarding direct taxes cannot be only in the interests of developed countries. Countries with incommensurable worse prerequisites for achieving high productivity of capital should retain the right to implement such tax policy that will attract foreign investment and maintain national savings. The advantage of such a policy is confirmed by the example of Ireland.

The excessive distribution of state aid also does not facilitate the developing countries, because they cannot withstand competition with richer countries. Extensive state support creates an unfavorable environment for the influx of direct foreign investments. Therefore, it is more reasonable to apply substantial restrictions to sectoral state aid.

Ukraine and Poland urgently need to modernize the social policy model. The use of excessive and petty labour standards, minimum wage and environmental standards is inefficient. Norms and standards often become a dangerous tool for imposing the rules of the game, as a result of which, highly developed countries can gain a significant advantage. A necessary prerequisite for regional convergence is the European cohesion

policy model, which is realized by means of structural and regional aid on the principles of subsidiarity. A country that is not an EU member should find the right way to achieve a dynamic balance between the needs of economic growth, social cohesion and environmental development.

For social and cultural reasons it is impossible to make a rapid improvement in the institutional system of Ukraine, to preserve a high level of social cohesion and simultaneously achieve better economic performance. In this regard, the question arises of the establishment of a reflexive upgrade of human capital, which develops ways of thinking and action towards creativity, entrepreneurship and self-responsibility, as well as the determination of the role of the state and its institutions in this process.

Fundamental to civilization breakthrough of Poland, Ukraine or other post-socialist countries is not so much the strategy of correctly identified objectives laid down, e.g. in the LS, but an effective institutional regulatory system, which enables the achievement of the competitive advantage of the economic system. In an information society, liberal goods, financial services and labour markets and easy access to the latest technology, competition between national economies represent first of all, competition between institutions. Each society that seeks to overcome its own lack of development and implement a policy of social and economic cohesion, should make an effort to make the relevant legal and regulatory changes. Their implementation will take place within the market with the support of central strategic coordination and will be based on the principles of institutional order, the task of which is to achieve the stable balanced development, based on social, territorial and environmental cohesion. The above changes should also be free from those regulations that threaten economic efficiency. This means that the *a.c.* of the EU and the Lisbon Strategy are examples that should be considered in more depth, in the light of opportunities and threats to the development aspirations of Ukrainian society. In this regard the question arises on the possibility of using Polish experience in the field of institutional adaptations and the Development Strategy it has implemented (2006—2013).

1.5. The Convergence of National Economies under Conditions of EU Expansion

1.5.1. Introduction

Beginning with the 21st century, the world faced the problems, challenges and imperatives, to the systemic understanding of which it was not and is still not ready for. Among them the most important place is given to the vision of prospects for effective and safe development in conditions of

globalization, the multidimensional manifestation of which is due to the increased scale and dynamization of the international movement of goods, services and factors of production, information, technology and innovations. Economic globalization is characterized by brand new conditions and mechanisms for the convergence of national economies with the systematic internationalization of all spheres of human activity. Actually, under present conditions we can speak of a new global economy (O.H. Bilorus, 2003; T.V. Kalchenko, 2006; B.V. Prykin, 2003; P.W. Daniels, 1998), although today globalization, in our view, is a process that is not completed in a geo-economic, scientific and technological, as well as sectoral and functional sense.

In foreign and domestic research, various methodological approaches are applied, optimistic and pessimistic scenarios of the development of human civilization are proposed (F. Fukuyama, S. Huntington, J. Soros, E. Azroyants, Y. Pakhomov, O. Bilorus). However, based only on theoretical concepts, differentiated according to current practical needs it is impossible to define the political, economic, social and cultural parameters of the future global organization of life of people and nations clearly and unambiguously [26].

In the context of the traditional paradigm of economic development through the spreading of innovations in technology and management, the intensive exchange of goods, services and investments globalization contributes to overall progress. Under conditions of economic globalization, international standardization and rationalization of production and technology, investment and marketing operations spread, which leads to new opportunities of the increased competitiveness of business entities.

1.5.2. Globalization

In recent decades there has been transformation of motivational mechanisms and business environment, transition from perfect to imperfect and further to **global competition** — struggle of global market players for resources and conditions of sustainable and safe development at corporate, state, regional and inter-civilization levels. It modifies qualitative analysis methodology characteristics: macro-and micro-differentiated and functional approaches are replaced by an integrative approach (Figure 1.2).

[26] Modern theory in its traditional paradigms can neither predict the future nor properly interpret the current reality, i.e. the gap between science and practice increases in favor of the latter. Methodology of globalistics as a relatively «young» science, although a priori, is interdisciplinary in nature (schools of universal evolution, controlled global development, economic sociology, environment and the economy), actually is emerging in a somewhat narrow range of topical issues and is limited primarily to the research of economic, political, social and informational globalism, based on diverse analytic tools.

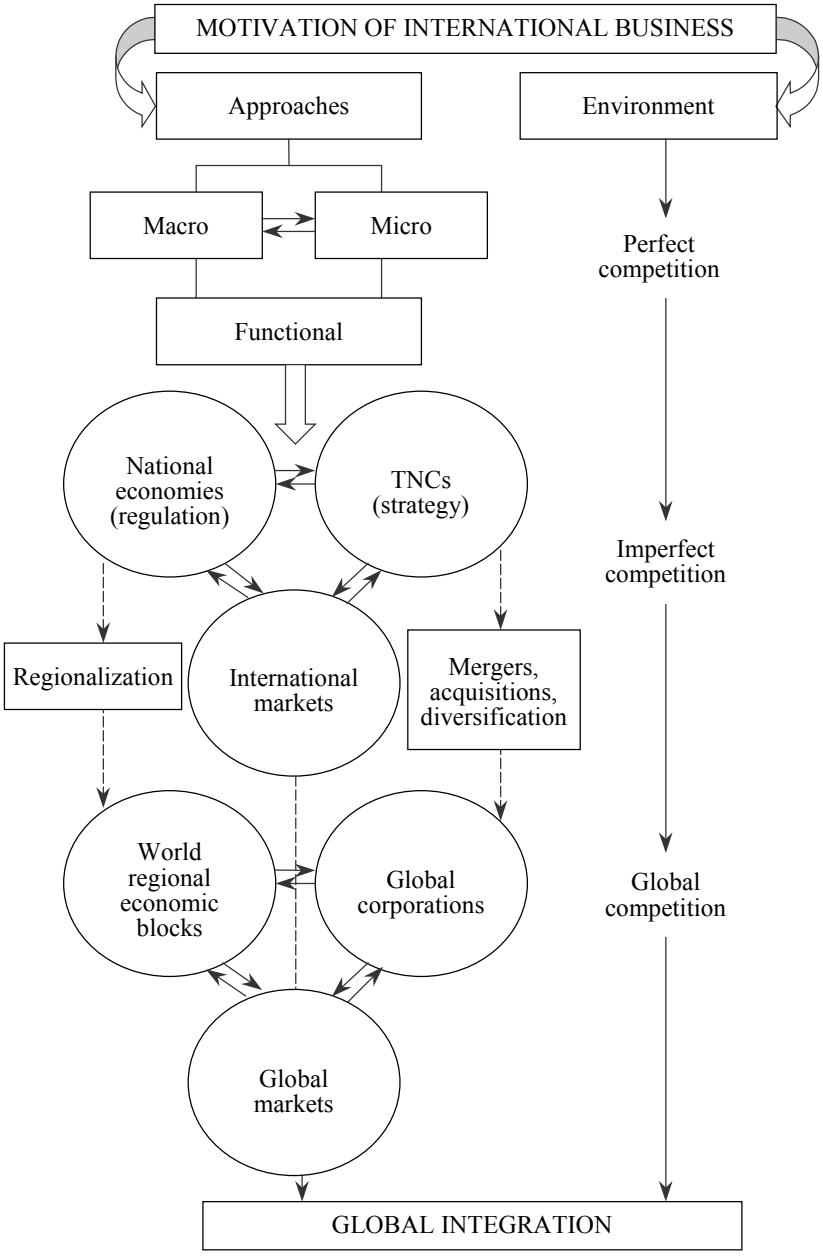

Figure 1.2. Integrative Model of Global Competition

In this context economic globalization, on the one hand, facilitates the global convergence of markets, and on the other — becomes its main consequence. This is due to the development of transnational business in conditions of macroeconomic liberalization. At present, about 80,000 companies around the world, controlling about 770,000 foreign affiliates, are on the transnational stage of development and concentrate the lion's share of the global flow of goods, services, investment, innovation, 75-80 % of R&D activities.

In the mid 1980s global strategies were initially formed in some of the most active TNCs, then in their wider circle. They were aimed at global vision of competition in the oligopolistic market structure, operation in high-tech industrial sectors, coordination of their activities through flexible production and information technologies, the integration of their companies and specialized branches into a single international administration network, etc.

The formation of global corporate structures occurs largely through mergers and acquisitions. The total volume of such transactions at the peak in 2000 exceeded USD 720 billion. Thereto, according to UNCTAD, developed countries accounted for more than USD 670 billion. For a long period, mergers and acquisitions allowed multinational companies to obtain the strategic assets of other firms, monopolize markets, achieve synergies, increase the size and diversify risks, extend the financial possibilities of the implementation of the personal interests of senior management and others.

In the progressing post-industrial segment of the global economy, the leadership ambitions of global corporations, coupled with a dynamic quazieconomic culture generate new quality structural and organizational transnational changes towards metacorporatization. In the process of market expansion, metacorporations not only implement the general and specific features of big business, but also the latent functions of a real economic power[27]. In modern business practice there are such forms of metacorporations as circular, horizontal, shell corporations, quazi holdings, virtual corporations, network corporate structures that adequately integrate the connections of elements of the internal and external competitive environment to global conditions.

It is the metacorporatization of business that conditions its virtualization as a universal trend, when the traditional physical and

[27] The competitiveness of metacorporations and their leadership is implemented on condition of leading banks, industrial companies and other large structures becoming part of their composition. Therefore, the most common prototypes of metacorporations are cartels, syndicates, trusts, consortia, concerns, unions and business associations, pools, holding companies, strategic alliances, financial-industrial groups, transnational companies with a divisional structure, etc.

legal characteristics of companies and their corporate culture are lost. The network organization (virtualization/decentralization) of the activity of metacorporations leads to a blurring of boundaries between companies, the disappearance of delimitations between internal and external members of an organization, own and foreign resources, large and small firms, etc.

In general, the global corporations dominating the goods, services, capital, technology, managerial innovation markets have actually become the most influential players on the world economy and at the same time — the most dynamic of its structural elements. By mobility, ability to adequately respond to changes in external competitive environment, innovation orientation they surpass bureaucratic, not only national, but also international organizations and regional supranational formations. The activities of global corporations, which will clearly have no alternative in international business, will largely determine the convergence mechanisms of national economies, contours of the future global economy, philosophy of global competitiveness and leadership. At the same time global reproductive processes within national economies are distorted, thereby discrediting traditional theoretical concepts concerning macroeconomic proportions, stability and efficiency.

Despite the obvious, partly phenomenal manifestations, at present globalization is not comprehensive and universal, because it does not actually cover all countries, regions and industries, although it has a progressive development potential in this direction. It is not straightforward and homogeneous, especially given positive and negative manifestations, when costs and benefits connected with the process of economic globalization, are distributed unevenly, asynchronously and disproportionately, especially between the countries (Figure 1.3).

An impartial analysis shows that the socio-economic gap between countries — global leaders and countries-outsiders is progressing, reflecting primarily gaps in the generation and mastering of technological innovations in the modern informational environment. Buying and soliciting intellectuals from the developing countries, leading Western countries are accumulating the most competitive part of global human resources (in terms of post-industrial development criteria). The concentration of intellectual capital and information resources in a small group of post-industrial countries leads to a kind of technological «colonialism» when the preliminary expenditures of these countries on science and education objectively produce the effect of the use of global technological rent.

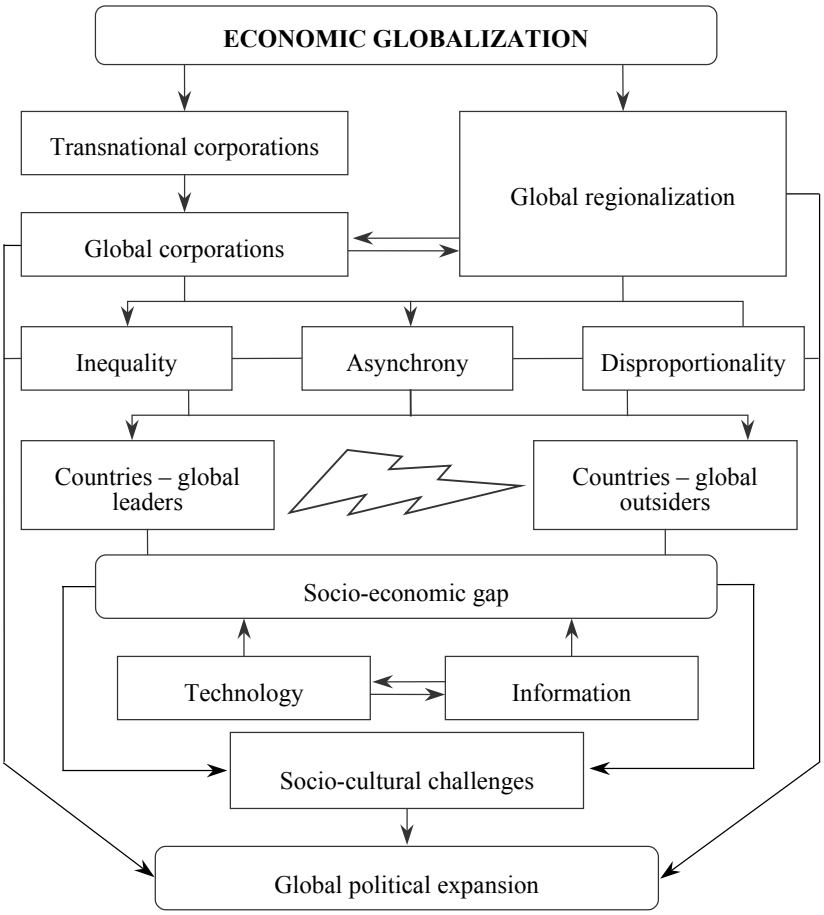

Figure 1.3. Contradictions of Economic Globalization

It is especially important to consider the scale and dynamics of the process for the establishment of the global management of the planet's resources and the redistribution of world income, which is not equivalent (E.D. Smith, 2004). It makes an ambiguous impact on the vital activity conditions of people: while doubling gross world product in the last 30 years and improving the quality of life of the majority, the gap in the income of the wealthiest and the poorest countries is constantly increasing (one-fifth of the world population living in countries with the highest income account for about 90 % of world GDP, while the poorest fifth accounts for 1 %), OECD countries (20 % of the world population) account for 70 % of world trade, 60 % of FDI, more than 90 % of Internet

users; there is no trend to bridge the gap between the rich and the poor, even in highly developed countries, regional social asymmetry is characteristic of the European Union.

In general, on the one hand, globalization is the source and stimulus of competition, providing new opportunities for development, and on the other — generates contradictions, conflicts and crises on a local and general civilization scale (D.H. Lukianenko, O.L. Bakayev, 2003). In our view, the theoretical and methodological plan contains a systematic asymmetry of economic development generated and strengthened by increasing global interdependence. Global economic asymmetries (financial and investment, production, trade, infrastructure) should be considered in the context of technological and information asymmetries that cause geopolitical and inter-civilization asymmetries in a heterogeneous social and cultural environment (D.H. Lukianenko, O.M. Mozhovyi, 2006).

1.5.3. Regionalization

The interstate asymmetry of economic globalization becomes more apparent when countries — global leaders, which as a result of successful long-term expansion in all segments of the global market, have accumulated unprecedented financial and human capital, are concentrated on one pole of the global economy, while most countries — global outsiders, which cannot be active participants of globalization on a par, trying to somehow respond to its challenges are concentrated on the other. In other words, the logic of convergence is transformed into national strategies of adaptation or even survival.

Under these conditions, interstate regional integration groupings require special attention — free trade zones, customs unions, which currently number about 300, as well as common markets, economic and political alliances. Modern economic regionalism is characterized by: firstly, the dynamic integration process caused by both objective factors and the «chain» reaction of countries to the development of integrated groupings in other regions of the world; secondly, uneven development and implementation of forms of international economic integration caused by obvious differences in the economic development of a country and regions of the world; and thirdly, disintegration processes, which have deep roots in historical, political, economic and social patterns of world development.

On the one hand, having original preconditions, developing in different ways on a voluntary or compulsory basis, economic regionalism, particularly in its modern continental forms (EU, NAFTA, APEC), promotes the convergence of national economies and the formation of a

homogeneous world market. As a response to the competitive challenges of globalization under the contradiction of national leadership ambitions and development strategies, the mechanisms for balancing interests and harmonization of rules of the game emerge in the most important regional markets. This generates significant static and dynamic effects, and the natural characteristics of a national state regulatory and protective function are transferred to a larger legitimately institutionalized supranational level. The geography of competitive integration ranges is determined by the centers of power, around which the fields of common national interests for economic convergence and further consolidated counteraction to global competitors: Western European, North American, Asia-Pacific, Eurasian (Table 1.2) are formed.

Table 1.2

INITIAL COMPETITIVE POSITION OF MAJOR REGIONAL INTEGRATION ZONES

Characteristics	EU	NAFTA	APEC	CIS
1. Continent	Europe	North America	Asia, Australia	Eurasia
2. Year of establishment	1957	1994	1989	1991
3. Number of member states	25	3	15	11
4. Associated members	12	—	6	1
5. Potential (as a % of the world)				
5.1. Territory	2.4	15.9	15.5	16.4
5.2. Population	6.5	6.7	29.8	4.9
5.3. GDP	28.9	28.6	26.9	1.6
5.4. Production of energy resources	8.3	26.2	16.8	15.3
5.5. Consumption of energy resources	15.1	29.4	20.9	11.9
6. Integration centres	Germany, France	USA	Japan, China	Russian Federation
7. Secondary centers	Great Britain	—	USA, Russian Federation	—
8. Potential for further integration	Eastern Europe	South America	South Asia	Balkans, Central Asian Countries

On the other hand, in the context of global competitiveness interstate integrated regional interests may conflict with the motives of the global expansion of TNCs, separate block countries from activity under multilateral universal obligations, and «closed» regionalism often gives rise to protectionism as regards «third countries» (groups of countries) discrediting market competition and blurring the background of global economic convergence. Significant geo-economic changes are provoked: the line of interaction «West-East» shifts to «West-South East» along with the weakening of the competitive unity of the «West» due to contradictions between the New and Old World. The global competition of the North and South with the organizational principles of the geo-economic universe, which are substantially different from the usual ones, is activated (A.I. Neklessa, 1999).

Powerful integration processes, on the one hand, and increasing asymmetry in regional development, on the other, form the basis and environment for global and regional leadership. Thereto, the triad of leaders of the world economy, the structure of which includes countries with different levels of internationalization, is transformed into a triad of systemically interconnected national economies (Figure 1.4).

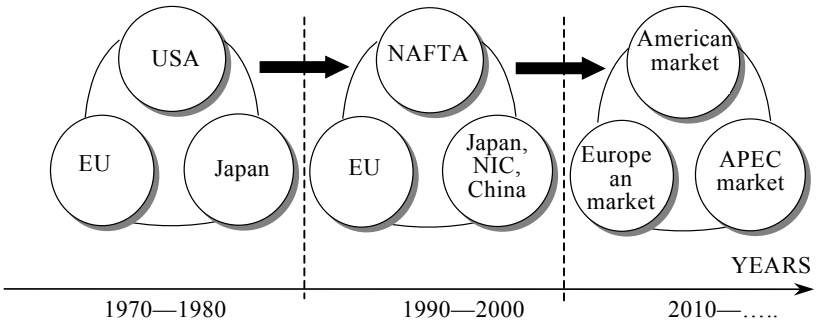

Figure 1.4. Evolution of the World Economic Triad

The value of the triad in terms of global development is manifested not only in its concentration of the largest scale of the flow of goods and capital, the creation of a field for TNC activities that are unprecedented in size and quality, but also in the influence of the triad on all other national economies: on the one hand, their inclusion to the internal markets of the TNCs' triad, and on the other — involvement in regional integration processes.

1.5.4. Strategic Directions of the EU Policy

Under modern conditions the competitive potential of the European Community increases significantly. It is important that geopolitically, European integration has become a priority not only for Central and Eastern Europe, but also for other countries that will have a common border with the enlarged EU, in accordance with the concept a «Wider Europe — Neighbourhood: a New Framework for Relations with our Eastern and Southern Neighbours» (2003).

Thereto, Eurocentrism as the most vivid contemporary integration process has almost all the asymmetry of development that intensifies under EU expansion (D.H. Lukianenko, V.I. Chuzhykov, 2007), and the problems of convergence of national economies in the common European economic space become much more complicated.

The existence of any social and economic system will always require internal unity and the creation of a structure that is stable in the face of external and internal shocks. Thereto, the degree of economic response to global changes in individual sectors of national economy may differ, but convergence basis of the integration grouping will always secure the rapid return of the system to the sustainable, although possibly delayed development.

The term «convergence», which was introduced in 1970-80s by a Dutch researcher Jan Tinbergen, meant at that time, the possible merger of the socialist and capitalist systems, which never happened. Over time it began to be interpreted as a process for the rapprochement of countries, industries and regions, with a number of indices being applied as its indicators.

In the early 90s, the research of convergent processes becomes very popular, primarily because of the need to determine the prospects and forecasts of economic growth. Rapprochement of countries and borders was at the focus of a serious study by R. Barro and X. Sala-i-Martin (1991). A year later (1992) they published a major work in the «Journal of Political Economy», uncovering the theoretical results on the nature of the socio-economic convergence of countries and economic unions.

Over time, the definition of «convergence» becomes much more complicated, because the use of economic indices has led to its further differentiation. The definition of nominal and actual convergence (W. Andreff, 1998) and its many mathematical interpretations (α; β, γ, δ — convergence)[28] was launched, which henceforth extended to the zone of

[28] The types of convergence, described vividly in paragraph 1.3, are purely empirical in this part of the monograph. (*Note of the editors*).

political transformations (i.e. «Copenhagen criteria for accession») and the relevant economic policies of monetary and fiscal rapprochement. At that time, the enhancement of theoretical research was connected with the names of G. Mankiw (1995), M. Buti, A. Sapir (1998) and the previously mentioned X. Sala-i-Martin (1996) and R. Barro (1997), who from then on continued their own research.

Ideas of the further expansion of the European Union in the late 1990s spread significantly, while socio-economic convergence began to be understood as the only necessary and in essence, a fairly capacious process of the systemic rapprochement of member states and candidate countries. The rate of implementation of *acquis communautaire* could also be considered as convergence, which, unlike scientific models, acquired clear formalized forms.

Problems of the transformation of economies in Central and Eastern European countries (CEE) and their rapprochement with the EU are discussed widely in the works of many scholars, including L. Balcerowicr (1994), G. Kołodko, M. Nuti (1997), J. Kornai (1992), O. Havrylyshyn and R. van Rooden (2000), D. Berkowitz and D. Delong (2003). At the beginning of the 21st century, interest in the mathematical identification of the convergence of post-socialist countries in the region increased significantly. One after another, the works of A. Warner (2003) are published, who by means of special tests, managed to assess the nature of the convergence of CEE countries (by the way the existing English word «convergence» was complemented by another its analogue — «catch-up») using the regression analysis of S. Gomulka (2003), who quite aptly commented on and completed the study of A. Warner. Significant studies were also conducted in the Finnish Institute of Transitive Economy (BOFIT) and many other universities and research centers.

Modern ideas of convergence can be viewed from two aspects: the theoretical and applied ones. If the first one clearly fits into the concept of the world system with the ideal type of homogenizer (M. Fezerstoun and S. Lash, 2008), which seeks to avoid the time and spatial distance (as opposed to heterogenizers), the second is a purely pragmatic model of actual rapprochement with significant budget funds, as well as clear and transparent rules and mechanisms for their distribution. This is the model to be used in the European Union during 2007-2013.

The growth in the disproportionality of EU development due to its enlargement has led to significant changes in the regional structure of the member states, because contrasts in the development of territories have caused their rapid distancing in the demographic, social, economic and other spheres, and thus convergence (with the exception of the monetary sphere) began its identification on the monetary level.

Despite the significant success of the EU regional policy in past years, not all Europeans treated it as a standard for further imitation, because the overall low economic growth rate of the old Member States forced the EU to treat «encouraging results» differently. A critical assessment of its activities led to the formation of new approaches to the implementation of the idea of regional harmonization (also called homogenization), which clearly fits the mainstream of the neoliberal economic model, which is not adequately perceived by everyone. The main factors that influenced the transition to the modernization of regional policy (henceforth it was called the «policy of regional and local development») were as follows:

• sharp reduction of fund allocation for agriculture (governmental grants, subsidies) that until recently actually was equal to this sector's share in GDP of the European Community;

• low technological level of development of peripheral regions of the EU, which changed their economic structure very slowly, therefore government subsidies acquired of a chronic nature;

• the «revolt» of rich regions against the poor (members of the European Parliament from some developed territories raised the albeit rhetorical, but in general dangerous question for the EU of whether, for example, «not the whole of» Italy become part of an integration grouping; recently to this was added the problem of two, and since 2008 — even of three Belgiums);

• the need to coordinate uniform transport, communication and other policies relating to both regions and the EU as a whole;

• an extremely high level of unemployment in some regions of the EU (Spain, Poland, Slovakia, Romania, France, East Germany, etc.), the development of «consumer» attitudes among the New EU Member States from the perspective of the Old Members States;

• major expansion of the EU and significant expenditures from its consolidated budget, related to pre- and post-accession adaptation periods;

• reluctance of some EU leaders to constantly pursue the «maintenance of New Member States» policy.

The main events that influenced the change in EU regional policy were as follows:

• adoption by the European Council (2005) of the proposal for a compromise budget for 2007-2013, in which EUR 347.410 bln were allocated for the cohesion policy (official website of the European Commission ...)

• conclusion of the Interinstitutional Agreement on cooperation in budgetary matters for 2007-2013 (May 2006) between the European Parliament, the council and the European Commission (which also included Rules for the regulation of structural funds, which became effective on August 1, 2006);

• adoption by the EU Council of «Common Strategic Guidelines for Cohesion» (October 2006), which clearly identified the principles and priorities of rapprochement policy.

What changes in the EU? First of all, this pertains to EU objectives and financial instruments that henceforth are determined exclusively by the Structural Funds and the Cohesion Fund. The following Table 1.3 gives a systematic understanding of the fundamental changes in the EU.

Table 1.3

CHANGING PRIORITIES AND FINANCIAL INSTRUMENTS IN THE EU COHESION POLICY

<table>
<tr><td colspan="5">Architecture of the cohesion policy</td></tr>
<tr><td colspan="3">2000—2006</td><td colspan="2">2007—2013</td></tr>
<tr><td>Objectives and initiatives of municipalities' Cohesion Fund</td><td>Financial instruments</td><td>></td><td>Objectives</td><td>Financial instruments</td></tr>
<tr><td>Objective 1. Promotion of the development and restructuring of regions that are lagging behind</td><td>ERDF
ESF
EAGGF
FIFG</td><td rowspan="2">></td><td rowspan="2">Convergence</td><td rowspan="2">ERDF
ESF
Cohesion Fund</td></tr>
<tr><td>Cohesion Fund</td><td>Cohesion Fund</td></tr>
<tr><td>Objective 2. Support of regions with structural problems in the sphere of socio-economic transformation</td><td>ERDS
ESF</td><td>></td><td rowspan="2">Regional competitive-ness and employment</td><td rowspan="2">ERDF
ESF</td></tr>
<tr><td>Objective 3. Modernization of policy in the education, vocational training and employment spheres</td><td>ESF</td><td>></td></tr>
<tr><td>Interreg III</td><td>ERDF</td><td rowspan="3">></td><td rowspan="3">European territorial cooperation</td><td rowspan="3">ERDF</td></tr>
<tr><td>Urban II</td><td>ERDF</td></tr>
<tr><td>Equal</td><td>ESF</td></tr>
<tr><td colspan="2">Leader +</td><td>EAGGF</td><td colspan="2"></td></tr>
<tr><td colspan="2">Rural development and restructuring of fisheries under objective 1</td><td>EAGGF and FSFG</td><td colspan="2"></td></tr>
<tr><td>4 objectives
4 joint initiatives
Cohesion Fund</td><td>6 instruments</td><td>—</td><td>3 objectives</td><td>3 instruments</td></tr>
</table>

Source: Cohesion policy 2007—13, 2007, p. 10.

As follows from the Decision of the European Council (2005), the relevant Interinstitutional Agreement (May 17, 2006) and «Commutity Strategic Guidelines on Cohesion» approved by the EU Council (October 6, 2006), approaches regarding the implementation of the EU regional policy are changing fundamentally. The main goal of the EU for 2007-2013 becomes the convergence (rapprochement) of regions, which hence becomes the key objective of the Community. Thereto, the financial instruments are as follows: the European Regional Development Fund (ERDF), the European Social Fund (ESF), the Cohesion Fund. It should be noted that previously there were six instruments. In other words, the objectives of regional policy become more specific, and quite significant financial resources are concentrated in only three funds, which partly assume the main functions. The approach to defining depressed regions also remains only partially. As you know, in 2000-2006 the regions with a GDP index equal to 75 % and lower per capita as compared to the average in the EU-15 (EU = 100 %) were considered depressed. During 2007-2013, this indication will be preserved and the specified limit will not be recalculated each time the EU is enlarged (e.g. the EU-25; the EU-27). The Cohesion Fund, whose activities now extend to the entire not being limited to the outsider Member States, will also use the Union indicator of Gross national income (GNI) with a «critical limit» of 90 % as compared to the average in the EU-15 (rather than the EU-25)[29]. This approach is likely to be regarded as a compromise, because if the said index was compared to all of the EU (i.e. all 27 membe-states), the users of 'aid' would also be those regions of NUTS-II level, which are classified as depressed, although they are located within the leading EU Member States (France, the United Kingdom, Germany, Italy, etc.). As a result of numerous agreements and calculations, the EU received four groups of recipients:

• regions that need support for the purpose of «convergence»*, including:

a) «new» EU Member States: Bulgaria, Estonia, Latvia, Lithuania, Poland, Romania, Slovenia (the whole territory), Czech Republic** (7 regions), Hungary** (6 regions), Slovakia** (3 regions);

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[29] A significant advantage of the «implementation» of the scientific achievements of economists working in the EU can become the process of the adequate evaluation by EU officials of the results of their research. Thus, the criticism expressed at one time (2004) of «development indices» was soon reflected in relevant EU documents. See.: Faina A., Lopez-Rodrigues J. (2004).

* The EU approach is to identify the regions by their national names and not to translate them into English or French. Bulgarian and Greek regions are written with Latin letters.

** The list of depressive regions lacks the metropolitan region, the macroeconomic indices of which are well above the depression threshold.

b) «Old» EU Member States: Germany (Brandenburg—Nordost, Mecklenburg—Vorpommern, Chemnitz, Dresden, Dessau, Magdeburg, Thüringen); Greece (Anatoliki Makedonia, Thraki, Thessalia, Ipeiros, Ionia Nisia, Dytiki Ellada, Peloponnisos, Voreio Aigaio, Kriti); Spain (Galicia, Castilla—la Mancha, Extremadura, Andalucia); France (Guadeloupe, Martinique, Guyane, ReCommunity); Italy (Campania, Puglia, Calabria, Sicilia); Portugal (Norte, Centro, Alentejo, Regiao Autónoma dos Acores); the United Kingdom (Cornwall and Isles of Scilly, West Wales and the Valleys);

• convergence regions that require a transitive support system (are in the final stage): Belgium (Province du Hainaut); Germany (Brandenburg-Südwest, Lüneburg, Leipzig, Halle); Greece (Krntriki Makedonia, Dutiki Makedonia, Attiki); Spain (Princspado de Asturias, Region de Murcia, Ciadad Autónoma de Ceuta, Ciadad Autónoma de Melilla); Italy (Basilicata); Austria (Burgenland); Portugal (Algarve); United Kingdom (Highlands and Islands);

• states that require funding from the Cohesion Fund (all twelve New Member States plus Greece and Portugal);

• states that require transitive support from the Cohesion Fund (Spain).

Thus, the activities of EU Structural Funds, which now also include the Cohesion Fund, are differentiated and clearly identified by application levels: state and NUTS-II regions. Ireland, for the development of which substantial funds were allocated in the past fifteen years, is no longer among the list of depressed regions. It can be also considered that during the adoption of the new EU development strategy the pan-European compromise was reached regarding the consolidation of the depressed regions of the Old and New EU Member States.

Objective 2 «Regional Competitiveness and Employment», which actually merged two previous objectives from 2000—2006, is also vital. Most of the Funds in this direction will now be available for the two major groups of countries and regions: those undergoing early reforms, but are parts of the Old EU Member States (Ireland, Greece, Spain, Italy, Portugal, Finland, Great Britain, and, as an exception, one region from Hungary and one — from Cyprus, the hyperactive territories of which have comparable performance) and 16 countries with regions requiring improved competitiveness by funding measures to optimize the employment structure in them (thus, the following eligibility: employment, unemployment, proportion of employed in agriculture, i.e. the sectors that are subsidized in the EU, etc.).

The «European Territorial Cooperation» objective is also very important having taken over the main functions of the previous «Interreg III», «Urban II» and «Leader+» European initiatives. Unlike the previous objectives the recipients of the appropiated funds will be all EU countries.

Clearly, the enlarged EU has many problems in the distribution of funds between «Old» and «New» Member States. However, in our opinion, the convergent interests of the whole Community rather than «national egoism» of the most developed countries are more apparent (Table 1.4).

Table 1.4

DISTRIBUTION OF FUNDS FOR THE OBJECTIVES OF REGIONAL POLICY AMONG EU MEMBER STATES FOR 2007—2013 (current prices, EUR mln)

Country, planned general measures	Convergence of EU regions			Regional competitiveness and employment		European territorial cooperation	Total	Share of country, planned measures, %
	Cohesion Fund	Convergence	Completion stages	Launch stage	Regional competitiveness and employment			
Belgium	—	—	638	—	1,425	194	2,258	0.65
Bulgaria	2,283	4,391	—	—	—	179	6,853	1.97
Czech Republic	8,819	17,064	—	—	419	389	26,692	7.68
Denmark	—	—	—	—	510	103	613	0.18
Germany	—	11,864	4,215	—	9,409	851	26,340	7.58
Estonia	1,152	2,252	—	—	—	52	3,456	0.99
Ireland	—	—	—	458	293	151	901	0.26
Greece	3,697	9,420	6,458	635	—	210	20,420	5.88
Spain	3,543	21,054	1,583	4,955	3,522	559	35,217	10.14
France	—	3,191	—	—	10,257	872	14,319	4.12
Italy	—	21,211	430	972	5,353	846	28,812	8.29
Cyprus	213	—	—	399	—	28	640	0.18
Latvia	1,540	2,991	—	—	—	90	4,620	1.33
Lithuania	2,305	4,470	—	—	—	109	6,885	1.98
Luxembourg	—	—	—	—	50	15	65	0.02
Hungary	8,642	14,248	—	2,031	—	386	25,307	7.28
Malta	284	556	—	—	—	15	855	0.25
Netherlands	—	—	—	—	1,660	247	1,907	0.55

Table 1.4, continued

Country, planned general measures	Convergence of EU regions			Regional competitiveness and employment		European territorial cooperation	Total	Share of country, planned measures, %
	Cohesion Fund	Convergence	Completion stages	Launch stage	Regional competitiveness and employment			
Austria	—	—	177	—	1,027	257	1,461	0.42
Poland	22,176	44,377	—	—	—	731	67,284	19.37
Portugal	3,060	17,133	280	448	490	99	21,511	6.19
Romania	6,552	12,661	—	—	—	455	19,668	5.66
Slovenia	1,412	2,689	—	—	—	104	4,205	1.21
Slovakia	3,899	7,013	—	—	449	227	11,588	3.34
Finland	—	—	—	545	1,051	120	1,716	0.49
Sweden	—	—	—	—	1,626	265	1,891	0.54
The UK	–	2,738	174	965	6,014	722	10,613	3.05
Interregional network cooperation	—	—	—	—	—	445	445	0.13
Technical assistance	—	—	—	—	—	—	868	0.25
Total	**69,578**	**199,322**	**13,955**	**11,409**	**43,556**	**8,723**	**347,410**	**100**

Source: Cohesion Policy 2007—13…, 2007, p. 25 and own calculations.

As follows from the above table, the apparent EU priority is the convergence policy of EU regions, which envisages three directions within seven years for the allocation of EUR 282.855 bln, comprising 81.4 % of all funds envisaged for structural operations. Judging by priority, objective 2 is considerably lower, the percentage of which would be only 15.8 % of total funding.

Numerous European official documents often stated that EU funds are allocated according to population, the actual state of the economy, as well as the area and social problems existing in a particular territory. Despite the disputable provision that the allocation of EU financial resources should also take into account the interests of leading states, which refuse

to ever be financial donors, the decision of European Parliament, the European Commission and the EU Council was still in favor of «New» Member States. For example, Poland received almost one fifth of the EU budget and the Czech Republic obtained slightly more than Germany. Our calculation of the final distribution of funds shows quite clearly that the Post-Socialist States of Europe account for 50.8 % of total funding, while four of the largest EU states — Germany, France, the UK and Italy will receive only 23 %. The comparison used by Spanish economists A. Faina, J. Lopez-Rodrigues (2004) is quite interesting. They distinguished the so-called «European Economic Pentagon», which is limited to London, Paris, Milan, Munich and Hamburg, in which about 50 % of EU GDP is produced, while its area is only 20 % of the integration grouping (p. 5). According to table 1.4, it will receive the least funding.

The strategic approaches and programming of regional development also underwent fundamental changes. Thus, while in 2000-2006 there were five approaches to implement objective 1 (Development Plan, Framework Support of Communities, Operational Programs, Single Program Document, Program Addition), now there are only three — Community Strategic Guidelines on Cohesion, National Strategic Framework Document and Operational programs.

A distinctive feature of EU regional policy for 2007-2013 is its binding to the Lisbon Strategy (2000), because the levels of its implementation are regions, countries and the EU as a whole. Therefore, each year they will monitor the contribution of operational programs to the national reform program (NRP). A strategic follow-up will include preparation at the state level of «Annual Report on the Implementation of National Reform Programs», and since spring 2008, the annual report on the entire EU is prepared for the European Council by the European Commission. Since the end of 2009 to the end of 2012, Member States prepared a «Strategic Report» containing information on the contribution of all programs to the Cohesion Policy, and since April 2010 the European Commission started summarizing the reports of the Member States in its «Strategic Report» that should enable the improvement of the validity of expected results due to the diversification of control levels.

The above facts are evidence of the pragmatic convergence policy model, which now extends to all spheres of life in the EU and is identified at different levels — megaregional (EU as a whole), national (EU Member States), regional (NUTS-1, NUTS-2) and local (NUTS-3 and lower). However, the definition of global prospects for Ukraine and Poland, as well as many other countries, will depend on the nature of convergent (divergent) processes in the global economy and the competition of civilizations.

1.5.5. Socio-Cultural Determinants of Convergence

The research of the problem of the convergence of national economies in the context of the formation of a contemporary globalization paradigm obviously requires the qualitative structural renewal of scientific research towards their interdisciplinary integration. In a strict sense globalization shall quantitatively cover all countries of the world, and qualitatively — all spheres of human life. Therefore, only conditionally, within the method of abstraction, can we speak about political or economic globalization, ignoring its social and cultural manifestations and challenges. It is important to realize that globalization discredits traditional ideas of the conditions, factors, sources and criteria for the success of individuals, small and large groups of people in almost all spheres of activities, businesses, countries, regions of the world. Thereto, mass material and consumer motivation in the culture of society lacks the diversity of forms, and vice versa, cross-cultural unification is inherent in it.

Absurd in its ideology, essence and forms «race for the rich» (in its dollar sense) businessmen, corporations, cities, countries, opens a moral and ethical niches of spiritual degradation, threatening the progressive development of human civilization. The point is not even in the fact that global flows of goods and the unified attractions of a consumer society, make national boundaries and government regulation increasingly weaker and less protected. Neglecting national cultures as «cultural imperialism» is a threat, eliminating differences and reducing them to external manifestations and folklore, thus undermining the ability to create an independent culture and society (Smith, E., 2004 : 121). «Westernization» affects first of all countries and regions, which follow principally different, e.g. from the American ones, social and cultural values[30].

It is obvious that current «local» conflicts and wars, as well as international terrorism have both visible and latent not only socio-economic, but also religious and ethnic inter-civilization origins and will have solutions and consequences of a global nature. Therefore, the problems of inter-civilization cooperation become the most important and yet most difficult to solve. According to Y. Pavlenko, current confrontation breaks of humanity usually occur at the turn of civilizations

[30] The success of the USA, incidentally, is not only in the forefront of science, up-to-date technologies and innovative business, but also American culture, which is «somewhat primitive» (according to H. Kissinger), but so attractive to millions,. The concerns of the American family and religion, which remain the most important institutions of society, seem quite exaggerated. In addition, American society is the most organized in solving any kinds of national problems — from the problem of smoking to that of space.

(Balkans, Caucasus, Palestine, Syntszyan-Uyhuriya, Tibet). In general, the sociocultural challenges of the 21st century are manifested by increasing contradictions and tensions between social strata and groups not only on property, but also on religious, ethnic, clan, regional and civilizational grounds. Significantly, China, India, Russia, i.e. the states belonging to fundamentally different civilizations could stand alongside the USA, the European Union and Japan, the most influential countries in the world. Prognostic and convincing are the assumptions that the dual process of the gradual loss of vital forces and a change in the configuration of the world will be predominant, rather than the acceleration of economic growth and convergence, which means that the gap in the first quarter of the 21st century between «winners» and «participants with no chance of winning» will increase: the USA will leave the European Union and Japan ever further behind. Russia will fall away and China could become the unreachable «Asian tiger» (E. Smith, 2004).

Islamic countries are becoming more influential, in view of their geo-economic importance, population and Muslim communities worldwide and the availability of a strategic resource — oil. The problem of Muslim intolerance to Western unification has deep historical roots, is permanent and is manifested in the opposition of Islam not only to the ideas of Christianity, but also to the universal principles of democracy. The latter, by the way, are discredited also in modern informational medium of countries with a classical democracy. Most researchers quite reasonably associate the development of a political democracy with the growing educational and intellectual level of society and its informatization[31].

At the same time, the unprecedented expansion of media influence on all spheres of life of people and nations (global massmediation, according to O. Zernetska) brings qualitatively new problems and challenges. The redistribution of power is taking place in leading Western countries: the media, personified by powerful mass media companies, is no longer subordinate to political parties, and the latter are becoming increasingly dependent on them. Thus, an information oligarchy is emerging — a new and really powerful «class», capable of «shooting down» the Western liberal democracy which generated it. Similar processes are observed in Russia and Ukraine (electoral PR-technologies) in a somewhat

[31] It is known that secondary education was a key factor in the effectiveness of democratic electoral systems, and significant increase in the stratum of people with higher education has expanded the issues that can be settled by direct voting (referendum). In the advanced information environment, an unlimited number of people gained the opportunity to access pre-election programs, texts of draft laws, diverse analytical information, etc in a timely manner.

exaggerated form. Isn't this the reason why in almost all countries, there is a low level of social trust in political and public institutions, which was especially characteristic of transition economies.

In terms of civilization, it is important to realize that not only «virtual economy», but also «virtual politics», «virtual diplomacy» and «virtual culture» have their roots in the depths of the Internet. Globally organized multimedia companies, through non-economic and non-coercive influence, actually directly inhibit personality and intelligence in the mind of people, while mercilessly exploiting them. The illusion of the lack of limitations, obvious to traditional consciousness, makes a man more free to realize his economic potential, which improves social performance. However, the possibility of unprecedented operational mass media influence on the consciousness, formalizes elective procedures in policy, directs the ordinary citizens to support a particular course of development of states and economic blocks within the «necessary» social and economic ideology[32].

At the same time, «virtual reality», created by ultra-modern technical achievements, does not apparently form the «global culture» predicted by some researchers, as interpreted in the common civilizational sense. In this context, nationalism does not die away, but becomes internationalized (Smith E., 2004 : 121, 125-127).

In response to globalization of the neo-liberal type, the protesting part of many-sided and so far mosaic world society is consolidated, antiglobalization movements are shaped and structured, which both in terms of motivation and organization are uniquely versatile and diverse: from radical conflict to general humanistic. Generally speaking, there is a clear desire for economic equality and justice and the formation of a society of competitive cooperation in the structural component (alterglobalism), rather than competitive struggle. It, in turn, creates an alternative development: the qualitative transformation (removal) of existing mechanisms and institutions of the global market or the creation of a system of global governance, capable of providing «managed» globalization on the basis of law, dialogue, business cultures and civilizations. Alternative neoliberal micro- and macro- development strategies under conditions of globalization are also interesting, focused not on the resistance to its carriers, but on the creation: a system of fair trade, local community currency systems, the voluntary limitation of consumption, a participatory economics and others. It largery refers to alternatives of global corporatism, which Professor O. Bilorus (2001, 2003) particularly focuses on.

[32] This ideology increasingly reflects not the national interests, but those of some oligarchic groups and even odious personalities, self-sufficient (as it seems to them) even in the global environment.

The existing asymmetries of the global interaction of transnational corporations, countries and regions of the world (in practical terms) and the global failure of market fundamentalism (in theoretical terms) cause the obvious need to update the modern market-regulatory system. Thereto, during a study of regulatory problems and the prospects of economic globalization it is important to avoid positive euphoria about the projects of institutional architecture, dominated by traditional actors — multinational corporations and states acting as if under the auspices of international organizations. In this context, economic messianism and the growing financial donations of rich countries and the international organizations created and managed by them, is a rather «weak» reaction to the asymmetry of global neo-liberal type development[33].

1.5.6. Conclusions for Ukraine

Despite the fact that more than ten-year European integration aspirations of Ukraine have so far resulted in the status of EU neighbor that somehow discredited the official European integration doctrine of our country, in the geoeconomic context, in our opinion, there are currently unique conditions for understanding the new quality of European integration and a transition from the policy of European expectations to one of active European actions. The factors and determinants of this transition are summarized in Figure 1.5.

In our opinion, after Ukraine attained the status of a market economy, its entry into the World Trade Organization and signing of the Free Trade Agreement with the EU[34] the traditional (internationalization) integration factors will largely exhaust themselves and the factors of global influence will become more important.

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[33] At first glance, the activities of international organizations seem to concentrate the global regulatory freedom, enable the resolution of global problems by globally instituted means. Even with the recent financial crisis, far from global in nature, such powerful global unifier of world economic development, as the IMF, actually failed. The updated structure of the WTO, which governs about 95 % of world trade flows, just approached the problems of international exchange of services and intellectual property. Despite the obvious long-term efforts of the ILO and other relevant international organizations, the scale of illegal migration has intensified. The new global regulatory initiatives and current credit policy of the USA and the IMF, prioritizing help to poorest countries etc. have so far failed to adequately solve the global problems of poverty and unemployment, while changing the configurations of wealth and power, according to the theory of systems, predicts an era of selective prosperity for some of the great powers, which will be accompanied by increased social injustice, inequality and conflicts (S.Rosefield, 2005 : 265).

[34] Here it is necessary to adapt national standards to EU requirements, upgrade the customs procedures, improve antimonopoly legislation, optimize the external frade in services, especially in the sphere of transport and energy. In the new pragmatic European integration format, Ukrainian-Russian interests may finally harmonize, needless to say, on condition of the all-civilization orientation of Eurasian ambitions of Russia.

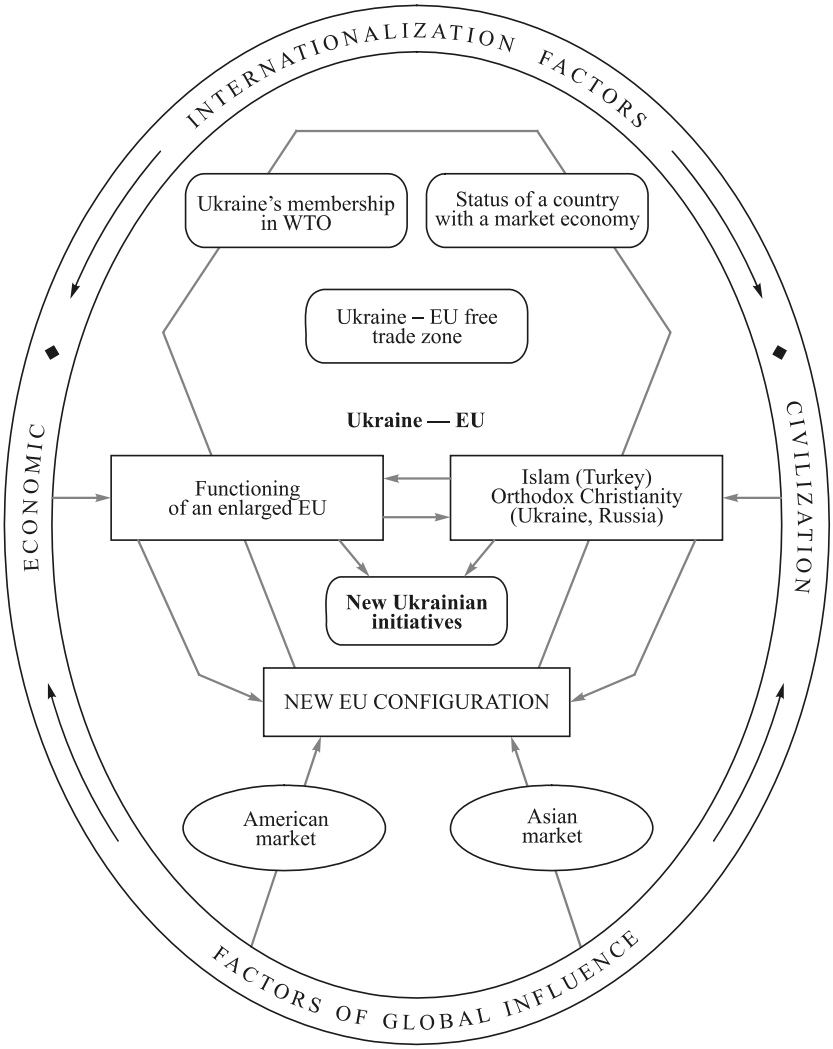

Figure 1.5. Determinants of European Integration Expectations and Actions of Ukraine

In the medium term, two interrelated processes are critical for the European integration prospects of Ukraine. Firstly, from the economic point of view, the new Ukrainian integration policy should take into account the peculiarities of the functioning of the enlarged European Union, considering not only the scale of enlargement (an unprecedented

number of countries), but also its quality, because it is necessary for countries that are not self-sufficient in the market and with a different socio-economic mentality, to adapt to the European environment[35]. Secondly, in terms of civilization, the solution of the problem of accession (non-accession) to the EU of Turkey will be crucial. If positive, Ukraine and Russia can get the most tangible signal of European integration with the changing of the priorities of quite a firmly established system of European views and preferences.

New Ukrainian European integration initiatives should be based not on the contemplation of these processes, but on the prognostic estimates of the varied consequences of their development. In general, a new configuration of the European Union seems very likely as a response: on the one hand, to the European integration claims of neighboring countries (political and economic borders of the EU with a traditional ideology and regulatory instruments, discrimination and exceptions are treated by them as unreasonably violent in a democratic civil society); on the other hand, to the growing competitive pressure of American and Asian-Pacific markets (as a universal integrational community, the European Union should not turn into a «European fortress» on the near and distant borders of which, new confrontations are provoked).

In general, the modern international policy of Ukraine should focus on the positive aspects of European integration — the openness and global competitiveness of the European Union, its willingness and ability to confront new challenges and crises, solidarity with economically less developed countries to share progress. Obviously it is formed and implemented in an environment that is complicated by the influence of objective and subjective internal and external development factors[36]. To overcome their «blocking» effect, our country's well-prepared and ambitious EU strategy, directed towards full EU membership is required more than ever before. Equally important is social European optimism and relevant social consolidation — political, economic and spiritual. If in political and economic spheres the inconsistency of state-corporate interests is of a generally understandable origin and nature, the socio-mental component of European integration throughout the years of

[35] No wonder that recently, requirements regarding the necessity to take the «absorptive capacity» of the European Community and enlargement policy reform have been activated in the European Parliament (European Economic Area Plus).

[36] According to Ukrainian experts (Common European Economic Space, 2007, p. 463-466), the prospects of Ukraine's further European integration will depend primarily on the internal European factor — practical formal rejection of EU expansion (after Bulgaria and Romania) without the determination of the European Constitution (statements of J.M. Barroso and A.Merkel), when the Ukrainian question is not a priority for the EU with recommendations to focus on internal reforms and the consistent implementation of the «Ukraine — EU» Action Plan.

sovereign development of Ukraine is overlooked, not only by national business and political establishment, but also by the intellectual one. However, these issues are relevant only in a broader civilizational context, because Ukraine's European choice is, in fact, the choice of prospects in a globalized world.

1.6. An Analysis of the Similarity of Polish and Ukrainian Economies according to Changes in Labour Productivity

1.6.1. Introduction

Growth is a natural feature of economies, but this statement requires further theoretical study. The nature of growth is multifaceted, but the main thing is what grows and how fast? The thing that can grow by nature is the capital of natural, material and human resources serving, as an abstract category, which can nevertheless be measured. Capital by means of labour is concentrated in human resources and material assets. Hence it follows that the economic growth of states should not be considered one-sidedly, relying only on a selected indicator. If, for example, the population of a given country migrates for domestic and financial reasons, it describes the growth of GDP as a single measure, as additionally changed property relations (foreign capital and investment) — i.e. most likely it is prank propaganda in favor of a future political option in power than an objective evaluation. Economic activity is based on man's ability to perform work and, therefore, the possibility to devalue human capital is the main reason for which the problematics of growth may be considered.

It is clear that state economies can grow at different rates and show proximity or divergence in some indices. The following theoretical considerations vividly show the correlation of the universal productivity factor and economic growth estimates, taking into account the consistency of remuneration with the cost of labour, corresponding to the law of human capital movement. This coefficient comprises a share of the actual GDP of the amount of labour costs and shows the value of product per monetary unit of labour costs. The parity of labour productivity is also the main factor resulting from currency fluctuations, and it can therefore be stated that there is a possible proximity of labour productivity indices in the economies being compared. Parity of equilibrium can be reached in case of adequate results in respect of contributed capital, such as those in Germany, the USA, Ukraine, France, Japan and others. Clarification of the nature of capital and currency fluctuations is a direct reason for the research.

1.6.2. Capital as a Synthetic Measure of Economic Growth

Speaking of growth, it is necessary to clearly identify its driverss. Given the intensification of economic globalization, GDP value is often regarded as the main criterion of growth. When many young people look for jobs in other countries, it means that they do not have work in their country, and that labour costs in it are too low. Under such conditions, foreign enterprises obtain so-called labour investment, instead profit derived by investors will not necessarily be used on the territory it came from. There is also a general question. What exactly increases in the economy and what is its source? Is it assets or human resources that grow? We would like to note that the first and the second bear the risk of rapid devaluation. There may be only one response to these questions: growth can pertain to capital or the ability of abstract talent to do the work. This figure increases when old machinery is replaced by new, improved machinery, or by the relevant training of employees, which increases their intellectual capital. When the environment is more favorable for life and work, when infrastructure enables work to be done better and cheaper, it naturally promotes the growth of capital, the overall ability to perform work and use natural, human and material resources effectively.

The economy can be treated as the result of restructuring capital, consisting of human, material and natural resources. In addition, capital also restructures itself, since it strives for an optimal composition in a given condition, and its structure will optimally match the capabilities of its multiplication, which, oddly enough, is contrary to the natural phenomenon of spontaneous diffusion. It is also worth asking the question about the sources of capital growth. Where does energy and the ability to work, which do not arise from anything, come from, according to the first law of thermodynamics? The answer is simple. Energy comes from the Sun that every second converts 700 million tons of hydrogen into 695 million tons of helium, i.e. expends 5 million tons of its mass, which is transformed to radiation energy in fusion reactions (Arnett B., 2006). The mass of the Sun is 99.8 % of the mass of the Solar system, so the consumption process is almost unlimited. A small percentage of solar radiation reaches the Earth, where assimilated thermal energy is the basis of photosynthesis. Every source of energy, other than nuclear, start from the Sun. In addition, it is known that the Sun is also a source of psychological energy needed for the regular functioning of the human psyche.

With a constant flow of energy from the Sun, which stimulates and enables the development of life on Earth, the economies of states reach smaller or larger growth. Social and economic processes can be viewed as

a game with a non-zero sum. In this game, all the participants can win, unlike games with zero result, where the consequences of the activities of the players are inversely proportional. Therefore, mankind can thrive in the economic and social sense, natural, human, material capital also grows, although the history of economic development has seen many failures. G. Wright wrote (2000 : 13): «*Do not think that playing with a non-zero result always ends in a win — win, not defeat — defeat. It is not that the strong and treacherous do not use the weak and naïve; this kind of parasitism is possible in games with a zero result, after all, history has many examples of this. But in the long run, when everything is taken into account, situations with a non-zero sum will create more positive than negative results, more mutual benefit than mutual loss and exploitation ...»*

Economic activity is based on the human capacity to perform work, thus the prevention of the devaluation of human capital is the main condition to consider growth conditions. The theory of human capital and remuneration, which is adequate to the cost of labour, is an instrument of dynamic balance between «capital and labour» in the traditional interpretation of the category «capital». Therefore, economic balance shall ensure the preservation of human capital by determining hourly remuneration. It is possible to achieve this state by applying the known theories of human capital (Cieślak, Dobija, 2007; Kozioł, 2005; Kurek, 2007).

In this context, capital is the abstract ability to do the work, so this category, borrowed by us from physical sciences, is identified as energy. By the way, physical sciences often serve as a model for other sciences that seek to clarify the nature of reality. Physical theories, epistemological views of physics theorists comprise the standard, which scientists working in different fields of economics try to approach. This situation has long existed in economic sciences. As Myrovski (1989 : 224-225) notes, researchers like T. Veblen, W.S. Jevons, J. Fisher, W. Pareto, L. Walras and others treated value and utility only through the prism of the physical understanding of energy, and mechanical understanding was recognized as a model for economic sciences (mechanical thinking turned out to be completely wrong.) V.S. Evons wrote that the concept of value in our science is what energy means to mechanics. In 1926 J. Fisher published the table of the correspondence of physical and economic categories (Mirowski, 1989 : 224-225). In his understanding, energy is the equivalent of utility, which is right, because utility is the ability to do work. Cost is the concentration of capital in an object, thus, it comprises a smaller or greater ability to do work. Nevertheless, the above economists failed to clarify the nature of capital more deeply. Combining capital and cost with energy, they could not find appropriate analogies between the parameters that control energy, which are defined exactly in physical

sciences, and the category of capital — in economic sciences. Nor did they find the correct interpretation of the law on thermodynamics with regard to economy. In view of the above, the renowned scientist, C.J. Bliss (1975 : VII), who studies the theory of capital, notes that «*when economists reach common ground as regards capital, the resolution of other issues will only be a matter of time*». However, he acknowledged this possibility as unlikely.

Another well-known law of thermodynamics, which is the fundamental law of physics (Atkins, 2005), is reflected in economic sciences in its most direct version — the phenomenon of the spontaneous diffusion of starting capital cost. This principle is limited to the recognition that cost decreases in time naturally if rational countermeasures are not taken. In other words, there is a phenomenon of natural losses, which is manifested not only through capital assets, but is related to everything that exists. This natural loss is also the source of: firsty, uncertainty, and secondly, profits if in conditions of this uncertainty there is a deliberate action and exchange in the free market. Under these particular conditions the value called «risk premium» arises, which is offered by the market to the participauts of exchange, in order to compensate the natural loss. Given that the loss is random rather than deterministic in nature, a market participant can minimize it, which presents the possibility of gaining profit. As we see it, the interpretation of the second law in economic sciences is quite specific to them, and is not based only on the achievements of physics. There are many examples of the identification of physical formulas in economics. The value of the capital market known as risk premium has long been considered as economically unchanged (constant). Many studies show that risk premium amounts to 8 % of starting capital (Goetzmann, Ibbotson, 2005; Dobija, 2005; Cieślak, 2006; Kurek, 2007).

As follows from the works of the above-mentioned authors, the model of capital during time t is defined as the product of three elements: a variable s, which determines the natural loss of starting capital, a fixed premium p ($p = E(s)$), E — the designation of the average cost of levelling loss, which is supported by the market under the terms of market exchange), as well as management variable (Z), which can restrain the natural loss or diffusion of capital. In t years, capital has the mathematical form of interest, but the definition of the interest rate structure also follows from the model.

$$C_{t,s,p,Z} = C_0 e^{-st} \cdot e^{pt} \cdot e^{Zt} = C_0 e^{rt},$$

where $r = -s + p + Z$, $p = E(s)$; t — number of years, $t = m$ — time measured in years; r — applicable annual interest rate. The rate r can be presented as $r = p - s_a$, where s_a is the amount of actual losses.

Sources of profit can be defined based on the capital model. This profit is regular, so starting capital will increase within a year to:

$$C_1 = C_0(1 + p - z) = C_0 + C_0\,(p - z), \text{ where } z = s - Z.$$

Thus, regular profit or loss is identified by the following formula

$$\text{Financial result} = \Delta C = C_1 - C_0 = C_0 + C_0\,(p - z) - C_0 = C_0\,(p - z).$$

It appears that the sources of regular profit are: action (capital per year), direction that reduces the natural loss of capital and risk premium. This formula also identifies the limits of useful profit, since the value p is constant. The interpretation of the profit formula shows vividly that management is particularly focused on controlling risk costs and their reduction to save most of the risk premium. Realizing that an effective market guarantees exchange according to the value or each contractor (employees, suppliers) receives equivalent of energy in exchange, it can be stated that profit arises from risk control.

The amount of the profit of business entities allows setting a degree of capital growth. The ROE coefficient (return on equity, E — own capital), calculated on the basis of financial statements leads to the formula of collapsible percent, which identifies the capital growth rate. If ROE is the average rate, which is unchanged over n years, we can state the following relationship:

$$ROE = \frac{\Delta E}{E_0} = \frac{E_1 - E_0}{E_0} \Rightarrow E_1 = E_0(1 + ROE)\,.$$

Thus, in n years:

$$E_n = E_0(1 + ROE)^n\,.$$

The situation seems optimistic, when the running of the economy results in a rapid growth, according to the corresponding formula of compound interest. This growth is used by all contractors of an enterprise: creditors, owners, employees, government agencies, banks and others. The usefulness of workers is known to be subject to due remuneration, or the adequacy of wages and labor costs. This issue is solved by the capital theory, which allows the measurement of the human capital of an employee and the determination of the remuneration, which guarantees each employee necessary insurance in case of the depreciation of his human capital.

1.6.3. Human Capital and Adequate Labor Costs

The correct evaluaton of capital as an abstract ability to perform work naturally ties this category to the categories of labor and labor costs. It is well known that the definition of the process of labor and labor costs are still far from perfect in economic sciences. This is due to the absence of physical analogies, as in physics, the nature of work is clarified better in the general and specific method of its measurement, however labor is also based on active energy.

Let us note that for a man to be able to work, he must have some initial energy, i.e. his human capital as the ability to do this work. For example, a teacher has collected intellectual capital that is the source of the implementation of an educational process or transfer of knowledge to students. Knowledge transferred to students is gathered and being concentrated, increases their intellectual capital. The same happens when a shoemaker makes shoes; his human and intellectual capital are concentrated in the products of his labor.

The physical and mathematical description of labor can be presented using the category of scalar product of the force vector and shift vector (Kurek, 2004 : 43-46; Dobija, Kurek, 2005) that can be shown using the abovementioned equation:

$$L = \vec{F}_0 \, \vec{s} = \left(\vec{F}_0 \, \vec{v} \right) \cdot t = \left(F \cdot v \right) \cdot t \cdot \cos\alpha = P \cdot t \cdot \cos\alpha \,,$$

where L — is the scalar of mechanical work; F — vector of acting force according to the direction of movement; s — shift vector (the course passed by the object of the application of force); $F_0 s$ — scalar product of the force and shift vectors; v — vector of the speed of shift; t — time used to complete the work; F — scalar of force; v — scalar of speed; $cos\ \alpha$ — cosine of angle alpha between the direction of force and the direction of movement; P — scalar of force.

In the economic description, the key category of force is applied (P), which we call productivity of labor having a full economic interpretation in theory and practice. In the economic interpretation, the equivalent of the unit of force is the coefficient of the force of an employee, called the coefficient of labor productivity. Time, in terms of physics, corresponds to the working time of the employed worker. The coefficient of cosine α in the economic interpretation takes the form of the coefficient of the social utility of the work performed. The result of applying the above analogies and their economic interpretation is the equation for identifying the cost of the employed worker's labor, which may be presented in the following form:

$$\text{Labor costs} = \text{Worker's coefficient of productivity} \times \\ \times \text{Time of work} \times \cos\alpha\ .$$

It is well known that in physics, force, e.g. the power of an electric current, is identified by the standard unit called W, which allows the recalculation of the time of work per unit of labor. In a practical economy there are recalculations that enable the conversion of the time of labor of the employed worker into the number of units of work, or costs of his work. This recalculation is clearly defined through the current system of remuneration. If payment rater has, say, fifteen accounting positions and a particualr employee has, up to the seventh position, his performance ratio is 1/7. If an employee worked 210 hours a month, the costs of his labor comprise $1/7 \times 210\ h = 30$ units of labor (er). If we assume that this employee earns 3,000 (zloty) (zł), then according to 30 er = 3,000 zł it follows that 1 zł = 0.01 er, so the zloty also serves as a unit of labor. There is no other method of measurement, because the employee gets a certain number of zlotys.

The coefficient of social utility (cos) identifies the coordination of the work performed and the expectations of the employer, in a broad sense — of the society where a man lives and works. This coefficient is within the range between minus one and one, bilaterally closed. The work, which corresponds with accepted standards, performed by a competent employee within the action plan of the organization, comprises work with a coefficient equal to one. Incompetence and diversion should be evaluated by a coefficient of minus one.

Let us assume that the employee worked, doing work of public utility for 280 hours with a productivity characterized by the fraction 3/5. Thus:

$$\text{Labor costs} = (3/5) \times 280\ \text{h} \times 1 = 168\ \text{er},$$

i.e. this employee spent energy equal to 168 units of labor. The same applies to his consumption of energy, as did the increase of food cost, and this value determines the appropriate remuneration. Maybe he will get more on account of another employee, who will be paid less, or due to growing inflation. Let us note that this applies to every employee, not only a manufacturer, but also teachers, doctors, civil servants or bank managers.

The general model of capital becomes a model of human capital, because capital attributed to a person is his/her property during its appearance, from birth to the beginning of work, all kinds of costs and possible losses burden parents or society, and not the owner of capital. For each person, the amount of capital, with the exception of creative capital, is only defined by the necessary expenses, such as funds for support and education, risk premium, etc.

Human capital is vividly described by the following formula

$$H = H_0 e^{pt},$$

where H — is human capital, H_0 — flow of costs for a definite period, when this capital appears. The specifics of cost flows and the determination of the functions that increase capital as a result of the accumulation of experience, results in the already proven model of human capital (Dobija, 1998, 2000).

The sum of this value is identified by the following formula

$$H(T) = (K + E) \cdot [1 + Q(T)],$$

where $H(T)$ — is the cost of capital attributed to the person with the experience of T years of work; K — capitalized maintenance costs; E — the capitalized costs of education; $Q(T)$ = factor of experience growth in T years. The experience factor is expressed by the function of time (modified learning curve):

$$Q(T) = 1 - T^{\frac{\ln(1-w)}{\ln 2}},$$

where w — is the coefficient of learning; T — years of professional work, $T > 1$. According to the above, the employee, who will perform the same work next year, will do it easier and cheaper.

Based on the model of human capital allowing the measurement of the potential employee's ability to perform work, it is possible to define the basic formula for the remuneration of labor. In this case we use the equation of **degree of labor costs per year**. It has the following form:

$$H(T) \cdot (1 + r) = W + H(T + 1),$$

where W — is annual labor cost; r — the rate of capital increase. Hence we get the basic model of remuneration:

$$W = H(T) \cdot r - H \cdot [Q(T + 1) - Q(T)] = H(T) \cdot r - H \cdot \Delta Q(T).$$

It follows from this model that remuneration is to be determined by the percentage (r) of an employees' capital, but during the first years of work, the employer may hold back remuneration, given the fact that the employee is acquiring experience through work. The value $H \cdot \Delta Q(T)$ reflects the experience gained in the process of work, and decreases rapidly over time T. However, the experience gained increases the

employees' capital, and in the following year, he can count on relevant compensation. Practice confirms that the variable $\Delta Q(T)$ significantly affects the compensation of persons who just begin a professional career, and disappears over time. However, the decisive influence still has the first element, which is the essence of the theories of payment based on the value of human capital, which explains the difference in earnings by different values of accumulated capital. We have the product $H(T) \cdot r$, where the percentage of return r is equal to the risk premium p. The basic payment $p \cdot H(T)$ balances the risk costs, thus, the employees' capital does not depreciate. In the work process, there is a transfer of capital of the employed to the products of labor, i.e. there is the concentration of human capital that increases the value of products. In the process of work, human capital expenses are expressed as labor costs, which coincide with the assets, creating end products. Examples of the evaluation of human capital and basic payment are clearly presented in Table 1.5.

Table 1.5

APPROXIMATE BASIC SALARIES OF PROFESSORS AGED ABOUT 40*

Values	Poland	USA	Ukraine
Number of years of capitalization of cost maintenance	25 years	28 years	23 years
Costs per month	500 zł	USD 400	UAH 400
Number of years of capitalization of cost for a professional education **Poland** (Master's degree — 5 years + Candidate of Sciences 5 years + Doctor of Sciences 5 years = 15 years) **USA** (Bachelor's degree 4 years + Master's degree 2 years + Candidate of Sciences 4 years = 10 years) **Ukraine** (Bachelor's degree 4 years + Master's degree 1 year + Candidate of Sciences 3 + Doctor of Sciences 5 = 13 years)	15 years	10 years	13 years
Education expenses per month	350 zł	USD 850	UAH 200
Years of professional work T	15 years	16 years	17 years
Parameter of education	10 %	10 %	10 %
Percentage of insurance at university	20 %	15 %	35 %
Capitalization coefficient	73.1059 zł	USD 95.3388	UAH 60.89329
K	438,635 zł	USD 457,626	UAH 328,824
E	114,039 zł	USD 147,763	UAH 51,589
Percentage of experience $Q(T)$	35 %	35 %	32 %

Table 1.5, continued

Values	Poland	USA	Ukraine
$H = K + E$	552,674 zł	USD 605,389	UAH 380,413
$H(T)$	746,110 zł	USD 817,276	UAH 502,145
Annual labor costs $W = 0{,}08 \cdot H(T)$	59,689 zł	USD 65,382	UAH 40,172
Monthly labor costs (:12)	4,974 zł	USD 5,449	UAH 3,348
Payment withoyt insurance	**4,145 zł**	**USD 4,738**	**UAH 2,480**
Annual payment without insurance	49,741 zł	USD 60,077 **	UAH 29,757
Evaluation payment per month	**4,250 zł**	**USD 5,300**	**UAH 1,200**
Decrease in payment	–	–	UAH 1,280

***** The calculations listed in the table may cause many discussions. In our view they are quite appropriate (*Note of scientific editors*)

****** It would be wrong to compare payment using exchange rates, as evidenced by this example, which also outlines the relevant method of the comparison of remuneration of labor.

Source: own calculations.

Let us note that maintenance costs are the maximum permissible levels required for the restoration of human capital. The overall Polish minimum rate was calculated at about 400 zł per person per month in a family of five persons and the rate increased for the city, which respectively accounted for about 500 zł. The actual payments in this professional group range in the USA from USD 55,000 to USD 80,000. The lower is usually reached by university lecturers with doctoral degree, which are traditionally in high demand, e.g. in the field of English. A higher level of remuneration is formed by market conditions and the level of accreditation of a higher educational establishment. However, the above-mentioned level is nevertheless dominant. Let us note that the salary of a professor in Poland, who has a doctoral degree, should vary between 3,270-7,000 zł at the rate of the overall Polish rater set on December 28, 2006.

Table 1.6 provides a comparison of legal minimum payments in the listed countries with minimum payments to the people with no professional experience, i.e. those who have just completed their education.

Table 1.6

AN ANALYSIS OF MINIMUM SALARIES BASED ON THE MODEL OF HUMAN CAPITAL

	USA (t = 17)	Poland (t = 18)	Ukraine (t = 17)*	Great Britain (t = 18)
Maintenance costs	375—425 USD	450—550 PLN	380—420 UAH	275—325 GBP
Value of human capital *H*	162,001 USD	224,701 PLN	162,001 UAH	134,820 GBP
Annual labor costs (H. 8 %)	12,960 USD	17.976 PLN	12,960 UAH	10,785 GBP
Monthly labor costs	1,080 USD	1,498 PLN	1,080 UAH	899 GBP
Mandatory minimum payment	5.50 USD/hour	936.0 PLN/month	400 UAH/month	5,05 GBP/hour
Monthly payments for work at minimum wages	5.50 USD 176 = 968 USD	936.0 PLN 1.20 = 1,123 PLN	400 UAH 1,366 = 546 UAH	5.05 GBP 171= 863 GBP
Difference between the actual mandatory payment and payment arising from the value of human capital	90 % 100 %	75 %	51 %	96 % 100 %

* Data on maintenance allowances in Ukraine were submitted by the Candidates of Sciences Olena Voynalovich and Catherine Romanchyk of the Zhytomyr State University, January 23, 2007.

Source: own calculations.

Regarding the USA it should be noted that the state minimum payment currently amounts to USD 5.15 per hour, but many states raise this minimum, even up to USD 7.0 per hour. In the future, the raising of the state minimum is not ruled out. It should be noted that such payment is based on the evaluation of human capital. The situation in Ukraine is similar. All calculations show that the Western countries with a capitalist democracy apply minimum payments based on the theory of human capital, i.e. in economic terms an employee's capital is protected. These standards are not followed in Poland and Ukraine, and in Ukraine — to greater degree. In these countries' employee's capital declines, and energy transferred to work is not compensated sufficiently by remuneration. Therefore, there is migration activity to the West, where an

employee can expect reimbursement of expenses of his energy in the process of work, or higher remuneration. The states that do not compensate for the cost of labor do not use the standards of Western countries in their socio-economic relations.

1.6.4. The Nonparametric Function of Production and the Economic Growth Model

It is known that the function of production shows how production factors are arranged to create a product. Even Adam Smith presented the growth model in the form of a production function: $Y = f(L,K,T)$, where Y — is the product, L — labor resources, K — capital and T — land. Thus, the increase of product is caused by the increase in the human population, capital investment, land resources and overall labor productivity. Such general considerations are the basis for the classical growth theory, modified by the authors named below. Philip Wicksteed (1894) proposed the function of production for welfare (y) in a general form $y = F(x_1, x_2, ..., x_m)$.

The production process ending in the market exchange of product for money can be represented using the function of many variables, given the fact that production factors are summarized in the product according to the principles of the calculation of costs. Then the choice of variables to the model will be clearly defined and will not be identified with capital assets, or the property contained in them to do the work, instead the natural loss of natural capital will be taken into account consistently. There is another approach that is more popular in economic sciences. Econometric models, which are called the functions of production, such as the Cobb-Douglas model or Soln model (Romer, 2000, p. 23-53), differ as production factors in them are measured in natural rather than monetary units.

This approach does not take changing consumption into account, which does not reduce value, as believed by classics, but is an integral part of human capital. In this sense consumption allows the support and increase in the value of human capital. However, the destruction of capital is brought about by the arms race, war and natural disasters. Thus, destruction covers the capital contained in natural, material and human resources.

As a starting point to describe production processes let's take the function of production, which characterizes production in market selling prices as the sum:

$$P = K(1 + r)\ (1 + I),$$

where P — is the annual production in selling prices; K — costs for organizing production; r — level of profit, $r = P/K$ — 1; I — level of

profit above the average. Variable I appears when the enterprise has intellectual capital. Production cost factors include W — labor costs, KP — other costs, caused by technology and the management process, KR — accidental, higher than average costs of risk, therefore $K = W + KP$ — KR. After calculating these dependences, we can write the formula

$$P = (W + z \cdot A - s \cdot A)\,(1 + r)\,(1 + I),$$

because $(W + KP - KR) = (W + zA - sA)$, where A — assets in current balance prices, $z = KP/A$ — the coefficient of annual asset turnover, $s = KR/A$ — loss of assets in production processes.

After conversion, the cost of production is as follows:

$$P = W{\cdot}[1 + A/W \cdot (z - s)]\,(1 + r)\,(1 + I).$$

Labor costs W are a derivative of human capital, hence $W = uH$, where u — is the degree of payment of human capital, and H means full value of employed human capital. After substitution we obtain the model:

$$P = W{\cdot}[1 + A/H \cdot (z - s)/u\,]\,(1 + r)\,(1 + I).$$

Values r, s, I — are small, close to zero, so using an approximate equality: $1 + x = e$, the function of production can be expressed by the following formula

$$P = We^{r+I}\,[1 + A/H \cdot [(z - s)/u]\,] = W \cdot WP,$$

where WP — is labor productivity, defined as labor costs multipled by the identifying cost of production, and at the same time it is a value of production per monetary unit of labor cost. Thus, we obtained a functional correlation in the form of nonlinear dependence between the system of six variables and the production expressed in market prices.

Attributing the above formal description of production to existing models of economic growth represented by M.G. Woźniak (2004, p. 126 — 147), we can say that this model is multifactoral, which would indicate the formula $P = W \cdot WP$, because labor productivity WP — is a function of six variables, especially of the technical equipment of labor A/H, the rotation of assets, etc. It is worth noting the place of remuneration of labor on the scale (u). This variable is in the numerator, because $W = uH$, and in the denominator, which indicates that its optimal value exists. Knowing that u = 0,08 and determines basic payment, you can find the expedient amount of the premium fund as proposed by W. Kozioł (2005). The analytical function of production

may be, in addition, the instrument of causal economic analysis in the application of differential calculation.

Based on the function of production, it is possible to introduce the model of production with the synthetic control variable *M*. It takes the following formalized form:

$$P = W \cdot WP = We^{r+I}\{1 + \frac{A}{H} \cdot \frac{z-s}{u}\} \cong W \exp\frac{A \cdot M}{H}.$$

Variable *M* integrates the effect of all previous variables, marked by small letters, i.e. rotation (*z*), degree of remuneration of labor (*u*), costs (*s*), profit (*r*) and intellectual capital (*I*), if such exists. These variables are connected with the current decisions of management. According to this model it is possible to calculate the variable of control *M*, selecting human capital *H* from the dependence $L = p \cdot H$.

$$P = W \exp\frac{p \cdot A \cdot M}{L}, \text{ hence } M = \frac{L \cdot \ln(WP)}{p \cdot A},$$

where *W* — is labor costs, and *L* — permanent labor costs (basic payment). As follows from the last formula, the variable of control is proportional to the logarithm of labor productivity and inversely proportional to capital intensity measured by the coefficient *A/L*.

Now it is possible to connect the formula of capital growth with the model of production to obtain one synthetic model of changes influencing the growth of capital. Assuming that $Z = \alpha \cdot M$, α — scale parameter, we obtain the model:

$$C_t = C_0 e^{Zt} = C_0 e^{\alpha M t};$$

$$C_t = C_0 e^{\frac{t \cdot \alpha \cdot L \cdot \ln(WP)}{p \cdot A}} = C_0 \cdot WP^{\frac{t \cdot \alpha \cdot L}{p \cdot A}}.$$

Interpreting the last formula, we can say that to achieve a high capital growth rate the following is needed: action (capital multiplied by time), labor with high productivity (the composition of six variables) and the relevant assets that meet the proper technical equipment of labor. We agree that the employees should be properly paid, but not too highly, in order to keep productivity high. Risk premium (*p*) reminds us that fair payment is determined by the value $p = 0.08$.

1.6.5. Labour Productivity as an Equation: the Exchange of Money for Products

In terms of the whole economy, the product made and sold, is nothing like GDP, so this feature can be put in the basis of macroeconomic research. In this presentation, labor productivity means how many zloty of GDP fall per monetary unit of labor costs. As it turns out, this value has the main influence on the exchange rate.

The following model of commodity and money flows (Figure 1.6) shows that payment is determined by the flow of money that is synchronized with the flow of goods during exchange in the free market. These two flows can be determined quantitatively through the relevant function of production and the function of money formation, and then to hold their market comparison.

The nature of a commodity-money economy, and comparison of two flows, the source of which is human capital and the measure of which are labor costs, is shown in Figure 1.6, according to which labor is comparable with assets (the function of production) that creates the product. Finally, it is assessed at the market exchange of product for money. At this stage, the final cost of funds is also established, i.e. wages for work that is connected with the creation of product. The figure shows that human labor generates two flows simultaneously. Work product used during labor, is the component of labor, costs of labor and assets, i.e. materials, instruments and machines. On the other hand, the same labor costs comprise the wage of a worker. These payments may be presented in the form of entry onto a bank account or be available to a worker in the form of banknotes. In each case a worker will change it for goods according to his/her needs and the available amount of payment for the work. It follows that work gives money, and skillfully organized productive work creates wealth. The more job offers a country has, the more money is accumulated in its banks[37].

Realizing that the market mechanism reimburses the cost of product and money flow that is the essence of the market, based on Figure 1.6, it is possible to write down a polynomial equation, or the **payment equation of exchange**. It has the following form (*PKBR*[38] — actual *PKB*, *WP* = *PKB/W* — labor productivity, *RWP* = *PKBR/W*, *W* — labor costs, *i* — rate of inflation, *WK* — function of money receipt in banking system):

$$PKB = PKBR \cdot (1 + i) = W \cdot WP = M_K = W \cdot WK.$$

[37] In view of the above we should consider quantitative theories, the surplus of which, provokes inflation. This is a result of the inconsistency of payment and cost of labor. Excessive amount of goods for military purposes (not for sale) also reduces payment and ultimately increases inflation.

[38] The author uses Polish abbreviation in the following formulas, where *PKB* is GDP, *PKBR* — real GDP. (*Note of editors*)

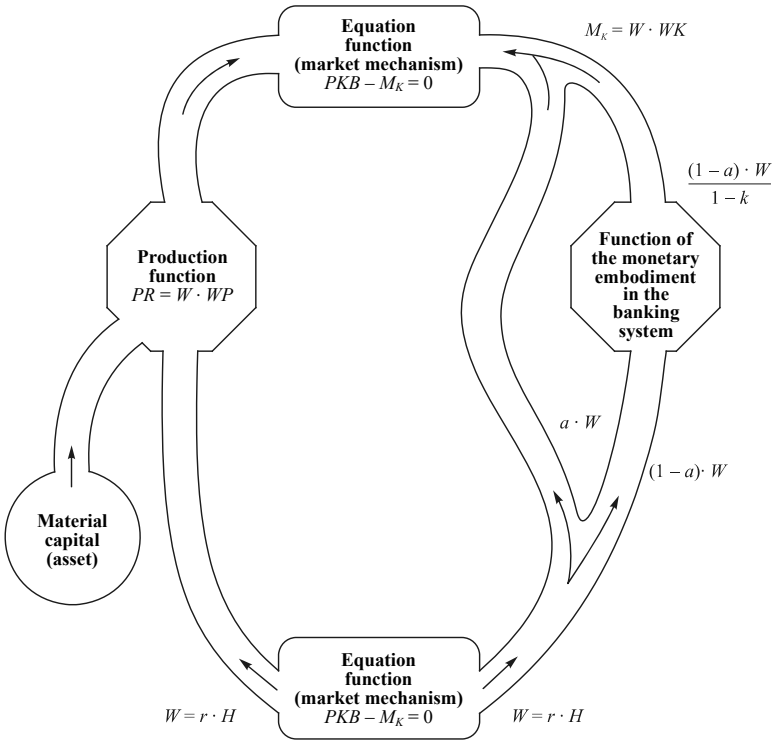

Figure 1.6. The Market as a Mechanism
that Recovers the Cost of Product and Capital Flows

Source: own study.

Hence is the following equation identifying the essence of inflation:

$$\frac{PKB}{PKBR} = 1 + i = \frac{WP}{RWP} = \frac{WK}{RWP}.$$

In view of the above, inflation depends on actual labor productivity and equals zero if actual and nominal productivity are identical. In addition, obtaining credit funds is determined by the level of actual labor productivity. If $i = 0$, then $RWP = WP = WK$. According to this equation, the direction of actions that stabilizes the economy and purchasing power of money become apparent, and nominal productivity must be equal to the actual one. This situation is achieved under conditions of the

consistency of payment and labor cost, which also manifests itself as a guarantee of order in the economy. It should also be noted that inflation may disappear by itself if no new impulses arise. Let us note that each investment project that does not worsen labor productivity may be granted credit assistance.

Functioning in the existing theory of money and monetary policy (Duwendag and others, 1993), (Galbright, 1982) the **quantitative equation of exchange** consists of the artificial basic concept of the amount of money *M*, circulating at rate *V*:

$$PKB = PKBR \cdot (1 + i) = M \cdot V.$$

This equation shows that inflation is proportional to the quantity of money *M*, thus the raising of the interest rate lowers inflation, since it reduces the amount of money. The concept of the amount of money is completely false and boils down to the accumulation of metal coins as money, like the whole quantitative equation of exchange. It actually appeared as a reaction to the economic consequences of surplus flow of silver to Europe. Silver is a commodity, not money.

If you rely on monetary concepts, it is possible to reduce inflation, but only by destroying the economy. Therefore, the following appeared in the monetarist circles of the relevant phraseology: *overheated economy* (we will cool it), *shock therapy, firm monetary policy* and others. The followers of the quantitative «theory» of money have a wide arsenal of means and many «merits» for «cooling» the economy, i.e. unemployment and lower living standards. The appropriate understanding of a commodity-money economy suggests that inflation disappears by itself if its sources disappear. Distortions and inflation appear only when there is a growing number of people who earn well, but do not produce equivalents of work. Or there is an arms race, or worse — wars, and, thus, the destruction of assets and capital contained in them. Preventing inflation is in line with pay under labor costs.

Remuneration in the system of a commodity-money economy has an abstract view of the record of the transfer of energy spent by a worker to be measured by the number of units of energy or the number of units of work. Such record can be made in the form of banknotes or in a now more popular electronic record on the accounts of banks. In any case the owner is entitled to receive the equivalent in market exchange of his wage, or money for goods. Apparently, money does not constitute «means of exchange», but is subject to exchange for goods. The main thing that follows is: work is a source of money.

1.6.6. Comparison of Labor Productivity and GDP per Capita during the Application of an Exchange Rate

The question of the comparison of international values □□- payments, labor costs and gross domestic product — is an important theoretical and practical problem. We come across this kind of comparison more and more frequently, such as recently in Poland in the case of the protests of nurses and doctors. The evaluation of GDP per capita in euros or dollars is quite difficult. The above complications often lead to different misinformation. Thus, e.g. if a doctor earns in the USA, say, USD 5,000 a month, his colleague in Poland should earn 5,000 • 2.85 zł / USD = 14,250 zł, but earns just 3,500 zł, i.e. four times less. However, this comparison is wrong. To make the right conclusions, the nature of monetary unit, and its dependence on labor productivity must be clearly understood. G. Kołodko (2004 : 188) suggests using PPS (Purchasing Power Standard)[39]. This is an attempt to replace the exchange rate by such value that better corresponds with international comparisons and is an index that prevents distortion when using the exchange rate. The PPS unit is not based on theory, but is supported by the confidence that a comparison of food baskets gives more objective results than using the exchange rate. Only scientific theory can justify whether it is appropriate.

The theory is expected to give explainations and methods for the analysis of empirical data to achieve a comparison in terms of economic value. Relying on the basis of clear theories, you can get more reliable information necessary to make economic and political decisions. False theories lead to false information about earnings, the results of the economy and of course are breeding grounds for some propaganda purposes. In international comparisons the key issue is of currency exchange and its proper use in economic analysis that is a difficult and complex matter. The main issues raised in this regard relate to the cost: how, during the application of the exchange rate, to achieve consistency or the transformation of value, expressed in a specific currency in a contiguous value expressed in another currency. This was expected by scientists when formulating the law of one price that turned out to be wrong, and its falsification was expediated by the product of McDonald's.

The exchange rate is the effect of the market, in which the unrestricted exchange of currencies takes place, if it identifies the numerical value of the monetary unit of one country as regards the value of the monetary unit of another country. It is this and nothing more, because we get money for work and actually it is payment for work, so the value of a monetary unit depends on the results of this work, its productivity and efficiency. The

[39] Purchasing Power Standard. (*Note of editors*)

influence of supply and demand is minor, it only influences the cost of current rates, and the trend of the exchange rate primarily affects labor productivity. However, the exchange rate is primarily the resulting value, it is a synthetic indicator of changes in labor productivity in a specific country. Productivity can increase due to reasonable business decisions, the better organization of labor, the avoidance of work that has no value, thank to favorable conditions, etc., but it can also increase by lowering wages, or at the cost of human capital. In the changes of the free market exchange rate lies information about important processes in the economy. Therefore, no reasonable economic policy can be based on exchange rates in an authoritarian way. If this happens, it means victory for the group the interests of those who benefit from this state of affairs. Society as a whole loses out in this, as evidenced by the examples of Poland in the 1980s, and today — Argentina or Ukraine.

Possibilities for a speculative description of the phenomenon of the market evaluation of a specific monetary unit as compared to another unit only appeared in the 1970s, following the failure of the Bretton Woods agreement. This is a very important moment in economic history, because then market forces broke the bonds that arose from the erroneous convictions of politicians and leading scientists about money, that the free market had to be restrained and money had to be managed in each case. It should be noted that it was alleged by politicians and economists who proclaim and glorify the free market. R. Mundel is undoubtedly one of the epigones of such views. This scientist, Nobel laureate, gave lectures in Krakow and Warsaw, in which he recognized the free market exchange rate as impractical and disseminated the opinion on the need to manage exchange rates by central banks[40] (Mundel, 2000a, 2000b). In his statements, R. Mundel completely omits the Japanese experience of productivity growth and sees no connection between labor productivity, money and rate, and while mentioning this connection wants to limit market forces as soon as possible. The question arises, what for and for whom: can exchange rates not be correctly determined by the free market?

Since 1973 exchange rates have been determined by the market, i.e. conditions emerged for serious scientific research and the subsequent variation of the exchange rate theory, particularly since the expansion of McDonald's constantly supplied data from around the world to falsify the law of one price (Pilbeam, 1998; McDonalds, 1999). The free market exchange rate emerged as the main source of information about the

[40] «...Because the dollar and euro areas have each achieved monetary stability, large changes in the exchange rates are real changes, both unnecessary and damaging. The same could be said of the dollar — yen rate, whose fluctuation over the past 15 years have caused a lot of havoc, particularly in the Japanese economy...»

economy on the international level, and its lack of transparency in a particular country meant the existence of a curtain behind which dark political forces make profitable manipulations against one another, usually at the expense of society. Manipulation of the rate in a country opens the way to various manipulations in international comparisons, as described by Z. Hellwig (1997), showing how Poland was growing in the world exchange rates after the transformation in 1989, despite a falling GDP.

To come to a new theory, identifying the formal relationship between the exchange rate and labor productivity, we assume that *PKBR* — is the GDP in prices of the last year (real), and *W* — costs for GDP formation. *RWP* = *PKB/W* and means actual labor productivity. In addition, index *P* means Poland, and index *A* means the country with which the comparison is made.

$$PKBR_P = W_P \cdot RWP_P$$
$$PKBR_A = W_A \cdot RWP_A$$

Let's make a proportion:

$$\frac{PKBR_P}{PKBR_A} = \frac{W_P}{W_A} \cdot \frac{RWP_P}{RWP_A},$$

we obtain the equation:

$$PKBR_P[zl] = \frac{W_P}{W_A} \cdot \frac{RWP_P}{RWP_A} \cdot PKBR_A[\$].$$

Dividing labor costs (*W*) by the number of employees (*L*), we obtain the formula for an average payment (*AP*):

$$PKBR_P[zl] = \frac{AP_P}{AP_A} \cdot \frac{L_P}{L_A} \cdot \frac{RWP_P}{RWP_A} \cdot PKBR_A[\$]$$

In turn, dividing *PKBR* by the relevant number of employees, we obtain the equation:

$$PKBRE_P[zl] = \frac{AP_P}{AP_A} \cdot \frac{RWP_P}{RWP_A} \cdot PKBRE_A[\$],$$

where *PKRBE* — is the actual GDP per employee.

Since the ratio of average payments adjusted by the parity of actual productivity, identifies the trend of the exchange rate (Dobija, 2001), we conclude that the rate is influenced by the purchasing power parity of actual GDP, which accounts for one employee. Thus, we have the dependence:

$$PKBRE_P[zl] = g(ER) \cdot PKBRE_A[\$],$$

where $g(ER) = ERN \cdot ERP$.

The exchange rate combines two factors. The first *ERN* — the parity of average payments. If labor productivity is identical in two countries and the exchange rate, e.g. equals to 2 — this means that the average payments in one of the countries are twice as big. The second factor (*ERP*) shows the difference in labor productivity in the compared countries. If labor productivity in the two countries is not the same, the rate is identified by a nominal factor, like the parity of labor productivity.

The above formula shows that the numerical value of the rate is provided by a form as a product of two parities: nominal and productive, i.e. the exchange rate has no direct application in the comparisons, but it is possible to determine the respective manipulation of behavior in this case. It is on the basis of parities, providing form to the rate, that it is possible to define the GDP evaluation procedure in a particular country, using actual GDP in the USA, which accounts for one employee, being a true value. It becomes possible because the ratio (parity) of real labor productivity can be calculated, dividing the real GDP of the USA by the real GDP of Poland, expressed in dollars. Thus, the average value of the exchange rate is identified by the formula

$$\mathrm{E}(ER) = \frac{AP_P}{AP_A} \cdot \frac{RWP_A}{RWP_P} = \frac{AP_P}{AP_A} \cdot \frac{PKBRE_A(\$)}{PKBRE_P(\$)}.$$

On this basis, we can derive the formula for evaluating the Polish *PKBRE*($), using the market value of the rate and *PKBRE*($) of the USA:

$$PKBRE_P(\$) = \frac{PKBRE_A(\$)}{ER \cdot \dfrac{AP_A}{AP_P}}.$$

Taking the average rate in 2006 of 3.07 Polish zloty per US dollar, the average hourly payment in the USA in the amount of USD 16.5 (Auhustynyak, 2007) and comparable payment in Poland (18.5 zł), we get the evaluation of a real product accounted for one employee in Poland in the amount of USD 32,910, with the identical value in the USA

amounting to USD 90,112. It is important that the presented method assumes the evaluation of domestic *PKBRE*($) relying only on the exchange rate and value of the American *PKBRE*. This method was received theoretically and simply, thus is universal.

To calculate *PKBRE* (per capita) in dollars or actual GDP per capita, we multiply the last sum by the number of employed people in Poland (14,359,000 people) and divide it by the number of residents:

$$PKBRC_P[\$] = \$32\ 910 \cdot 14\ 359\ 000 : 38\ 700\ 000 = \$12\ 210$$

We get the value USD 12,210, which nevertheless is burdened by error of estimate of share of average payments and number of employed people. For comparison: the value of *PKBE* in the USA is USD 44,010.

Parities of labor costs and productivity can also be used in a number of derivative parities. For this purpose, we present *PKBRE* as the product of average payment *AP* and real work productivity *RWP*. In turn, we will present payments as the product of the degree of remuneration of labor and value of human capital. We will present human capital *H* in the form of the product of the cost of maintenance and training (*k*), and individual labor potential *ILP*:

$$g(ER) = \frac{PKBRE_P[zl]}{PKBRE_A[\$]} = \frac{AP_P}{AP_A} \cdot \frac{RWP_P}{RWP_A} = \frac{k_P \cdot u_P \cdot ILP_P \cdot RWP_P}{k_A \cdot u_A \cdot ILP_A \cdot RWP_A} = \\ = \frac{k_P[zl]}{k_A[\$]} \cdot \frac{u_P}{u_A} \cdot \frac{TWP_P}{TWP_A},$$

where $AP = u \cdot H$, u — is the level of remuneration of labor, $H = k \cdot ILP$ — average value of an employee's human capital; k — cost of maintenance and training; *ILP* — individual labor potential; *TWP* — total work productivity. According to the theory of human capital, the level of remuneration of labor exceeds $u = 0{,}08$ that determines the appropriate permanent payment.

In the formula on the right, the value *TWP* is difficult to measure, because it includes an employee's personal productivity, the impact of the infrastructure and organization of labor on average per worker employed in the economy, regardless of whether he is a worker, a teacher or a minister. Based on the above formula the second method for evaluating *PKBRE* in the USD can be obtained. We estimate the ratio of the average monthly costs of maintenance and training in the following way:

$$ER = 3{,}07[zl/\$] = \frac{700zl}{\$600} \cdot \frac{0{,}10}{0{,}11} \cdot \frac{TWP_P}{TWP_A} = \frac{700zl}{\$600} \cdot \frac{0{,}10}{0{,}11} \cdot \frac{2.89457}{1}.$$

This formula shows that labor productivity in the USA is 2.89457 times higher, than that in Poland. Consequently, real GDP per employee in Poland corresponds to USD 90,112 : 2.89457 dollars or USD 31,131. This estimate is burdened by an error in the estimate of monthly costs of maintenance and training, as well as an error in the evaluation of the parity of level of remuneration.

The assessment of labor productivity in Poland in comparison with the USA can be determined based on the data in Table 1.7.

Table 1.7

DATA ON CHANGES OF LABOR PRODUCTIVITY IN POLAND AND THE USA

Year	2002	2003	2004	2005	2006
PKBRE (GDP) (USD) in the USA*	83,699	85,394	87,575	88,852	90,112
Growth relative to 2002	100	103.3	110.0	116.0	122,4
Average zloty:dollar rate	4.10	3.84	3.55	3.23	3.07
PKBRE (GDP) (USD) in Poland (deduction)	22,886	24,931	27,656	30,839	32,910
Growth to the 2002 level, %	100	108.9	120.8	134.7	143.78
Percentage of *PKBRE* of Poland to the USA	27 %	29 %	32 %	35 %	37 %

* Groningen Growth and Development Centre…, 2007.
Source: author's calculations.

Table 1.7 clearly illustrates an optimistic picture, because labor productivity growth in Poland is higher than in the USA. It is adversely affected by the fact that the level of remuneration in Poland is not always appropriate, but we can assume that such imbalance will be corrected by the Government decision (August 2007) to increase minimum wages by 20 %. This decision is quite reasonable in view of the existing state of affairs.

When a particular state, e.g. Ukraine, does not allow a free market exchange rate, then regardless of the interpretation of this fact, an impenetrable curtain falls on the economic affairs of the country and any evaluations are not very reliable. You can try to penetrate this curtain, but the rate comprises the final value, which is formed in a pure market and

nothing changes it. For the analysis of Ukraine, according to the indices in table 1.7 I am using the results of O. Petryk (2005), an analyst at the National Bank of Ukraine, who estimated a 76 % depreciation of the hryvnia against the dollar in 2005. According to the corrected rate, we estimate the Ukrainian *PKBRE* (GDP) using the formula

$$PKBRE_U(\$) = \frac{PKBRE_A(\$)}{ER \cdot \frac{AP_A}{AP_U}} = \frac{\$88\,852}{3{,}80 \cdot (16{,}5 : 9{,}0)} = \$12\,754 .$$

Table 1.8 contains data on Ukraine similarly to Table 1.8.

Table 1.8

DATA ON CHANGES OF LABOR PRODUCTIVITY IN UKRAINE

Year	2002	2003	2004	2005	2006
Hryvnia:dollar exchange rate	5.00	5.00	5.00	5.00	5.00
Coefficient proposed by Petryk	0.83	0.82	0.79	0.76	0.73
Adjusted hryvnia rate	4.15	4.10	3.95	3.80	3.65
PKBRE (GDP) (USD) in the USA	83,699	85,394	87,575	88,852	90,112
PKBRE (GDP) (USD) in Ukraine	11,001	11,361	12,093	12,754	13,466
Growth to the 2002 level, %	100	103.2	110.0	116.0	122.4
Percentage of *RKBRE* of Ukraine to the USA	13 %	13 %	14 %	14 %	15 %

Source: author's calculations.

The information value of these calculations and indices depends on the extent to which the exchange rate is free in the market. If this condition is not met, then the estimates may be far from reality. The lack of a free exchange rate is evidence that the economic policy of the country is neither mature nor managed by the category of value. The second condition of the quality of results and information is limited to the proper evaluation of average payments parity [41].

[41] Estimated average payment in 2006 in Ukraine is presented according to Prof. F.F. Butynets, Zhytomyr State University.

1.6.7. Improving the Theory of Exchange Rate

It is well known that the primary theory of an exchange rate, expressed in the currently falsified law of *one price*, was brought to a state of decent theory that explains the general nature of the Balassa-Samuelson course, who introduced the PPP (purchasing power parity) method[42] during the determination of the category of labor productivity. The above authors analyzed labor productivity by dividing the economy into two sectors: values subject to and those that are not subject to international exchange. They stated that lower labor productivity is mainly manifested in the sector of values subject to exchange rather than the sector of values that are not subject to exchange. In my opinion, this statement is wrong. In poor countries the second sector has much greater lack of productivity than the first sector.

Thus, it is essential to take overall productivity into account, because the exchange of national currency is affected by all employed people. It is not important for the rate that there is a ministry or some other institutios in the community of the employed, which are inefficient and spend large amounts of money, or that active bureaucracy inefficiently absorbs large amounts coming from the taxpayers. This situation affects productivity and finally — the exchange rate of the national currency. Therefore, labor productivity can be defined as a dimensionless value of GDP per monetary unit of labor cost rather than value of production per working hour of the employee.

With these considerations and calculations we come to a conclusion on the exchange rate theory. As is well known, according to the PPP method, the level of the exchange rate is influenced by fluctuations in inflation and productivity. Since the impact of inflation is seen in actual labor productivity, it can be stated that changes in the exchange rate are caused by changes in this parity. It is also known that the PPP method does not explain why, for example the current rate of the zloty to the dollar is 2.835, and for example, not 1.5 or any other. We find the answer to this question in the following considerations. The level of the exchange rate is determined jointly by parities of maintenance cost (or average payments) and actual labor productivity. With equal productivity, the exchange rate is determined as a ratio of maintenance costs. Average payments are the function of maintenance costs, so the parity of maintenance costs can serve as a parity of average payments.

The integral model of the average exchange rate is determined in the following formulas:

[42] Purchasing power parity. (*Note of editors*)

$$ER[P/A] = \frac{AP_P}{AP_A}\frac{[zl]}{[\$]} \cdot \frac{RWP_P}{RWP_A} = \frac{AP_P}{AP_A} \cdot \frac{PKBRE_A(\$)}{PKBRE_P(\$)} =$$
$$= \frac{k_P[zl]}{k_A[\$]} \cdot \frac{u_P}{u_A} \cdot \frac{TWP_P}{TWP_A} \approx \frac{k_P[zl]}{k_A[\$]} \cdot \frac{TWP_P}{TWP_A}.$$

Value $ER[P/A]$ means the exchange rate of country P to currency of country A, other definitions are the same as above.

Substantiating this theory of exchange rate it is necessary to consider two arguments: (a) a state when actual labor productivity $RWP = WP/(1 + i)(WP = PKB/W)$ is the same in the considered countries, i.e. parity is observed, and (b) a state of the inequality of these values. Then we get the formula that interprets the exchange rate as follows:

$$\frac{AP_P}{AP_A} \cdot \frac{RWP_P}{RWP_A} = \frac{AP_P}{AP_A} = ER[P/A].$$

In addition to research presented in works (Dobija, 2001, 2002a, 2002b, 2003), the fundamental analysis of the above formula was conducted by Z. Grabowski (2001a, 2001b), the results of which are presented in Table 1.9. Further research was conducted by M. Jędrzejczyk (2004, 2007), who obtained similar results.

Table 1.9

EVALUATION OF EXCHANGE RATES ON THE BASIS OF LABOR COSTS (data as of 2000)

Country	Average payment in USD	Average payment in countries	Calculated rate	Actual average rate
Germany	$2,437	4,300 DM	1.765	1.74 DM/$
Japan	$2,437	298,900 YEN	122.7	121.00 YEN/$
Ukraine	$2,437	1.649 UAH	0.677	0.61 UAH/$

Source: Grabowski, 2001a.

As you can see, consistency of some rates with actual payment cannot be coincidental, i.e. there is some dependence. Even the fact of ever lower productivity in Great Briatin as compared to the USA and Japan is also reflected in figures.

In the second case $RWP_P \neq RWP_A$. With actual variations in labor productivity, the dimensionless coefficient U is introduced, and then we can write the equation as follows:

$$RWP_P \cdot U = RWP_A.$$

Now the previous formula takes the form:

$$\frac{AP_P}{AP_A} \cdot \frac{RWP_P}{RWD_D \cdot U} = \frac{AP_P}{AP_A \cdot U} = ER\left[P/A\right], \text{ where } U = \frac{PKBRE_P[\$]}{PKBRE_A[\$]}.$$

Poland and Ukraine are countries where productivity is quite different from the USA, Germany or Japan. Therefore, dividing the Polish minimum or average payment by American equivalents, we do not obtain any reasonable approximation of the rate.

Table 1.10 presents data relating to a group of selected countries confirming the dependence of the rate on the parity of average remuneration, adjusted by the coefficient *U*.

Table 1.10

EVALUATION OF THE EXCHANGE RATE BASED ON AVERAGE PAYMENTS AND LABOR PRODUCTIVITY (data as of 2006)

	USA	Ukraine	Poland
Average hourly labor costs	**$16.5**	**9.51₴**	**18.5 zł**
Share of labor costs	…	0.5764	1.2569
Actual exchange rate	…	**0.582**	**3.07**
PKBRE (GDP) ($)	90,112	84,457	34,263
Share of *PKBRE* (GDP)($)	…	1.0670	2.630
Payment value of the exchange rate	…	**0.6150**	**3.3056**
Difference between actual rate and payment	…	**– 0.033** **–5.6 %**	**+ 0.2356** **+7.67 %**
Calculation of hereditary dollar trend (7 %) of determined exchange rate[43]	…	…	**3.069**

Source: author's calculations.

The application of the theory of parity of payments and labor productivity leads to a more accurate evaluation of the hryvnia to dollar

[43] Calculations using the value of average payments and *PKBRE* leveling the impact of exchange rate.

rate. Directly calculating productivity in the USA, we get the value $PKBR_A/W$ = 3,0. In turn, we assume that labor productivity in Ukraine is at level 1, i.e. is lower; the contribution of payments to GDP is equal to 1. Using the parity of average payments, we evaluate the exchange rate (*ER*) *of the hryvnia as follows*:

$$ER = \frac{9UAH}{\$16,5} \cdot \frac{3}{1,0} = 1,64\ UAH/\$\ .$$

As a result, we get the relevant evaluation of the *PKBRE* for Ukraine and Poland:

PKBRE ($) in the USA = 90,112;
PKBRE ($) in Ukraine = 29,970;
PKBRE ($) in Poland = 32,910.

Calculations show that the exchange rate of the hryvnia to the dollar should be at a level closer to 2.0 than 5.0 (2006). Holding back the exchange rate at an undervalued level leads to the impoverishment of the population, because in this case, the dollar receives a premium of more than 150 % during exchange. However, this conclusion has an error in the evaluation of average payments, because nothing can replace the market value of the exchange rate. In view of the above the essential similarity of the Polish and Ukrainian economies can be confirmed.

1.7. The Role of Social Capital in Economic Convergence

1.7.1. Introduction

In economic theory more and more attention is focused on the huge role of cultural values and the functionality of the decisions of institutional economic systems in the study of reducing differences in development. At the present stage, the most important components of these values include social and human capital. Existing theoretical evidence and numerous analyses prove that the structure and quality of these types of capital show the results of the application of identical technology solutions, economic strategies and reforms that make up the rules of a capitalist economy. By doing so, human and social capital confirm the thesis of the results achieved in reducing differences in development. Therefore, many economists and politicians agree that the specific features of cultural values cannot be ignored during the reform of an economic system and a

political system, although in general, there are far-reaching ideas that it is expedient to form a competitive system operating within a democratic state, which will act as its guarantor. There are only differences in estimates of the applicability of central strategic coordination in the harmonization of economic efficiency and social justice, the pace of reforms aimed at the formation of functional markets, a democratic state and actual opportunities to support and improve markets by the state. The principal solution to these dilemmas in relation to a particular national economy requires the diagnosis of the human and social capital of the economy according to changes in resources, its structure and quality. Special research needs to determine the paradoxes of the development of the resources that add value to development processes, as well as implementation of systemic reforms.

Quite developed institutions of civil society contribute to the formation of social capital based on market values and traditional axiology in the USA. Figure 1.7 provides the axiological foundations of social capital and institutional order.

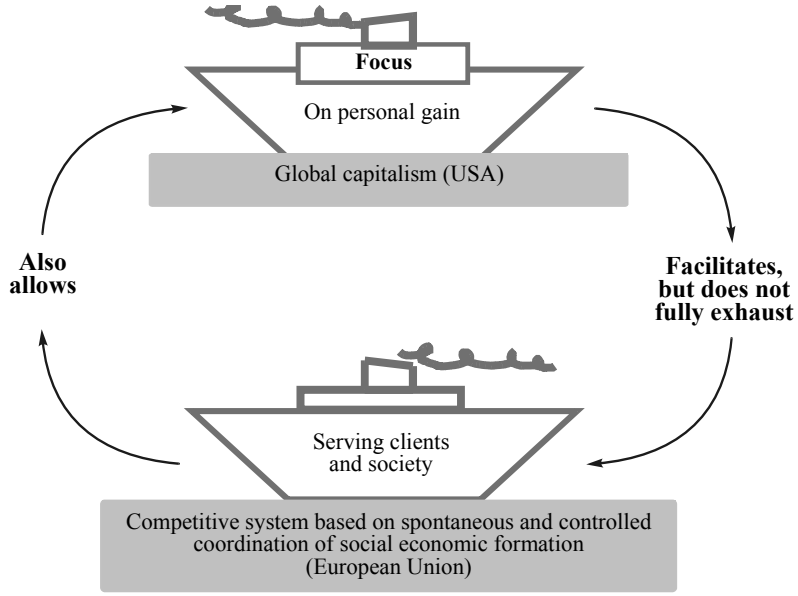

Figure 1.7. Axiological Bases of the Social Capital and Institutional Order

The productive nature of social capital is a function of the degree of trust in society, without which, the development of cooperation is impossible. Trust is an essential competitive advantage based on interaction, speed and

flexibility. Trust facilitates the emergence of a favorable climate for the development of partnership relations, the decentralization of decisions and control, the internationalization of external norms, patterns of behavior, rules and procedures, increased reliability of co-operation in an unstable (which is going through tumultuous changes) environment, freedom of handling information. Through the above processes, trust allows the possibility of cheaper transaction costs and control, replaces the «corrupt practice of interaction, loyalty and good faith of partners». Trust also promotes independent actions (activity of subordinates) and, therefore, unconventional solutions and the elastic reactions of subordinates. It facilitates the most effective measures, especially in terms of risk and uncertainty. In other words, the use of other assets in those groups and places where a large amount of trust resources is accumulated, is fuller, faster and more efficient, causing a synergy effect.

Keeping in mind the above-mentioned effects of trust, some researchers of social capital argue that trust is one of the most important things that people have, bringing overall benefit. Other production resources, if there is no trust, become unnecessary ballast (Hardin, 1998, p. 9). According to K. Arrow (2000), the economic backwardness existing in the world can be explained by a lack of mutual trust. If this thesis is true, it is impossible to reduce the difference in development without improving the form of social capital in the countries lagging behind.

It can be considered that the climate of trust, which is favorable to economic and social development, also depends on the differentiation of income, property and knowledge between the rich and the poor, just as people belonging to different cultural, religious or mental groups are dependent on axiological differentiation. Income inequality has a limit, which is difficult to define, beyond which there is a sense of injustice. Injustice as a result of human relations in work means their separation from the ethical purpose (Tischner, 2002, p. 33). Thereby, injustice concerns faith in moral action and its ethical correctness. The feeling of injustice gives rise to suspicion and even hostility. Under conditions of labor exploitation, it is impossible to count on its impartial assessment, in view of a lack of material grounds of goodwill, because it was rejected, degraded and replaced by exploitation. Unfair inequality, especially the poverty, marginalization and even social neglect that accompany it, destroy trust, devalue social capital and through this, reduce the effectiveness of human capital and economic growth. Hence, the emergence of the fundamental question of the justice of social inequality.

Equal remuneration for each is naturally unfair, because it is separated from labor efficiency, its contribution to value, and most importantly — from the economic point of view, it is devastating as regards efficiency

and leads to poverty. In addition, the violation of only material equality (income, property) is not automatically tantamount to the violation of the very idea of equality, because inequality can be compensated in the form of intangible values, such as honor, respect, knowledge, etc. This means that the division, which is based on material equality that is economically unsubstantiated, is anti-development and cannot be interpreted seriously. Its product is a decline of motivation to work and business efforts, and thereafter — the spread of opportunistic behavior that causes the recompensation of the anti-efficient effects of distribution, separated from the contribution of labor in production. This division does not promote cooperation and replaces the horizontal connections, which cooperation is forced to replace by vertical connections. The replacement of social capital as the driving force of cooperation by vertical connections that are generated by the state, leads to a loss of trust in the institution and burdens society with huge additional transaction costs related to planning, verification and the adjustment of this cooperation.

If, following W. Pareto's theory of inequality, we accept that economically justified inequalities are those, which serve to increase social welfare, then we must recognize that fair distribution has nothing to do with the extent to which equality is realized. However, economic inequality substantiated by this theory of well-being should not be accepted at the individual level by the majority in society. In this situation, it is impossible to improve socio-economic development, and at the level of the individual, it is even expedient to speak about anti-development.

Only in case of failed indoctrination or other forms of coercion, does social approval recognize inequalities as being fair. Justice cannot only be described in the economic plane, because it would mean its reduction to the material dimension of human existence, and thus removed from the field of the perception of intangible inequalities. Justice is a moral category and should be treated under the axiological dimension of human life, reduced by individualism. According to J. Rawls (1994, p. 119), justice requires impartiality. Thus, motivated choice guarantees the benefit of all. J. Rawls postulates the egalitarian principle of differentiation, seeking such settlement of social and economic inequalities, *«... to be of greatest benefit for the least privileged, and that these inequalities are associated with positions and institutions, open to all in a genuine inequality.»* (Rawls, 1994, p. 119). However, J. Rawls does not attempt to balance out the situations that are in worse positions (principles of compensation). He speaks only about the adoption of such system solutions, within which the achievement of the best positions improves, or at least does not worsen the situation for the weakest social groups.

In a situation where the market does not make impartiality necessary, it becomes necessary to support it by solidarity. Therefore, postulating a solidarity state becomes the primary task. This postulate supports non-economic values, essential for the social development of an individual. According to J. Tischner (2000, p. 112), solidarity offers the prospect of hope that a man is not left alone in his suffering and creates a sense of community. If people lose the sense of solidarity, the question arises: how can justice be enforced from above? The decline of solidarity is a symptom of the decline of social capital that grew from traditional values.

It should be noted that the world of individuals, who maximized their own benefit, has no need of solidarity, just as in Darwin's struggle for survival, it limits the abilities of the weaker to use resources, and may even eliminate them. It is not sufficient just to search for inequalities, based on the criteria of utility, which forces the maximization of own benefit, since victims of long-term failures and poverty have no reason to complain about the unfairness of distribution and, moreover, cannot do it effectively.

Freedom of life as a basis of economically fair inequalities adopted in liberal economic theories, means concentration on resources. This approach, according to A. Sen (2000, p. 53-54), although it may indicate a free receipt of resources, does not clarify the issue of freedom of action — what is the increase of resources for. Materially understandable welfare will say little about the value categories of life (Filek, 1996, p. 21). The system of values that motivates the development of appropriate values for the harmonious development of all spheres of human life, is basically different from the system of values generated by the competitive system. The freedoms that promote valuable lifestyles are denied by ideology, which understands man and forms human capital for own benefit. This ideology detracts the main aspect of human capital and perceives only its objectivity or ability to generate profits for the entrepreneur. Therefore, we should agree with A. Sen that injustice, which is manifested in the form of poverty, also comprises the injustice which limits freedom, and being suitable for the idea of □□democracy, is favorable for the functionality of markets. Justice manifested in the destruction of the consequences of unjust division, especially poverty, exile and marginalization, is concentrated, according to H. Jonas, on what is already a fact, that has occurred and occurs continuously today, because the inherent feature of the institutional system is the generation of negative responsibility (for actual, not potential evil) in view of the lack of social responsibility in competitive market structures. For Jonas (1996, p. 186) the very existence of human everyday life requires a guarantee for its future existence. Each of us, as a result of living among people, can be brought to responsibility instead of someone else

(children, subordinates, employees), and from the very fact of existence, can also become the subject of responsibility. In this sense, being responsible in everyday life is an a priori thesis, the natural feature of a man. However, a man may not have this feature under the influence of ideologies that limit the axiological dimension of human existence. Since the existence of human everyday life is substantiated by itself, then its future existence also becomes substantiated. The duty to protect human life also means the protection of a comfortable life and the need to eliminate poverty.

Thus, anyone whose actions affect the life of the community (entrepreneur, politician, representatives of government, self-governments, trade unions or any group of interests), even when he does not perform actions arising out of power, the bearer of which he is, is not exempt from objective responsibility for the negative effects of extreme poverty, the marginalization of some social groups and even globalization.

Only such actions of each individual can be considered responsible, that ensure responsible action for future generations. «Therefore, responsibility in terms of mankind requires not only the further existence of the category, but also the achievement of the quality of life that would allow the continuation of this responsibility» (Dobrobyt. .., 2005, p. 103). The lack of social responsibility arises not in spite of poverty and social captivity, and at best, exists in a weakened sense of moral responsibility for one's life, moreover, it shows lack of responsibility in those, who avoid self-responsibility or social responsibility.

H. Jonas does not share the hope of solving the problems of poverty through technological development and fear of an explosion of violence on a global scale. In his view, those who possess surplus should be self-restrictive and transfer part of their wealth to the needs of the poor. This self-restriction is not facilitated by the dominance and radicalization of neoliberal ideologies, thinking in utilitarian categories and the decline of the idea of the state as an institution based on moral capital. The moral scandal, which Jonas understood as a lack of responsibility in those who are able to improve the lives of others, should be eliminated, even if we are not sure of the results of efforts in this direction. In his opinion, it is impossible to do this with the aid of personal ethics, because it has lost its force in the world, where the pursuit of personal gain is dominant. Therefore, what is needed is such social and human capital that allows the tracking of the threat of an outburst of protest by the poor against the benefits of the rich, before the poor decide to use mass violence.

Only those endowed with the knowledge of these limitations of own benefit, the representatives of business, politics, technology, education or upbringing can meet these challenges. In this regard, one should not ignore traditional values and moral education as factors that affect the

way of applying knowledge and other resources. Lack of knowledge about preventive measures against injustice and factors that enable the comparison of its manifestations in various aspects of life cannot be an excuse to remove responsibility for decisions relating to the criteria of equitable distribution.

The course of the reflexive upgrading of human capital is closely linked with changes in social capital, which determines the directions of using available knowledge resources in the process of cooperation. The essence of connections between human and social capital is expressed in the effects of changes in social capital (i.e. the decline of public trust) on how to use human capital and the extent of its non-use that follows from the high level of opportunism, corruption, crime, unemployment, growing spheres of difficulties, poverty and social exile. For the creative abilities of human capital to materialize, knowledge, skills and motivation invested in a man should be involved in the economic process, like other types of capital. If this does not happen, such investment in a man will only perform an expensive function of the production process. Only education and upbringing, which increase the productive capabilities of a person become human capital. Instead, the knowledge and skills that increase the possibility of collective actions are transformed into intellectual capital. For the full use of the productive capacities of human and intellectual capital, it is necessary to unite them with social capital or such specific kinds of knowledge and skills that generate trust, as well as the ability to co-operate and collaborate.

There is also the opposite dependence, which goes beyond the problem discussed herein. It should be noted that even when the performance of firms where low and high trust is the same, the work of the latter brings external benefits in the form of a high sense of security and satisfaction, as well as self-fulfillment in the non-economic spheres of personal life. The disadvantages of a market institution not only lead to the violation of the competitive system, but also cause the improper functioning of the state and the degeneration of democracy.

Informal institutions, determining the level of public trust, demonstrate the tendency of people to cooperate, the transaction costs of some cooperative groups and thus, determine the dynamics of markets, productivity of factors and economic growth. If their product is growing public trust, they become the material of positive social capital, because its products are as follows: the expansion of cooperation and entrepreneurship, increase of productivity factors, innovation and as a result, development of markets. If institutional changes open the way for the expansion of opportunism, corruption, crime, nepotism and the pursuit of *rent seeking*, a climate of social mistrust develops and negative social capital is created, which generates an increase in social conflict,

social inequality, the degeneration of democracy, cooperation, competition, and as a result, the use of some resources of human capital in a manner that causes negative external effects with the simultaneous depreciation of these resources. All these processes decrease the ability to cooperate, because its coercive nature by vertical connections increases the transaction costs of such cooperation. Its synthetic manifestation is the slowing down of economic growth and increase in the slowing of the development of countries with higher levels of social capital (Zak, Knack, 2001, p. 295-321; Kumor, Sztaudynger, 2007). Reducing the development gap in the absence of restrictions in access to financial resources and substantive factors of production becomes primarily the function of the quality of human and social capital. In the first case it pertains to the avoidance of paradoxes in the human capital development described in the previous sub-section. However, in the second case it is about institutional changes that make it possible to reduce the transaction costs of the functioning of markets and spheres of public welfare. This is evidence of the need to counteract the depreciation of social capital through the development of the institute of a just state, i.e. one that cares about:

- a competitive order, whereby during the first distribution of income, the economic criterion of justice based on the involvement of the production factor in the product and productivity, would manifest itself;
- implementation during the second distribution of the ethical criteria of justice spread everywhere;
- a reduction of the transaction costs of economic growth through the elimination of opportunism, corruption, crime and the pursuit of *rent seeking*, and thereby, the restoration of public trust.

1.7.2. The Problem of the Depreciation of Social Capital

The formulation of conclusions regarding the role of social capital in the functioning of an economic system based on its impact on the growth and development of economic or social inequality, which is analyzed using mathematical operating and econometric models, would be a very simple method, which would reduce the actual significance of this important factor in these processes. It is particularly confirmed by the fact that a synthetic indicator of this factor of social and economic development has not yet been found. There are also no sufficiently accurate methods of measuring manifestations of the depreciation of social capital. The question that arises, is whether the different impacts of changes in social capital, obtained through imperfect research, reflect its overall impact on the functionality of the economic system, or is it only the impact of some of its functions, components or mechanisms created by it?

The value of social capital for economic growth and development, established based on an analysis of the functions of production, is quite incomplete. Without downgrading the achievements of many authors in the research of the exact methods for determining the effects of social capital in social and economic processes, I, however, advocate that a more cognitive value can have a descriptive analysis of the key mechanisms by which social capital may influence the effectiveness of the economic system and which are somehow related to the non-economic conditions of economic growth and development. However, to be limited by the conclusions of the analysis based on quantitative models, would, in my opinion, mean a depreciation of the different effects of changes in social capital that influence the level and stability of economic growth, various manifestations of economic disbalance, the instability of economic policy and continued manipulation by the parameters of this policy, the deepening of social inequalities, and the resulting increase in socio-economic heterogeneity in the spatial and subject systems, on a local and macroeconomic scale[44]. Lack of knowledge on the subject or ignoring it was, in my opinion, the reason for forecasts that are too optimistic as regards the measures recommended by neoliberal standards, defined according to the Washington Consensus, stabilization programs and the system reforms implemented in post-socialist countries.

There is a general unity of views regarding the fact that the process of the decline of social capital is an indisputable fact identified on a global level. However, this decline is sometimes associated with the formation of negative social capital, emerging with the appearance of negative particular values connected with the need to bribe trusts under conditions of overall public distrust (Matysiak, 2006, p. 241-247). This process is undoubtedly connected with the spread of thinking and behavior according to the categories of the individual who maximizes his/her own benefit under conditions of lesser or greater poverty in the competitive order. Based on representative surveys conducted in 32 countries, Zak and Knack (2001, p. 295-321) confirm that greater trust increases investment in economic growth, and there also emerges an error circle of low trust and poverty, but egalitarian distribution and a homogeneous society increase the level of trust, but discrimination reduces it.

The depreciation of social capital is due to rapid changes in lifestyles caused by new technologies (the information and telecommunication technologies used in genetics and in the media that exhibit the culture of violence), globalization and resulting rapid institutional changes (in

[44] Review of research results, based on quantitative models can be found in: Sztaudynger, 2005

contrast to the adaptive abilities of people), change of traditions, spread of unfair and fierce competition, growing social inequalities, connected primarily with the inheritance of poverty and social exclusion, supported by corruption and crime, the decline of political culture and the reputation of politics and even democracy, ineffective self-administration and government agencies, as well as the privatization of public sphere.

In Poland, the depreciation of social capital is particularly strong, as evidenced by fast-growing indicators of corruption, crime, unemployment, poverty, social exclusion, marginalization, number of prisoners and growing inequality. There are also numerous attempts to depreciate the influence of social capital on economic growth, as indicated by the statistically strong negative effects in spheres such as unemployment, social inequality, crime, investment and economic growth (Sztaudynger, 2005). If the depreciation process of social capital is viewed from one side of its distortion — corruption and crime in a broad sense — in the information provided by International Transparency in 2004, Poland should be referred to the most corrupt countries in the EU (Kieżun, 2005, p. 121). After two years of Government efforts to fight corruption and crime, and strong opposition from existing groups of interest, the impressive progress on this issue becomes notable, as proved by statistics, although this problem is often reported differently in the mass media. The situation is similar if unemployment is deemed to be the source of the decline of social capital. By 2004, Poland was the country with the highest recorded rates of unemployment in the world. Joining the EU and good economic conditions have changed this situation. However, the rapid decrease of unemployment has no substantial effect on the growth of public trust, although it is expedient to hope that this new kind of social capital based on market values, will gradually also extend to the sphere of the employed labor force and temporarily unemployed people[45].

1.7.3. Conclusions for the Transition Economies

Counteracting the shock, which was characteristic of the transition to a market economy, the depreciation of social capital and its replacement by negative social capital, which led to an increase in social inequalities,

[45] Fighting corruption in Poland, as in Ukraine, is very problematic, and for the period after 2004 no major improvements have occurred. In 2008, Poland was 58th according to the level of corruption (1st place — lack of corruption) of 180 countries subject to research. Among EU countries, only Romania and Bulgaria lagged behind. However, it is difficult to say anything as regards Ukraine. It's in 134th place (index 2.5). For us, it is not comforting that Russia is in 147th place (2.1) and Belarus — in 151st (2.0) Just like rust, it corrodes Ukrainian society, nullifying the national idea and the idea of Eurocentrum (*Note of Ukrainian editors*) Source: http://transparency.org/policy-rescarch/surveys. — Indiceslopi/2008.

required appropriate institutional instruments that would protect the deregulation and privatization from possible distortions: impunity of corruption, liberties of nomenclature and the escalation of the pursuit of *rent seeking*. These phenomena open the way to new tax and employment legislation, the criminal and regulatory functioning of public sector administration, etc., favorable for the growth of socio-economic heterogeneity, which preserves some alternative routes for the realization of personal gain through third parties (which do not participate in transactions). These additional external instruments inherent to the process of the transition to a market economy reduce not only the efficiency of economic growth, but also slow down and even make the process of economic convergence temporarily impossible. They primarily act due to the loss of the reputation of politics, politicians and businessmen and, as a result, there is a depreciation of social capital in view of the general decline of trust. Institutional solutions that are not able to ensure a competitive system in this space, promoted the formation of negative social capital, which increased the transaction costs of the cooperation process and directed the activities of the persons concerned towards the escalation of *rent seeking*, the support of asymmetric information, «entrepreneurship» outside the law, crime and corruption, which ultimately reduced labor productivity and deepened social inequalities.

The problem of the depreciation of social capital in Poland, as in many other post-socialist countries, is integrally related to the conflict of rules of global capitalism, defined in the Washington Consensus, with the post-socialist baggage of overall opportunism, lack of trust of any government, respect for law and the destroyed **epos of labor**. In these circumstances, the vast majority of citizens could not be intellectually and institutionally prepared to undertake self-responsibility for their own welfare and the internationalization of the effects of competition rules, were not limited by the rules of social and economic cohesion adapted accordingly to these effects. The logic of shock system changes inevitably had to result in new obstacles in the development and sources of the further depreciation of existing social capital resources.

The sudden explosion of unemployment as well as the consequences of decreased productivity paved the way for the rapid spread of poverty. This gave rise to various social problems in the form of the use of significant energy in criminal activities, particularly by young people, deprived of the possibility to work. The state, burdened with debt and growing poorer, was deprived of the financial ability to counteract these processes, in spite of effective public policy, the provision of additional equipment to internal security services, the improvement of requirements of justice and health care.

In Poland, as well as in many other post-socialist countries, the launch of the difficult process of transformation was also connected with a burst of criminal capital, since it was formed under conditions of the non-transparency of laws, which did not provide for the restriction of corrupt practices. Regulations that contributed to the establishment of nomenclature unions as early as in 1989 were a striking example. This fact gave specific features to the transformation process. The fierce struggle of people, who pursued only their own interest, found a great field to flourish in an unregulated economy, which lacked developed civil society institutions, legal institutions and social and economic structures, adapted to the blocking of rules pursuing *rent seeking* and personal gain that would comprehensively supervise the observation of recognized requirements of public responsibility. As a result, there was an enormous social stratification. This was due to rising unemployment indices, which were the highest in Europe. The reduction of these indices in Poland after its accession to the EU is unfortunately connected with the decline of human capital, caused by the loss of hope for work opportunities in Poland and obtaining relevant remuneration for it. Another manifestation of the increased cost of economic growth arising from the depreciation of social capital is constantly increasing rates of corruption and the lack of trust in the political class. According to the surveys held by Transparency International, the corruption index, calculated on a scale of 0-10, with 0 being the most corrupt country, of the 113 taken into account in Poland the level rose from 5.6 in 1996 to 3.6 in 2003. Rates of public trust in political parties were notably low (about 10 %), ambassadors and senators (about 9 %), while indices of sense of corruption and bribery (64 %), lack of representation of interests (64 %)[46] were high.

The conflict between liberal doctrine and liberal policies implemented since 1989 with a post-socialist system of values aimed at a paternalist state did not contribute to the social trust climate. Deregulation, subject to global standards, built on the principles of Anglo-Saxon neoliberalism, made it impossible to form a strong state with a clearly defined sphere of competence and transparency laws that would protect citizens from the abuse of power by the officials and authorities, and employees — from the purposeful pursuit of the enrichment of the capitalist class being formed. The subsequent about-turn to restore the licensing of business activity opened the field for distortions arising from the pursuit of *rent seeking*. The heterogeneity of legislation and its continuous amendment invoked regular channels of distortion at the junction of state and business. One of them is the spread of the belief that a person is involved

[46] Based on the research by J. Grabowski, given according to: *Administracja*…, 2005, p. 186—188.

in public life to maximize his/her own benefits and advantages for relatives.

Democratization truly opened the space for free choice, but collided with the system of institutions connected to each other, formed according to the logic of democratic centralism. The result was the formation of parties in the state by providing freedom of action to various government agencies so that they primarily served the interests of groups connected with the party system. This situation formed the belief that the territory of the country was a kind of «hunting zone». Trust in those who govern was almost completely eradicated. Declarations aimed at correcting the situation in the Republic of Poland, under such state of the destruction of social capital, recommended isolation from people, who come from the nomenclature of PRP[47], from political influence, these same declarations are interpreted with great suspicion and the belief that they refer not to the program of institutional reforms, but only to the capture of «hunting zones».

In a society, where at least 50 % of citizens wished to leave their country, about 17 % were unable to work, the sense of the lack of representation of interests dominated, and governments were treated as a hostile institution, about 70 % of citizens did not want to belong to any organization (*Administracja*..., 2005, p. 167), moreover, the media focused exclusively on addressing negative stereotypes of power and ethical and moral values; there was no favorable climate for the restoration of social trust. The depreciation of social capital led to complications in working on the development of the Polish economy in the period before its accession to the EU. In addition, low social trust today does not contribute to the full use of all development opportunities provided by the adoption of EU *Acquis communautaire* (social achievements) and the development of human capital.

A necessary condition for change in these negative processes in the sphere of social capital, thus one of the major obstacles to high and stable economic growth is the reform of institutions that would provide:

- guarantees of legal institutions, establishments that would protect the rights of citizens and minorities from the tyranny of the majority, state and self-governing bureaucracy;
- protection of economic subjects and citizens from the abuse of power and degeneration of democracy arising from continuous amendments to legislation, licensing and increases in the number of economic regulators;
- protection of authorities from the influence of dominant interest groups;

[47] This refers to the People's Republic of Poland (PRP) as the socialist country it was in the early 1990s. (*Note of editors*)

- enabling authorities to conduct legitimate governance and policy of socio-economic unity, without destroying the competitive system;
- elimination of the lack of ethical and moral values (Matysiak, 2003).

The necessary components of the institutional system, capable of resolving conflicts between the interests of public agencies and individuals, are the functional institutions of civil society. A condition for the formation and functioning of these institutions, in addition to compliance with the law, is the relative prosperity of most citizens and a low level of poverty. The unsatisfactory functioning of the institute of democracy and high levels of marginalization and social isolation caused by unjust social inequalities and relatively low social prosperity, create an unfavorable climate for rebuilding social capital.

Economic liberalism, especially in its extreme forms, is not a sufficient basis for projecting the institute of civil society. The institutional condition for the formation of civil society is wide and available for the execution of civil authorities in controlling public agencies. This can be served by: transparency and the full responsibility of the authorities for policies implemented on the basis of clearly defined and transparent criteria, laws available for holding civic referendums that make it possible to veto adopted rulings and regulations, making own suggestions. Unity of law and responsibility is a necessary part of legal management. This is essential for the civilized rules of a political market, limitation of the tendency of some politicians to use faulty economic models in various theories for specific interests and errors manifested in the discrepancies of implemented institutional economic decisions, which arise due to the inadequate understanding of this very theory.

The post-socialist economy is burdened with additional transaction costs, arising from inherited comprehensive opportunism, disrespect for the law and the numerous obligations of state agencies and local governments that have yet to be completely determined by law. It is because of the above positions, as well as through the flawed institute of civil society, that democratic institutions and the lack of transparency of laws are used not only by state and self-governing administration, but also by interested circles as a screen for opportunistic behavior and the evasion of obligations owed to society. They also complicate and even make it impossible for actions arising from the need to work on expanding the area of civil liberties, which are required to increase the effective coordination or reduction in the pursuit of *rent seeking*.

The system of institutions in Poland is also the product of changes occurring in the EU. The market, combined with the central strategic coordination focused on social and economic unity, can create a system of institutions that is more useful for the protection of social capital from

depreciation, rather than the rules of global capitalism. For this process to take place, meeting the requirements for institutions arising from Poland's membership in the EU and many international organizations cannot be the cause for the implementation of the specific interests of politicians and government. Although in many cases, institutional changes connected with the development of market economy require solutions on the international level, only the activity of the state in the restoration of social capital cannot lead to the improvement of the institutional system based only on the EU's *Aquis communautaire*.

If a society with a developing economy lacks innovations in the field of the coordination of socio-economic processes that introduce legal government, the wandering ghost of the decline of the reputation of politicians and politics, opportunism, the collapse of democratic institutions and state, will make impossible the decrease of difference in development, since the identical production technique and technology of global capitalism can facilitate an **increase of labor productivity** only under conditions of institutional order being the most suitable for the development of social capital. This means that the stronger the relationship between people and the ability of the institutional system to coordinate public entities within an overall project are, the more suitable are contracting and property rights, and the asymmetry of information, opportunism and the pursuit of benefits is less, the smaller the transaction costs and the **higher the labor productivity** using the same technologies.

On the microeconomic level, the saturation of the element of trust, as the driving force of cooperation development, is conducted through the expansion of entrepreneurship, the development of local self-government, the equitable distribution of social property, social and legal partnership and various other organizations of public life, functioning under non-profit principles.

The low level of trust complicates the establishment and operation of unions and small and medium enterprises. In associations, code regulations only ensure the rights of shareholders, while business is based primarily on trust as well as relations between companies. However, it can be replaced by formalized institutions that create the possibility of cooperation, but the result of their activity is the high additional costs of cooperation. Small businesses often lack funds for the services of law firms and **economic analysis**. This is why the development of the small and medium enterprise sector depends on trust. Already at the stage of the establishment of enterprises, the social climate surrounding entrepreneurship is evidence of their formation as institutions promoting entrepreneurship. In the social environment where running a business is tied with corruption, access to sources of power and obtaining information, which is difficult to get, concessions are often evaluated as being necessary

according to the criteria of traditional values. Such a social environment is typical for developing countries. Therefore, it is very important to form institutions that promote the development of entrepreneurship. For a favorable climate around the formation of small and medium enterprises state and self-government authorities are required to support consultations, training in entrepreneurship, loan guarantees, assistance to companies and their products.

The decentralization of public finances enables a better use of social capital during the production and distribution of state property. In contrast to the trend towards the growing fiscalism of the state, connected primarily with an increasing number of tasks in the public sector concerning environmental protection, education, health care and communication, which emerged as a result of unemployment, social distortion and poverty, the problem stands out of the coordination of economic efficiency and social justice. The development of a socio-legal partnership is of great importance for the resolution of these issues. This is only possible in societies which have accumulated the relevant resources of social capital, enabling the fair sharing of benefits between the partners of this cooperation.

Non-profit organizations can contribute to the development of social capital and overcoming of problems connected with its depreciation. Non-governmental organizations, such as cooperatives, mutual insurance companies, public funds or foundations contribute to the development of social capital because of their specific properties, such as:

- voluntary and open membership;
- democratic control by the members themselves;
- combination of interests of members and consumers;
- independence from state power and independent management;
- distribution of economic surplus to statutory individual and social goals that are viewed as major, compared to objectives relating to capital.

The introduction of these organizations to cooperation with agents of the public and business sectors contributes to the probability of distribution processes, and thus, raises the level of public trust in the complete transparency of public-private partnership contracts and, more specifically, strict compliance with the law. The introduction of non-profit sector to the production of state property and privatization of services can also result in overcoming the barrier of the low level of trust in state power.

It should be noted that the development of non-governmental organizations is the best form of civic education, because it extends public participation in the process of economic decision-making related to the struggle against poverty and social marginalization.

The huge role of non-governmental organizations on the labor market illustrates the fact that in EU countries one third of the persons engaged in

independent economic activity are comprised of those involved in the third sector. Although the income of those involved in this sector was lower than in the market or public sectors, but thanks to non-governmental organizations this socio-professional group with over 10 million workers in the EU is well protected against marginalization on the labor market. In Poland in the 1990s 1.2 % of employees working in the national economy, excluding agriculture, were involved in the third sector. According to J. Rifkin, the third sector provides the only practical constructive solution of the problem of the surplus labor force, resulting from the expansion of global capitalism and the development of markets (Rifkin, 2001).

The above facts clearly show that during counteraction to the depreciation of social capital as a result of the expansion of the rules of global capitalism, policy and changes in the system of institutions that promote the expansion of non-profit organizations have an important place. It is no wonder that their quantity is one of the indices of the level of social capital.

1.8. Paradoxes in the Development of Human Capital and Economic Convergence

1.8.1. Introduction

The modern theory of economic growth shows strong evidence that long-term growth of GDP per capita is the result of investment in practical knowledge, or human capital, which makes it possible to improve the quality of life, since it improves the level of skills and professional experience of employees. In the neoclassical theory of economic growth, knowledge is the source of new technologies. Innovations manifested in new technologies, production methods and methods of its organization, and new or improved products (Schumpeter, 1960), are the source for the growth of high productivity, but on the exhaustion of opportunities for increasing the cost of labor and physical capital, they are the only source of economic growth (Solow, 1956). The development of the modern theory of economic growth in the last thirty years has enabled the separation of the impact of changes of knowledge on the growth of production.

According to the methodological paradigms of neoclassical economics, the introduction of the «human capital» category means the interpretation of its bearer — the person as a factor of production, in which investment makes sense only if it will serve the increase of market values. This understanding of the role of a human individual in the economic process

explains investments in a person as a factor of capital creation, but only provided that these investments are the source of additional marginal profit for the enterprise and (or) personal benefit for the owner of this capital. This means that only practical knowledge and skills that are the source of health and vitality, bringing the values defined in market terms, comprise human capital according to the economic growth theory (Domański, 1993 : 13). To accept human capital in such a way means to accept a person as a «homo economicus», or a one-dimensional individual whose sole function is to maximize personal gain in market interaction.

This individualized perspective on human life is criticized by supporters of holism. However, in the holistic approach the question arises: what is the mutual combination subject to the above-mentioned function of the objective of investing in a person with his/her integrated development that along with the economic sphere, includes the following spheres: biological, consumption, technological, political, social, knowledge and spiritual (Horx, 2002 : 45-51). In view of the holistic perspective, it should be noted that the methodological non-adjustment of social sciences, the didactic and educational process for the needs of integrated development of the individual was and will continue to be the fundamental and universal paradox of general investment of knowledge in a person, which occurred during the process of the modernization of Europe, which had already started in the first half of the 21st century, then spread to the rest of the world. The harmonization of the development of all spheres of human life should be recognized as the fundamental purpose of investment in a person. The development of the economy, based on knowledge (KBE) cannot be subject only to the criteria of the performance growth of production factors. Its vocation lies in the continuous improvement of the quality of life during long-term balanced growth. Only when the economic system is directed towards the integrated development of all spheres of human existence, can the following be possible: the harmonization of economic efficiency and justice through the development of human capital, the elimination of unjust social inequalities and convergence in a broad sense of the word with social and economic development.

The attempt to combine individualism and holism is traced in the institutional decisions of the European Union, manifested as support of markets by central strategic coordination, aimed at social and economic unity, among other things, outside pressure on the development of human capital. For post-socialist countries aspiring to work out the development distance through fundamental issues, they only have to remove the specific and universal paradoxes of human capital development, which are the source of additional funds that do not generate a synergistic effect on national product.

1.8.2. Findings of the Theory of Endogenous Growth

Paul Romer (1986), explaining the technological progress as an endogenous factor, made a pioneering contribution in the modern theory of endogenous growth. This author sees the reasons for improving technology in the growth of human capital skills through establishing a more productive machine park or the replacement of obsolete facilities and tools. These various technological innovations struck trouble with their holistic interpretation in growth models. It was this problem that he was able to solve. In the Romer model, the main driving force of economic growth is the improvement of knowledge about how to convert the cost of products or technological progress, which, in his opinion, serves as the effect of planned actions of business entities that make decisions based on economic incentives. The incentive for innovation may also be the subject of targeted decision-making at the enterprise or through other branches of power aimed at the regulation of economy. Such a mechanism for the generation of innovation means that technological progress is endogenous in nature, in contrast to the neoclassical interpretation. Romer's approach to the field of technology is the same as for every other good. Technology and inventions are made, based on labor and capital. The best places to study the process of creating new technologies are various research laboratories. Making inventions in them is a kind of production process. Researchers publish their achievements in the form of numerous new patents. This interpretation, however, is general and less formalized, although it does transfer a certain image of the improvement of technologies.

Despite the global corporations located in them (which do not play a significant role), developing countries generally do not have the personnel, as well as the financially and technically supported research laboratories responsible for creating inventions. Therefore, they are destined to focus largely on facilitating the diffusion of innovations and, potentially, on international endeavors in the field of scientific and technical research.

P. Romer was also interested in the consequences of the spread of technology. He notes that the innovations created in one scientific research center can be used in the scientific work of other laboratories. This is what is done, for example, in Japan. Sweden manufactured the Hripen military aircraft, based on imported supersonic aircraft technology and global company Nokia has been successful in Finland. This import of technology allowed the introduction of new technologies in various branches of the economy of these countries.

In EU countries, autonomous innovative processes are supported by the priorities identified in the Lisbon Strategy and funded through budget

grants of the Community. Within the National Regional Development Strategy for Poland for 2007-2013 the «Innovation Economy» Operational Program was proposed, for which a quota of more than EUR 7 bln was allocated.

However, the patenting of inventions means their exclusion from the process of technological development. However, these exclusions do not apply to employees of other laboratories. Hence, the characteristic feature of technology used for the new production of technology is its inseparability. This feature indicates that you cannot prohibit another company from using some technology for a certain period of time. Thus, the use of technological inventions can be general and continuous, in which the nature of technology as a benefit will differ from other economic goods. This is due to the following:

firstly, a characteristic feature of knowledge is the absence of competition in its use. This means that the use of innovation by one entity does not restrict other subjects' access to it;

secondly, adherence to the patent rights of inventors will allow them to gain profit from inventions, but partially restricts general access to innovations. It is impossible to fully patent knowledge. The creation of knowledge cannot be fully appropriated by inventors. Thus, the creation of knowledge causes increasing benefits (so-called external effects). As a result, the unrestricted growth of knowledge and limited capacity to patent it, cause income growth according to the scale of production technology.

All the resources of human capital and part of the capital accumulated in the field of scientific and technical knowledge influences the level of economic growth. As the stock of knowledge grows over time, and, therefore, the overall level of skills should increase, the growth rate of product per capita in the economy, according to Romer, must be clearly accelerated. It should also be expected that countries with low relational resources of human capital should have a relatively low GDP growth per capita. According to these views, the main source of differentiation of living standards between countries is a specific transition from knowledge about technology to knowledge of technology, and as a result, we have a difference in productivity. Hence, countries that are isolated from free access to innovative knowledge are doomed to stagnation. This is why the theory of endogenous growth assumes that the process of aligning the level of GDP growth per capita could promote the spreading of new knowledge or the increase of human capital in poorer countries.

The fundamental condition for the development of scientific and technical knowledge, which are primarily accumulated in the new technology, is the development of economic cooperation with those countries, which are better equipped with human capital and new

technology. Hence the need to develop markets and free trade, support the inflow of foreign investment as well as scientific and technical cooperation, including international cooperation. The best conditions for the development of the latter are created by markets that are not limited by tariff and administrative barriers, with state protectionist policies, regulating the free exchange of goods, services, capital and labor. The creation of better conditions for the development of human capital lies in the basis of modern integration processes.

More specifically, the EU created good institutional prerequisites for stimulating this process in underdeveloped countries. Regarding issues related to development of human capital, it is expedient not to dwell on only the strategic priorities of the development of human resources. Removing the paradoxes that they carry in the EU is integrally linked with the ways of granting state aid and regional policy, which clearly follow from the objectives and ways to achieve them. These objectives are defined in the laws of the Community beginning with the Treaty of Rome (1956), the Single European Act (1986), the Treaty on the European Union and finally up to the Reform Treaty.

However, the question arises of how an underdeveloped country can discount benefit based on the inflow of innovative knowledge, since relevant liberalization for the implementation of this inflow is necessary. In practice, it leads to the outflow of the skilled labor force to developed countries, thereby exposing the producers of human capital to spending resources for its restoration and the high risk of its transfer abroad without any compensation for the national economy. This paradox of the development of human capital, which is universal and fundamental for developing countries, is the result of the imperfection of goods markets.

Under conditions of the liberalization of the labor market, the acceleration of convergence through the development of human capital in isolation from the problems of the functioning of the labor market, will cause the so-called cost effect in poor countries, but in developed countries, it will lead to the income effect which is not burdened by investment in education and formalized training. Resolving this paradox is impossible, due to the state placing obstacles in the sphere of labor force migration. This approach would mean the simultaneous creation of barriers to practical training in an environment with a higher intellectual capital and technical capital of work support. This would also lead to relevant restrictive practices or even to those that in some cases, make it impossible to diffuse new technologies and results in the R&D sphere. In terms of the efficiency criteria of economic compensation for countries — suppliers of human capital, they are not controversial and could be resolved in accordance with the logic of markets functioning through the introduction of standard procedures and those that required all countries

to acquire such resource, the way quotas are bought in accordance with the law on the emmission of pollutants or licenses.

It should be also emphasized that in practice there are usually various barriers to the free flow of capital from rich to poor countries, which bears a high investment risk. They are:

- macroeconomic and political instability;
- a poorly developed infrastructure;
- an undeveloped educational system;
- excessive fiscal policy;
- widespread corruption, failure to comply with laws, non-implementation of agreements, weak protection of property rights;
- ethnic conflict against social inequalities.

The above-mentioned phenomena steer the effort of business entities towards the capture of resources, gaining excess profits, which are not derived from economic activity, and an increase in the general level of knowledge.

The involvement of business entities in the creation of innovation requires the functioning of institutions that: promote technological innovation, accumulate knowledge, protect property rights, guarantee the gaining of profit from innovations for inventors thus provide support of the growth of technologies. Government policy should be directed towards the support of high-level of scientific research activities through private and public institutions.

Another universal paradox of human capital was identified by G. Becker. In his opinion, in addition to the level of education, other indicators of human capital are important for economic growth in society, particularly: improving the level of health, increased life expectancy, the reduction of infant mortality and increased benefits for children. Their most important determinant is the birth rate, which is also evidence of the size of the population. G. Becker draws attention to the exogenous nature of this process. He notes that parents make a choice between the number of children and their future level of education (Becker et al., 1990 : 145-149). The correlation between these variables influences the fact that in poor countries, the Malthus model of poverty remains relevant, because poor countries respond to economic growth by increasing the number of children in families. As a result, countries with high inequality and a high birth rate are characterized by low economic growth, because the high birth rate reduces the value of human capital (education expenses) (de la Croix, Doepke, 2003). Thus, we can expect that an increase in the population of children from the poorest strata will give rise to inequalities resulting from the distribution of human capital that in future will bring slower economic growth and not only prevent convergence, but could also cause further distancing in development.

Based on the above dependence between the birth rate, education, social inequality and economic growth, there was a vicious circle of poverty, which meant that high economic growth with low GDP per capita leads to an increase in the birth rate, but a decrease in human capital, which limits future economic growth, strengthens poverty. Assuming that alternative funds, the number of children or the level of social welfare, which are characteristic of a typical family model, will also become inherent in the individuals formed under the influence of the development of markets, a demographic crisis will be the inevitable consequence, i.e. the product of the same mechanism referred to by G. Becker. Its source is the gradual commercialization of all spheres of human life.

Highly developed countries may, for a while, deal with the adverse effects of a demographic crisis, one of which is «the pumping of brains» as barriers to the movement of the labor force. Given the additional costs allocated for the development of human capital and those related to raising children, there is a paradox of the development of human capital, consisting of making future productive effects connected to natural growth in rich countries, although these types of costs for investment in people are also allocated in poor and developing countries.

Since in the modern world growth is based on the human and intellectual capital of the establishment of development distance, it is complicated by the fact that rapid development requires a high propensity for thrift and investing in people. However, investment in people is always associated with social costs as expectations of increased productivity resulting from these investments will only justify themselves after an extended period, while productivity depends on many other factors and conditions of the economic process. Sometimes knowledge is only a cost, if due to certain circumstances, it does not actively participate in the development of national productive resources (e.g. through the lack of demand for upbringing, secondary and higher education for changes in the economy, the mass emigration of a qualified labor force, imperfect public infrastructure, inadequate quality of human capital to the requirements of the economy, based on knowledge and international competition). The effects of expensive new knowledge always dominate for a short period, but their productivity is also possible for a long period. Since poorer countries are characterized by low national savings, they usually cannot use new knowledge for the acceleration of economic growth. Meanwhile, as the experience of Japan shows, the development, which enables rapid approximation, is connected with the extensive use of both existing and new knowledge.

Since the labor potential of any national economy, especially its quality, is proven by the scale of investment in people, human capital is,

to some extent, a function of GDP per capita. Obviously, in poor countries, the lack of national savings causes major problems in the growth of investment in people. So, if human capital is the foundation of sustained economic growth, its high dynamics is possible only when the economy reaches certain critical parameters that determine the quality of labor. This is because by increasing the productivity of resources, human capital prevents tendencies to reduce marginal income from real capital, and even bringing external benefits, can contribute to income growth (Romer, 1986; Lucas, 1988).

C. Azariadis and A. Drazen (1990) argue that in practice, external benefits only arise when the stock of human capital is relevant to the high level of income per capita. Thus, the lower the GDP per capita, the lower the possibility of investing in human capital and vice versa. Economic policy, based on rapid increase of investment in human capital (actually pursned in socialis countries), in the absence of liberalization could not cause economic modernization that would meet the needs of the global market. On the other hand, liberalization requires meeting a number of complex conditions, and although it promotes technological progress, it also causes the outflow of human capital because of the migration of the skilled labor force to countries with a higher level of economic development.

1.8.3. Problems of Measuring Human Capital

A particular problem connected to the study of the role of human capital and social development of the individual, the differentiation of welfare and quality of life on microeconomic, local, national and supranational levels lies in the difficulty of its measurement. The influence of human capital on the above categories — though it raises no doubts — is quite difficult to measure. The measurement of this category is complicated not only by the heterogeneity of the subject areas of investment in a person and its multidimensional interdisciplinary character. Human capital consists of many elements, such as: general and specialized skills, accumulated knowledge as a result of experience and professional practice, as well as the psychological and physical characteristics of individuals (health and vitality). Against the background of its complicated structure, there is a problem of the relevant systematization of personal characteristics in the framework of this economic category (Woźniak, Jabłoński, 2006). Proposed by a new theory of economic growth, the quantitative measurements of knowledge resources, such as: number of persons with primary, secondary or higher education, R&D funding, health care, number of new and recognized patents, structure of education, etc., do not take into

account the main qualitative aspect of human capital, that is decisive and has a much stronger effect on the chances and opportunities of individuals, social groups and peoples of the world.

It should be emphasized that it is difficult to attribute objective quantified values to a large group of its components (Czekaj, Jabłoński, 2004), which suggests that they cannot be compared to anything, and in some cases, they cannot be measured. The above problems and the related inability to express some essential components of human capital through market categories indicate that there is no synthetic approach to measuring human capital.

There are also the problems of comparisons on an international scale, associated with the lack of reliable statistics on investment in human capital by households and the private sector, and, worse, there is no information in this sphere over a long period of time. We propose an original method of measuring the cost of creating human capital, which is owned by a person from his/her birth until employment as well as relevant productivity, which states that these funds could be the subject of national accounts.

Whether productivity growth accordingly impacts the growth of remuneration arising from investment of human capital in labor productivity is also controversial. The lack of this mutual combination observed in many countries proves the incapacity of market mechanisms in the formation of effective relationships such as: investment in human capital — economic growth — fair social inequality.

1.8.4. Paradoxes of the Quantitative and Structural Adaptation of Human Capital in a Post-Socialist Economy

Universal and equal access to primary and secondary schools in the modern world is not enough for the development of human capital and the limitation of unequal opportunities for an individual. In post-socialist countries, including Poland, even education at an academic level is no guarantee of effective employment. It is limited by the need to restructure products concentrated in declining industries. After a centrally-planned economy we inherited:

- old products, not adapted to the requirements of open markets;
- formal education system, not connected with the requirements of a market economy;
- impaired production apparatus based on a physically and morally outdated technology;
- hypertrophied employment method connected with policy of full employment pursued in the centralized planned economy.

These factors were the source of transformation regress and the rapidly growing high level of unemployment. In countries where it was decided to accelerate the development of a market economy, transformation regress was significantly shorter, but was usually replaced by fast growing unemployment. However, in countries where the development of a market economy occurred gradually, including in Ukraine, transformation regress was continuous, although unemployment remains largely hidden behind the doors of employment institutions. In both cases, the development of a market economy had to cause the temporary loss of human capital connected with unemployment and the emigration of workers, or the non-adjustment of its quality to the requirements of open markets. This price of transformation on the part of human capital was however, inevitable. Without the development of a market economy, the necessary qualitative changes of human capital could not take place. According to D. North (1990) (actually it is his subjective view of the world), a competitive system is created subject to the effective use of human capital and the effective planning of its development. Proof of this is the success of economic systems based on the competitive system, the fall of the Soviet Union and great progress in education. However, do not give up to the illusion that in countries that struggle with the consequences of economic growth and decided to transform the centrally-planned economy to a market system, the conditions favorable to the adjustment of human capital and investment in it according to the requirements of open markets, arise by themselves.

One of the main paradoxes of the development of human capital in post-socialist countries, is the excessive quantitative development of the resources of people with secondary and higher education with the simultaneous non-adjustment of the structure and quality of these resources to the needs of the market and public sectors. These paradoxes result in the depreciation of human capital as compared with the excess of a skilled labor force and the emergence of a new space for inequalities caused by the unemployment of educated people, which leads to frustration. The excessive quantitative development of human capital also means extra costs for economic development, difficulties in ensuring the harmonious development of those sectors of the economy, that are based on knowledge and traditional sectors and problems in adapting institutions to the requirements of global capitalism.

At the beginning of the process of the development of a market economy, all post-Soviet countries were characterized by significantly higher rates of energy, material, labor and property consumption than highly developed capitalist countries. Experts estimated that in Poland, the productivity of GDP was almost three times lower than its average in the EU. Reducing differences in this field required not only access to

modern technology, but also meant the need for the radical improvement of the qualifications of professional personnel in the business sector and public administration. This is evidenced by the fact that doubtlessly the level of use of modern technology, management methods and innovation is influenced by relevant resources, structure and quality of human and social capital.

In the early period of transformation, it was believed that reforms in the field of education can be delayed, because the problems of education were, so to say, resolved satisfactorily under socialism. Unfortunately, the realities were different. The inherited system of education management did not meet the criteria of efficiency; there were no equal chances for all, except for some formal measures, that would ensure such equality. Education was aimed at highly specialized, ideological knowledge, it blocked independent thinking and the reflexive modernization of social capital focused on innovative positions. The product of this was human capital that could not serve entrepreneurship and the strengthening of economic efficiency.

The transition to a market economy, that began in 1989 and democratization created a solid foundation for the implementation of civil initiatives in higher education. In the 1990s, higher educational establishments began to conduct independent management, though with significantly reduced subsidies, as the transformation crisis took effect. They also lost the support of industry. Consequently, in 1998 there was a more than threefold drop in real subsidies for daytime students, and taking full-time students into account, the fall was fourfold.

This problem was partially resolved as a result of the commercialization of part-time education and the rapid development of private education establishments. In 1998, about 80 % of students paid in full for their education[48]. The significantly increased number of educational establishments, due to the growing number of students along with financial restraint, resulted in a sharp decline of interest in the profession of a teacher of a higher educational establishment, who received such a low salary, that he/she had to take up two or even three jobs, often outside of high school. The quality of the educational process decreased dramatically, as did the dynamics of academic papers and promotion in an academic career. Only clear signs of the devaluation of the qualities of the dynamically growing resources of human capital forced the government to conduct the reform of education and higher education since the end of 1999.

The reform of the school system in Poland is based on the decentralization of education management. It has brought significant

[48] The causes of the crisis in higher education in Poland, see: Kołodziejczyk, 1998.

changes in the funding of public school education, the creation of new types of schools and their reorganization, introduced new principles for the employment and remuneration of teachers. The introduction and establishment of educational missions is the responsibility of local government (for gminas — public pre-school establishments, primary schools and grammar schools, for counties — primary schools and special grammar schools, secondary schools that are higher than grammar schools, teen-age educational centers, for provinces — schools and education-training establishments of regional significance) .

The so-called teacher's card (Dz.U. of 2006, No. 97, clause 674) was introduced in the education system, regulating the promotion of a teacher (from a trainee — in a year — a teacher working under contract on the basis of an examination, in the next three years — a teacher, so named on the basis of an examination and a certified teacher).

The positive results of educational reform were as follows: the expansion of secondary and higher education, increased educational aspirations of society, significant improvement of the infrastructure of urban schools (computer rooms, gyms and swimming pools, subject workshops).

As before, the accelerated development of human capital resources in Poland is only the criterion of resources measurable by targets. According to this criterion it is believed that the desired level of education is so, when in 2010 as compared to 1990 there will be a five-time increase in the number of university students, in relation to persons of educational age. Therefore, the index of education coverage in high school should grow to 65 % in 2010, as compared to 50 % in 2004 and 11 % in 1990. The reform of the education system also contributes to the marginalization of vocational training as a result of a reduced number of graduates from secondary schools, who get their education in vocational schools, to 20 % (from 52 % in the 2004/5 academic year). The marginalization of vocational training will also be facilitated by the expansion of the so-called generalist education or secondary education without a professional bias, which should cover at least 80 % of grammar school graduates (*Strategia rozwoju szkolnictwa* ..., 2003, p. 6).

The authors of the draft education, who since 1999 intended to open the way to the transition from vocational training, specialized in the education system, to continuous education through individualized areas of vocational training and its reduction to several months. It remains an open question whether firms in Poland will have access to skilled workers, guaranteeing competitive professionalism with this four-year cycle of vocational education, which is common everywhere in the EU and covers from 40 % to 84 % of grammar school graduates (Kabaj, 2005 : 285). GUS studies show that already in 2002, firms had trouble finding workers

with basic vocational education (Kabaj, 2003 : 16). This problem became more acute due to an improvement in the economic situation and the liberalization of labor markets in the EU.

Joining the EU in 2004, with all urgency, raises the problem of the inconsistency of the education system in Poland with the requirements of open markets. Subsequent years show a growing shortage of skilled workers trained at a basic level in many fields, particularly in construction. There is also the problem of the emigration of technical personnel, medical professionals and specialists from other professions.

It becomes apparent that narrow professional specialization inherited from a centrally-planned economy was a great barrier to the active adjustment of the labor market to rapid technological changes in an open economy, because this adjustment is necessary under the influence of the information and telecommunications revolution, competition, new methods of management and changes of market conditions. However, the adopted directions of reform in the education system ignore the realities of the labor market in Poland and the EU experience. Politicians and journalists often cite the success of the Irish economy as an example, based on the knowledge and determination of development stages, but they ignore the fact that the development itself of human and intellectual capital was largely based on the development and improvement of existing secondary vocational schools (Kukliński, 2003 : 17).

It should be remembered that the development of an economy, based on knowledge, is an essential condition for improving the competitiveness of Polish enterprises. One would have expected that it would be accompanied by the extension of inequalities that are effective and conductive for economic growth and the improvement of its productivity. For this to happen, this process cannot be connected with the simultaneous growth of inequalities in the form of stratification arising from the expansion of poverty, being an outcast and marginalization due to high unemployment as a result of the violation of appropriate proportions for economic growth and the labor market between the development of sectors with high and low labor intensity. It suggests the need to observe the proportionality of structural changes in the economy, in order to avoid negative consequences for the processes of development due to the growth of irregularities in the form of frustration and the strengthening of the syndrome of complete helplessness among families living in lasting poverty and who are social outcasts.

In the economy, as in other sectors of human life, there are proportions optimal for the social development of an individual. The violation of these proportions leads to frustration, disappointment and the creation of barriers for those active people, who are looking for ways to solve their own problems. Forecasts, unaccounted for in the reform of the

education system, regarding changes in demand on the labor markets may lead to huge unemployment among graduates of higher education establishments. In Poland, already in 2004, graduates of secondary and higher schools comprised less than 10 % of employed people, while graduates of vocational and technical schools comprised 90 % of the workforce (Kabaj, 2005 : 272-273).

Clearly, when there is no opportunity to obtain employment that meets the qualifications of graduates of higher schools or their execution of similar work, when it becomes impossible to transform the acquired knowledge into capital, a state of frustration emerges, unnecessary personal and social losses appear, caused by expenditure on unproductive education and consequently, the depreciation of human capital occurs. There are also additional costs of these distortions in the form of the encumbrance of business entities by social evidence in favor of the unemployed and combating of unemployment.

Ignoring the realities of the labor market and the experience of developed countries presents the achievements of the post-socialist countries in the field of quantitative development of human and intellectual capital in a completely different light. To restrain the growing disproportion between supply and demand for the professions determined by development trends and corresponding qualifications, it is necessary to consider the experience of the most developed European countries. This means the need to introduce a dual education system, which facilitates the improvement of vocational training, because the following parties have their own shares in it: the state authorities, enterprises and students. Such a system preserves the natural mechanisms of education coordination and labor market, the development of economic sectors based on knowledge and traditional values, and adapts young people better for work that meets the needs of business practice. It also enables the limitation of the risk of frustration due to the depreciation of human capital and the risk of excess funds.

Increased heterogeneity and accessibility of education and ways to implement them may be a countermeasure to this destructive effect for the development of human and intellectual capital. According to the recommendations of the World Bank, the basis of education and training system adapted to requirements arising from the expansion of a knowledge-based economy is the heterogeneity of educational models and the introduction of the complex of result-oriented elastic standards. These models should guarantee public or private education, formal or informal, in higher educational establishments or in the workplace, remote, synchronous or according to a personally selected schedule. They will also provide opportunities for students to apply and implement educational needs at certain stages of life (Kukliński, 2003 : 22).

1.8.5. Specific Paradoxes of Quality Adaptations of Human Capital in Post-Socialist Countries

Another significant problem of imposed rapid development of education at secondary and higher levels comprises the relevant consequences for the quality of academic and lyceum education. The differences between the individual schools are huge. Access to the best schools is mainly due to the high material wealth of parents. Similar differences are observed on the level of higher education. These differences cause significant differentiation in the views of young people when choosing a professional education.

An analysis of the academic process shows that students who come from poor and rural families, often get a poorer education even in primary and secondary schools. Since they are less prepared for effective higher education, often they do not get it at all or study in such academic centers, which have worse competitive position in the education market. The lower qualification of this group of graduates, in turn, complicates their access to the most attractive job offers and is the cause of unemployment, so the graduates are forced to remain on their social level with less resources of human capital, which does not keep pace with the changes caused by the information and telecommunications revolution, globalization and is slowed down in the development of civilization.

Other problems regarding the use of human capital resources are connected with the impact of education on remuneration. Some scholars state that the education obtained at home is much more important. Accordingly, it raises the question of methods and criteria for the allocation of resources for training and education. The calculation of economic efficiency proves that education funding should be differentiated according to the abilities detected in students, especially in the domain of exact and technical sciences. Instead, social justice requires subsidizing the weakest students to improve their future position on the labor market to avoid deep social inequalities.

Measures that help to increase the optimal level of secondary and higher schools include increasing the share of young people, who have problems with obtaining secondary and general education or professional and technical knowledge, and the enhancement of practical skills of the young people obtaining a secondary and general education. These phenomena are increasingly observed in the system of formal education. It is also pointed out by the companies employing the graduates. The reasons for this are undoubtedly complex. However, one of the most significant sources of lower standards of education at the highest level is a growing proportion of young people, who are not prepared to obtain a secondary and general education.

The transition to a market economy will not in itself resolve the problems of the paradoxes of the qualitative development of human capital. This transition only shows that knowledge is capital, because the education system is capable of providing specific knowledge according to market criteria. The question can be asked: does the transition to a market economy lead to viable human capital in favor of integrated development in all dimensions of human existence? We know that investment in human capital under the laws of market economy undoubtedly means a real threat to the dedication of social problems on the altar of the economy (Toutaine, 1998). However, ignoring market signals also threatens investment in knowledge, which in practice may be incompetent.

Along with the development of competition and the spread of the axiology of the market in post-socialist countries, the trend towards the decline of solidarity and social responsibility for human capital are intensified. Shock transition to a market economy caused frustration and unreasonable expectations, based on self-responsibility and excitement for own well-being, loss of the sense of economic security, the appearance of deep social inequalities that are felt everywhere, spread of moral relativism, lack of ready uniform and related decisions. All of this became the reason that the main players in the arena of public life are unable to come to terms regarding the key issues, not only those relating to the functioning of spheres connected with the development of human capital (education, healthcare, family policy). This complicates state support of human capital development and the saturation of the process of its creation by the elements of trust. It makes a negative impact on the results of formal education and the efficient use of knowledge resources in the process of cooperation.

Investing in human capital is a huge problem for the poorest families. According to the data of the Central Statistical Office (GUS) of Poland, in 2004, 19.2 % of households were below the poverty line, giving them the right to state social aid. 58.6 % of households were below the statutory social minimum, and below the existence minimum — 12 %, i.e. 4.5 million of people (Dryl, 2005). It should be added that these poorest families are usually large. At the same time, the pressure of public debt inherited from the centrally-planned economy and chronic budget deficits have become the causes of the deterioration of the financial conditions of formal education and training, and in this regard, there was a chronic underinvestment of education of citizens. A UNESCO survey indicates that already at 4 % of GDP expenditure on education the so-called «threshold of death of education» is observed. In 1997 in Poland, expenditure on education amounted only to 3.5 % of GDP (Lewowicki, 1999 : 47). The huge educational boom in high school was the result of

the development of private schools operated on a commercial basis, but it had adverse effect on the quality of education.

Apparently, many other post-socialist countries face similar problems. The collision of this state of human capital with the information and telecommunications revolution, liberalization and related processes of setting standards proposed by global capitalism, caused the destruction of education models, the devaluation of the traditional ideals of education and the foundations of social life. Knowledge and skills formed for the needs of the economy of an authoritarian bureaucratic state, were not adapted to the conditions of radical transition to capitalism, the political market and the technological requirements of the information and telecommunications revolution. This world is a fertile ground for the development and strengthening of distortions.

The threat of budget deficit balancing on the threshold of 5 % of GDP specified by the Maastricht convergence criteria, which existed at the beginning of market reforms, made the radical change of material resources in the sectors responsible for development of human capital (education, higher education, healthcare, the field of interdisciplinary studies and R&D) impossible. At the same time, extremely modest public financial resources were distributed according to directions, most of them were usually allocated for the revitalization of own research and statutory activities, but this distribution was largely made using primitive methods. Thus organized process of research did not give grounds for establishing the professional diagnoses, necessary for intellectual, technically adapted to the requirements of the economy, based on knowledge and modernization.

1.8.6. What are the Results of the European Human Capital Development Program?

In a liberal system, the decentralization of responsibility for educational decisions and shifting responsibility for the development of human capital from the state to local authorities is impracticable. The state must find appropriate means for indirect influence on the subjects of the education system, that are responsible for resources, structure and the quality of human capital.

If we assume that the strategies of enterprises are based on such human capital that increases the efficiency of labor, a reasonable employer will count on the qualifications of employees, who will meet the chosen company strategy. He will support the policy that ensures a return of investments in employee training. It will result in a better adaptation of the structure of human capital to supply and demand.

We should also emphasize the positive role of the institution of competition on the education market between the private and public sectors, to the same extent in the provision of educational services and funding, e.g. by so-called school coupons. The need for this competition is substantiated by the fact that education is not a purely public good, but some economists point to conditions that promote effective competition, but do not work in education (the asymmetry of information that is of no good to the undereducated and poor families, institutional barriers in the case of the free transfer of students to other schools, the significant influence of indices of low trust, lack of altruism in a liberalized institutional order). Hence the need emerges for the establishment of centralized standards in the quality of education.

The introduction of coupons as a tuition fee would mean, as pointed out by opponents of the liberalization of the educational sector, the growth of income inequalities and pumping of resources from public schools. In turn, the introduction of regulatory factors should prevent differentiation in the quality of educational services; it would also mean increased costs of transaction measures against discrimination and for compliance with rules.

To increase efficiency, subsidies in the public sector of education, the following is proposed: to transfer school management functions to specialized companies or individual managers, to establish public schools, to reward teachers according to their actual educational achievements. These initiatives improving the quality and structure of human capital are closely connected with the possibility of working out and introducing exact evaluation criteria by accurate measuring methods of the results of education.

In response to the new challenges of globalization, the development of information and communication technologies, the states-parties to Lisbon Strategy 2000 adopted a joint resolution on the implementation of a strategic objective, which was to create the most competitive and dynamic knowledge economy based on instruments that are able to balance economic growth and the economy with more decent jobs and an economy that is more socially homogeneous (*Biała księga* ..., 2004). In 2010, this strategy ensured the implementation of the above objective through priorities, more or less closely connected with the development of human capital, namely:

- the creation of an information society;
- investment in human capital due to increased expenditure on R&D to 3 % of GDP in 2010;
- formation of a European research and innovation area for the coordination, updating and dissemination of research results between EU Member States, and the prevention of the duplication of expenditure for the similar research projects as well as counteraction to the «brain drain»;

- stimulation of entrepreneurship and the creation of conditions for the development of innovative companies, particularly with regard to small and medium enterprises;
- the development of an active employment policy to achieve a 70 % level of employment;
- increasing the mobility of employees through the open European labor market;
- increasing expenditure for education as a result of the systematic increase of revenues from private sources;
- increase of the proportion of young people, who finish their education at the age of 22 or older, up to 85 %;
- increase in the proportion of adults participating in further education to 12.5 %.

However, tasks in the field of the development of human capital that were put before EU states and defined in the Lisbon Strategy at the time of its revision in 2004 were only half implemented at best (Szomburg, 2004). Coordination aimed at social activation and reforms in all key sectors, was not applicable in EU countries. However, a new approach to education as an important key element, long-term and balanced economic growth, competitiveness, combating social marginalization and the elimination of regional disparities seems to be a question for the future, impossible for implementation in 2010.

This is also illustrated by the following facts relating to the entire EU space: the share of public expenditure in GDP for education change little, the share of R&D is about 2 % of GDP, the share of people with higher education in the population of a productive age barely reaches 21 %, the international mobility for all professions is estimated at 1.2 %, and in the academic environment this figure does not exceed 2 %.

New views on the development of human capital are presented in the revised Lisbon Strategy of 2004. The following practical steps were planned in the field of human capital development:

- establishment of the European Research Council, an institution that coordinates the activities of EU Member States in conducting major research, co-funded by the EU;
- making a decision on the future of the European patent;
- pursuing a policy to attract researchers from outside the EU;
- work on the national strategies of continuous education;
- progress in reforming the labor market.

The education system is of particular importance for the transition to a globalized information society. The main purpose of modern education is the education of communicative, well-informed citizens, who learn and create in ever — growing public access to information and communication technology. Thus, the priority for Poland is the expansion

of teleinformation services and skills in the use of teleinformation and obtaining information.

Increased Internet access, particularly broadband, and the creation of systemic incentives for investment in ICT is planned. Actions aimed at development are of particular importance for potential economic growth and the creation of new services: electronic business (e-business), electronic administration (e-government), distance learning (e-learning) and electronic health services (e-health).

The science sector in Poland requires a consistent increase of costs that will improve its competitiveness. On the one hand, it is necessary to develop a research base and scientific personnel, and on the other — manage existing resources for research in priority development areas of the country. It is also necessary to increase the role of research in the field of economic development, including through increased cooperation with entrepreneurs, business-related institutions, individual scientists, as well as through participation in the initiatives of European research area.

The key requirement is the more extensive use of the results of the R&D sphere by business entities, since this is what will ensure an increase in the transfer of modern technology, production and organizational developments. Regions, where individual scientists reside, who are capable of generating new knowledge and technologies and an economic basis for the commercial use of such knowledge, have the greatest potential. Foundations are laid for the creation of clear cooperation mechanisms with scientific-research representative offices and subjects of social and economic life. To improve the technological level of the economy, incubators and technological parks will be developed, as well as centers for advanced technologies in large research centers (*Strategia rozwoju kraju* ..., 2006 : 28-30).

Financial, infrastructural and material guarantees of the process for investing in human capital in post-socialist countries differs from the EU in all respects by a significant difference in development, and still more from the USA, which is the world leader in knowledge-based economic development. In view of such a state of the educational base in the post-socialist countries, significant quantitative progress in the field of the development of education cannot be fully capable of providing relevant functional knowledge, since this human capital is not used in full. For decades, the development of human resources in the field of relevant functional knowledge was held back, which led to a situation, whereby post-socialist countries are now in a situation of the simultaneous implementation of three modernization strategies in this field: evolutionary, technocratic and reflexive (Beck, Giddens, Lash, 1994). Without the first of them, which is based on spreading faith in science,

technical progress, overall education, scientific and professional specialization, it is impossible to remedy the situation in rural areas and in marginalized environments. Technocratic modernization should be accelerated, which lies in the application of exact sciences, the replacement of routine work by computer systems, the introduction of a scientific model of labor productivity in all sectors, including non-economic, the development of media and communication. However, this requires qualitative changes in the education process, because they are the ones that must ensure the compliance of formal education at all levels with the systems of specific knowledge in households, small and medium-sized firms and in the self-government and government sectors. There is also the problem of insufficient personnel training in conducting modernization. This situation should be corrected by taking on board the experience of countries with developed market economies. EU membership requires the setting of educational standards, consistent with the recommendations of the Lisbon Strategy in matters relating to human capital development. The implementation of these standards will be extremely difficult, if not impossible, if the state does not cease to treat education and science mainly as a field of costs to be got rid of via a systematic increase in the share of resources for such purposes from the private sector.

Continuous advanced training during continuous learning is also a big problem, but effective fiscal stimuli should be introduced here. For example, in Poland on the eve of its accession to the EU, only a small percentage of employees (14.5 %) underwent retraining. These were mostly young people with a higher education (Sztanderska, 2004 : 201). Joining the EU and the rapid inflow of foreign capital to Poland caused growing interest in continuous learning.

However, for economic development to be able to serve harmonization in the development of all spheres of human life, the new reflexive modernization of human capital is required. Its introduction requires a new type of organization as a form of the universalization of education, a new type of person capable of critical and creative thinking, ready not only to compete, but also to cooperate. This is impossible without public awareness of the need to adapt the development of human capital to the requirements of a knowledge-based economy and the development of an information society. The existence of markets and a democratic political system is essential, but not sufficient for the effective use of human capital to achieve the multi-dimensional development of society and the individual. Along with the spread of specific knowledge, it is necessary to take efforts to develop the system of values, connected not only with competitive order, but also with a just state, which respects the dignity of the individual and is able to combine economic efficiency

with fair social inequalities. Examples of the development proposed in the framework of EU legislation and the revised Lisbon Strategy, were focused on the reflexive modernization. However, the question arises about the instruments for their implementation, which will allow to avoide the coutry-specific paradoxes of human capital development. To date, there is no comprehensive diagnosis of the structure and quality of human and social capital, without which it is impossible to count on effective instruments for reaching an objective in this sphere. EU Member States can jointly finance these developments according to structural programs focused on the development of human capital. Poland has a quota that exceeds EUR 8.1 bln for the development of human capital in 2007-2013.

The fundamental importance of human capital as an indicator of economic growth, the expansion of the possibility of choice and individual development, innovation, growth of the productivity and competitiveness of enterprises, development of the knowledge-based economy, restriction of social and economic inequalities show that its development cannot be confined to market mechanisms. The state can support development of some components of this capital[49] with the aid of:

1) investments, that will increase the quality of human abilities related to education, upbringing, health care, migration, access to information on the status of companies and professional perspectives in research (improvement of the quality of human capital and the prevention of its devaluation);

2) aid during investment in information and telecommunications technologies (for the creation of relational capital);

3) institutional reforms that will facilitate the increased productivity of labor and social capital;

4) funding of research and education programs to create innovation capital;

5) the establishment and support of cooperation programs that will replenish relational capital.

The establishment of an effective development strategy for human and intellectual capital, which tends to rapidly reduce the difference in development distance, requires the definition of issues on raising money, sources for the devaluation of its huge accumulated potential, especially in the last fifteen years, and the identification of problems resulting from paradoxes of its development.

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[49] This means human capital and organizational capital consisting of the capital of intellectual property, infrastructure, procedural, innovative, as well as social and relational capital. See: Bal-Woźniak, 2005, p. 15—18.

There are two ways in which the development of human and intellectual capital is being carried out in Poland:

• through conscious improvement by planning the system of education, upbringing, healthcare, recreation and aid in the development of culture;

• through the approval of independent decisions by the participants of social and economic processes under the influence of external factors arising from the market and the social environment, in which these individuals reside.

Both these ways are influenced by traditional actions that are specific for Polish society, aimed at the achievement of an objective, regardless of the invested funds.

This type of action is contrary to the requirements of a capitalist economy, particularly its modern form — global capitalism. Its product is the ruthless removal of all forms of the protection of national markets and the expansion of local markets open to asymmetric competition of multinational corporations. The process of transition to a market economy that had lasted almost the life of one generation, brought a sharp increase in resources of graduates of higher schools. However, this process did not take place simultaneously with the transformation of criteria related to quality and the structure of human and intellectual capital. The membership of Poland in the EU opens a new stage in the development of human capital, connected with the transformation of its quality and structure.

In order to realize the creative possibilities of human capital, the knowledge, skills and motivation invested in a person should be included in the economic process, similar to other types of capital. If this does not happen, this type of investment in a person will perform only an expenditure function in the manufacturing process. Only education and upbringing, which increase the productive capabilities of the individual become human capital. Instead, knowledge and skills that increase the possibility of collective action are transformed into intellectual capital. For the full use of the productive capabilities of human and intellectual capital it is necessary to unite them with social capital or the specific kinds of knowledge and skills that will generate trust, ability to co-operation and collaboration.

Human capital cannot be regarded merely as an instrument of economic growth or development. Investing in people would lead to objectification of the subject of a business process. The development of human capital should be recognized as a permanent part of individual and social objectives that occurs directly through the extension of individual choice, and indirectly, through the extension of the selection of those, who as a result will benefit from this more reasonable impact of individuals on institutional and social change, or by uniting human

capital with social capital and its oversaturation. Only such an approach towards human capital can fully describe its implications for convergence with regard to economic growth and the development of all spheres of human life.

Thus, the understandable functions of human capital generate problems in education, upbringing, healthcare and other manifestations of social and individual life. This means that its functions should be involved in developing skills for action in people, the extension of possibilities to act so that people can live according to their own values. The implementation of the functions of education, upbringing and healthcare cannot divert attention from the unfeasible conservation of values, which in European civilization is connected with responsibility for own well-being, moral identification, with the axiological problems of education (including the economic one), and through its mediation, with the social responsibility of business, state and self-governing institutions for the development of human capital.

CHAPTER 2
THE EVOLUTION OF POLAND'S ECONOMIC MODEL

2.1. The goal and means for a transformation of the economic system

2.1.1. Substance and elements of the transformation of an economic system

The transformation of an economic system encompasses all changes in the regulation of the national economy, coupled with the transition to a new economic system. Recent examples of such transformations are the changes taking place in Central and Eastern Europe, having shifted from state-run to market economies.

The transition to market economies in these countries should have been preceded by deregulation resulting in the liquidation of regulatory and enforcement institutions that dictate the volume, structure, and technology of production and its distribution. To this end, industry-oriented ministries and their distribution functions, the central macroeconomic planning institution, centralized and sector-based ties of economic organizations should be eliminated. They should instead be commercialized, privatized, and deregulated, leading to a restructuring of products and production administration in-line with open market requirements; those unable to adjust are doomed to liquidation or bankruptcy. These changes free the space needed to develop horizontal ties and to establish the relevant institutions for a market economy. The legal framework adjusts itself to the market economy, new ministries emerge, and new laws are passed that shape the «constitutional» features of a market economy. As a result, capital markets, labor markets, a state treasury, and funds are able to emerge and local bodies of public economic administration become self-sustainable.

The state's role in a transition to a market economy cannot be limited solely to deregulation. Being satisfied with deregulation means delaying the period of efficient markets formation due to the inertia of economic agents and state-owned monopolies' control over the market. To minimize public spending earmarked for the transformation, the state must undertake actions that would facilitate and ease the development of efficient markets. These actions must be comprehensive. The comprehensive nature of the changes requires the implementation of initiatives like stabilization, limited macroeconomic control over the economy, pricing and market reforms, institutional reforms (including

central bodies of economic administration, the reorganization and privatization of enterprises, de-monopolization, public sector and welfare reform, a reorganization of the tax system, a return to true local self-administration) and a reform of financial markets (Fischer, Gelb, 1991). The main substance of transformational processes initiated and managed by the state in all previously mentioned areas comes to deregulation, deflation, de-monopolization, privatization and microeconomic restructuring of an economy's production potential. All of the above mentioned tasks are implemented on the basis of the reorganized system of economic institutions.

The transition from a state-run economy to a market economy began in Poland after the agreements reached during the «round table» and the subsequent partially democratic elections in June 1989. Poland's re-attained ability to set its own economic system also helped accelerate the political disintegration process in other European socialist countries from the autumn of 1989 onwards. However, the very transformation of the economic systems in these countries, except for the territories of the former GDR, Hungary, and Poland, lagged to some extent.

A transformation based in a transition to a market economy is a process substantively different from economic reform. Economic reform is related to the change of modes of a given economic system. Unlike a transformation, economic reform does not change the logic of the economic system. It is limited only to changing the method and/or area of self-regulation and administration. In the case of a state-run system, changes in regulatory processes led to an expansion of the scope of economic instruments imposed by the state, namely: prices, interest rates, exchange rates, and taxes. Regulation is also exercised through administrative control via orders, bans, limits, and concessions or vice versa. However, in the case of dual systems formed around the market with centralized strategic coordination, reform is the process of increasing or decreasing the scope of state intervention in the economy.

The transformation of an economic system is connected with the death, elimination or decay of existing institutional structures and the emergence of new ones. Society and certain economic agents should benefit in various ways. Nevertheless, the final result is the improved efficiency in managing production resources. The entire transformation of an economic system should be organized to optimize the balance of costs and gains. The search for a path of minimal costs and/or maximum gains requires answers to many questions. Below we outline the most important of them.

1. Which one of the existing or theoretical examples of market economy should be the target of the transformation?

2. What are the possible ways for a transition to the selected model?

3. Which of the possible ways of transition to the desired market model would require fewer sacrifices while guaranteeing a realization of the goals of the transformation?

4. Which package of initiatives should be triggered and implemented by the state, in what sequence should these initiatives be implemented, and what pace is needed for their implementation to overcome the inertia of the old system and minimize the costs and risks of such initiatives?

2.1.2. The goals of an economic system transformation

A transformation based on a transition to a market economy is aimed at establishing a stable and clear coordinating mechanism designed to ensure macroeconomic stabilization, microeconomic efficiency, and economic restructuring and growth that would meet the needs of a given country's society. A review of the readiness and weaknesses of certain economic systems shows that the desired solution is the proven free-market capitalist economic model.

One should not pay attention to the proposed so-called «third way», meaning a market dominated by non-private ownership and elements of egalitarianism in the sphere of distribution. The shortcomings of this concept have been proven not just by economic research, but also seen in the experiences of certain systemic reforms in Central and Eastern Europe. Serious theoretical arguments against these concepts are set forward pointing out the inability of efficient markets functioning, mostly for capital and labor markets. (Dąbrowski, 1986: 109—115). Although the Chinese experience disproves this thesis, we must say that at the time of reforms in the 1970s China was a country with a social capital of a different cultural set (Kowalik, 2006), with an incomparably lower level of economic development than European socialist countries. The historical experience of free-market capitalist economies demonstrates that depending on cultural specifics, political traditions, the level of the civilization's development, and the external economic environment, there are functioning market models that differ in the degree of state intervention, the role of the public sector, the scope of guardianship and the state's social functions, as well as the level of commercialization in the public sector.

Practice and historical experience have created market economies with minimal government regulatory functions (e.g., the USA) and very powerful regulatory functions (India and certain «developing countrics»). According to dominant trends in the modern economy, starting from the

'90s economies have clearly tended towards deregulation and decreasing influence of the state on relevant spheres of economic intervention. However, as before, there are capitalist countries in which the non-private sector holds a significant though not dominant share (Israel, Finland, Austria, Latin American countries) and in which the public sector's share is limited or insignificant (the USA, the UK, most developed capitalist countries). Finally, there are also market economies with insignificant guardian functions of the state in the social sphere, like South Korea and other nations in Southeast Asia. There are also market economies that have succeeded in implementing or are implementing the concepts of social market economy with well-developed guardian functions of the state (Norway, Israel), and countries belonging to various European communities where centralized strategic coordination is used within the market economy to achieve social and economic unity.

The choice of a specific type of capitalism is influenced by theoretical polemics, as well as by the social and economic realities of a given country. Problems that emerge during the transition to a market economy can affect the modification in the area of economic intervention and the state's guardianship functions, irrespective of the idea and theoretical disputes on the matter. In Poland, the first non-communist government suggested a liberal capitalist state model, whose features are as follows:

- The prevalence of various types of private businesses;
- The existence of competition;
- External economic openness;
- A strong convertible domestic currency;
- The state does not influence businesses through bureaucratic regulation, yet ensures a stable framework for their activities. At the same time, the state is resistant to pressure by various interest groups and trade unions (Balcerowicz, 1992: 139).

According to the authors, the targeted economic model perceived in this manner should have been realized through:

- ♦ A rapid introduction of complete market mechanisms;
- ♦ A dramatic reduction of the state's role in the economy;
- ♦ The privatization within several years of most state-owned enterprises;
- ♦ The commercialization of public services;
- ♦ The introduction of free external trade and a rapid integration for Poland into the European Economic Community (EEC).

The aspirations of the architects of the transition to a market economy and integration with the then EEC architects resulted in a search for examples of economic law and order among the members of this group.

2.1.3. Mistakes made during the transition to a market economy

Empirical evidence shows that cognitive, informational, and axiological limitations play a significant role in the implementation of large-scale reforms. Knowledge of the consequences that are foreseen by the theory of regulatory mechanisms in the economy can never be exhaustive given the significant complications, changes of factors in time, and the probable emergence of new social phenomena. The transformation of an economic system usually includes a high variability of the main reasons for real processes and their relationships. Meanwhile, the probability and correctness of forecasts is conditional at least on the relative stability of proportions and the factors determining them.

Erroneous forecasts related to a transition to a market economy also emerged due to the inadequacy of theoretical market models in respect of specific social, political, and economic factors in post-socialist economies and a given country. In Poland's case, an additional problem arose: there were no prior examples of the selection of a transformation model. However, there were already examples of certain transformational initiatives that argued for price deregulation, the elimination of regulatory activities and distribution, the avoidance of deficit or inflation, the liberalization of foreign commercial policy in financial markets, or even privatization, at least in the postwar experiences of some countries. However, those experiences were generally on a much smaller scale and in a different historical context, i.e. in an already existing market environment and with far lower levels of control.

The experience in implementing some elements of the transformational process provided incomplete knowledge about the ways and consequences of implementing certain reforms in a market environment. At the same time, the consequences of recently introduced market mechanisms could be at most a matter for deduction and largely a departure from fact. This kind of forecasting drama implied that various simulations based on quantitative analytical methods limited one to a world of competing hypotheses, each of which could mistakenly have been taken seriously.

Even if an economic theory provided unambiguous arguments in favor of the ways to realize a permissible area of state economic intervention and its social functions in society, one should still bear in mind that scientific argumentation cannot be a sufficient prerequisite for the behavior of all economic agents that operate mostly with idiosyncratic knowledge and social capital that do not meet competitive environment requirements.

If one looks at market mechanisms in terms of their conditionality during a post-socialist economic transformation, it should be noted that the market in reality is actually the sum of possibilities for increasing individual and collective benefits, which differs from a centralized state-run economy with a paternalistic state and the sum of subjects with

various inclinations as to the use of market opportunities. In this context, we can easily see a qualitatively different structure of market opportunities in peripheral capitalist countries, or in the conditions of the newly established market as compared with regions being the business centers with many years of experience in using such opportunities.

In 1989, Polish society functioned in the framework of an embryonic development of market institutions, a significant and increasing de-capitalization of national property, large foreign debt, a destroyed belief in joy from labor, and populist sentiment in society and regarding the budget, overburdened with deficit. In these conditions, it was impossible to count on mass market profit-making opportunities and the ability of economic agents to realize existing opportunities. These and other circumstances became the reasons for motivational dilemmas that complicated and even made rational choice, as well as business success in rapidly developing entrepreneurship, impossible among business entities.

Nevertheless, the previously mentioned limitations could not be the reason for the cessation of the implementation of the program on the establishment of efficient markets. Save for temporary sacrifices, the market economic order is the only tested way of ensuring consistent growth in efficient resource use. However, a side effect of the new competition and liberalization may be the growth of disproportions in distribution. From this perspective, some economists believe that the state must take upon itself the most important social functions: from creating the conditions for equal opportunities for all citizens to the implementation of social justice, using methods that will not affect efficient market mechanisms. According to these critics, in terms of other mistakes that could emerge during the transition to a market economy, a state's intervention policy should be aimed, first and foremost, at achieving market balance, stabilizing prices, reducing disproportions in regional development, fighting unemployment, supporting the development of strategic industries (farming, power production), promoting exports, and other actions to ensure stable economic development. In that way, the advocates of acceptable state intervention referred to the widespread idea of a social market economy (SME).

Although the SME idea was put forth in a speech by T. Mazowiecki, the prime minister of the first non-communist government, and subsequently included into the new Constitution of Poland (1997)[1], the start to the reforms followed a path laid out by the Washington Consensus and its shock recommendations (Castels, 1996).

[1] Article 20, Constitution of Poland, confirms: «Social market economy based on freedom of economic activities, private property and solidarity, dialogue and cooperation among social partners, is a backbone of the economic order of Republic of Poland.»

2.1.4. Shortcomings of a gradual transformation

A dose of reforms that contained certain elements of market transition had already partially taken place in Poland in the 1980s. However, this experience could not be the basis for a change of the economic system, although it pointed out the chaos of a slow reform process. It was becoming clear that the entire process right up to the formation of a complete market mechanism had to be prolonged. This was a process of migration from administrative control to administration through economic regulators and a gradual elimination of external regulation in favor of self-regulation, even in the environment of dominant non-private ownership and hefty subsidies of state-owned enterprises. This gradual process of self-regulation took place in the '80s alongside the functioning of the old system with inherent contradictory internal mechanisms that had no self-regulatory capacity. The acceleration of reforms in 1988—1989 brought to light the weaknesses of the gradual, controlled process of market transition. The concerns on the part of the proponents of a comprehensive economic market transition in Poland — that the interpenetration of the inorganic elements of different economic systems leads to a buildup of weaknesses and at the same time a loss of the advantages of these systems — were confirmed. This occurs because over the entire period of gradual change, succeeding administrative instruments die off, while the gradual dismantling of control does not imply the presence of efficient markets. It is known that the market can function efficiently if we deal with a market filled with mechanisms, institutions, and instruments.

Gradual changes lead to the formation of a regulatory system temporarily deployed between a planned and a market economy, although without an efficient plan and efficient markets. This economic state is called the system vacuum. For the sake of explanation, it is worth noting that the elements of the system vacuum emerged as a result of the actual transformation as well as the shock process. The same occurred in Poland at the start of the 90s when there was insufficient time to introduce many significant institutional changes, while the regulatory mechanisms that had existed were not functioning. Specifically, this had to do with the financial markets.

Even in an extreme shock scenario of transformation it is impossible to avoid certain elements of the system vacuum due to the changes' independent processes, the inertia of the positions of the economic participants, and the limited competence of the bodies that control the transformational path.

The phenomenon of the system vacuum makes it impossible to eliminate the original reasons of crisis phenomena syndrome inherent to administration (a growing deficit, inefficient management, growth in consumer prices, a declining curve of economic growth and living

standards). The inertia of economic agents' existing behavioral patterns also makes it impossible. The pattern of this behavior manifests itself in the waiting game, populist demands to change self-financing regimes and the neglect by most economic agents of their active stances in the hope for forced concessions on the part of the government and a return to paternalistic practices under the influence of crisis phenomena[2]. The increased weakening of administrative control mechanisms, institutional incompleteness, and certain cultural and infrastructural conditions of efficient markets functioning results in inefficient non-market preconditions, a lack of innovation, boundless aspirations for monopolization, unbalanced demand, and inflation. Although a partial lowering of the deficit is possible here, it would be replaced by inflation. The limited regulation and increasing, but incomplete as previously, independence will not lead to economic balance, sustainable economic growth, and microeconomic efficiency. It is not out of the question that the choice of gradual systemic changes would have proven a «Sisyphean Task». A lack of effect from the current reforms would expose the entire process to the risk of a return to the earlier tested combinations of control and market and the contradictory functioning of both forms of regulation.

A gradual transition also requires the adoption of various alternative regulatory solutions for the transitional period, taking into account the large number of weaknesses of state-controlled regulators, and the incomplete functioning on the part of market mechanisms. These hybrid solutions complicate the behavioral logic of economic agents. The unpredictable side effects from mixing administrative instruments, economic regulators, and market parameters result in the need for additional actions. In turn, this implies more time needed for the transitional period.

A telling illustration of the futility of palliative solutions is the various versions of excess wage taxes, charges on foreign currency, and regulated prices in Poland. These and other examples show that until the regulatory sphere is dominated by instruments and solutions typical for control, there must be a process for the adaptation of newly introduced instruments and institutions that cause a decline in the competence of market parameters. Finally, the gradual process of market transition brings to life the effect of virtual changes.

2.1.5. Reasons for choosing the shock concept of systematic change

To avoid any negative consequences from an accelerating market transition and to reduce the waiting time for the appearance of positive effects from the transformation, the architects of the Polish transition recognized the need for a powerful impact at the start of the process.

[2] This process in more details described in: Wozniak, 1998.

They suggested comprehensive changes of regulatory mechanisms, based in competitive order logic. The comprehensive nature of the changes was aimed at making a return to centralized bureaucratic coordination using administrative regulators impossible, and to clear the way for a simultaneous formation of all markets.

The shock therapy concept called «Big Bang» was initiated by International Monetary Fund (IMF) experts. These methods for economic transition were recognized as the only right way and were being implemented in most post-socialist countries. According to the IMF recommendations, the shock therapy experiment was initially carried out in Poland under the scenario described in the governmental program on stabilization and system transformation, i.e. the so-called Balcerowicz program.

The sphere of system changes related to a shock transformation actually depends on the development of past reforms with a centralized bureaucratic coordination, the level of shock changes perceived by certain elements of the transformational process, the scale of accumulated social and economic problems originating from imperfect past economic mechanisms, errors in economic policy, and society's perception of inevitable sacrifices during capital accumulation and losses as a result of shock changes.

Poland, Hungary, Czechoslovakia, and Yugoslavia had favorable conditions for the implementation of shock therapy. In Hungary and Poland a rather broad sphere of horizontal connections existed due to years of reforms. Some market institutions and even a small private sector involved in small-scale commodity production were already functioning. Many-year experiments on reforming centralized planning and the lack of anticipated effects led to a decline in the attractiveness of the so-called «third way». Poland, like Hungary and Czechoslovakia, had the prewar traditions of the market and parliamentary democracy, as well as well-developed relations with global markets. Therefore, once political obstacles for a societal transformation disappeared, the intellectual elite and politicians in these countries were ready to undertake decisive and rapid actions to establish market economies. In practice, this primarily meant carrying out dramatic and swift anti-inflation operations, deregulation, and initiating a fundamental transformation of institutional structures, which were to open the way for an accelerated development of private entrepreneurship, the commercialization of state-owned enterprises, and a de-monopolization. However, the privatization process was protracted in time and has not yet been finalized.

Plans to reject a state-regulated market in favor of a social market economy were announced in Poland on October 12, 1989, in a

governmental program speech by T. Mazowiecki. However, they had been working on the governmental program on stabilization and system changes since the formation of the first non-communist government. Bringing the stabilization program and the government's reforms to life on January 1, 1990 implied that there was only one quarter to prepare the entire package of required laws (11 drafts of the main laws that would have changed the legal framework of the economy[3]) and to agree the program with the IMF. Prior to that, though, the Sejm and the Senate had to approve these laws and prepare the implementation of the relevant regulations.

This record-breaking term for the adoption of the legal framework for the functioning of a free market was the result of the politicians' desire to retain Poland's leading position in the system transformation process. Thanks to it, Poland counted on the possibility of discounting this position with external benefits. Mainly this had to do with maintaining the western countries' interest in Poland as long as possible to obtain funds to launch a planned stabilization fund, to finance a program on zloty convertibility, and to secure other forms of assistance in order to cushion the adverse effects of the accelerated transformation process.

External factors to the start of the transformation process aside, deteriorating domestic conditions became important, namely: rampant inflation, increasing economic chaos, and the related concern over society's ability to retract its support if the stabilization and transformation processes were to take longer. The economic situation — worse in Poland than in Hungary, owing firstly to the rate of inflation, the budget deficit, and related social problems as part of the consequences of the transformation — became a decisive factor in the acceleration of this process.

The possibility to accelerate the transformation also emerged for the former GDR, which, after being absorbed by Western Germany, could have almost immediately adopted the mandatory system of economic regulation and secured hefty financial and social assistance, as well as staff support.

Other CEE countries, the Baltic Republics, and members of the CIS (Commonwealth of Independent States) began forming the market from the level of administrative control, with a significant imperfection of market institutions, a lack of democratic traditions, and in most cases also from the sudden collapse of existing commercial relations based on the Council for Mutual Economic Assistance (CMEA), which was disbanded in 1990. In this instance, they had no market traditions or the traditions

[3] The parliament actually approved 10 laws. The Sejm returned the Law on Combating Monopolistic Practices for improvement.

had been lost. In connection with this, a rapid transformation was complicated by ideological barriers that exist until now, populist sentiment, and a lack of market economic awareness. In addition, in early 1991 they attempted to introduce more dramatic systemic changes in Bulgaria. Meanwhile, in Russia after several months of attempts to implement the shock therapy (in 1992) they developed a three-stage program to deepen economic reform (1995—1996).

2.1.6. Shortcomings of the shock approach

Poland's experience shows that the shock method for building a market economy is accompanied by considerably higher costs and more serious social problems than expected. First of all, it brings a decline in production, growing unemployment, inefficient steps in fighting inflation, declining living standards, and a growing resistance by society to the reforms. Against this backdrop, the initial euphoria in terms of shock therapy disappeared under the influence of increasingly broader public criticism. Conflicting expert opinions began to spread. The feasibility of the IMF recommendations was criticized. Critics often name the following as the method's biggest mistakes:

- The state's extremely passive role in social policy;
- The lack of a policy of proposals, which, using the instruments of state intervention and industrial policy, would protect the economy from excessive regress and society from an overly rapid reduction of jobs;
- The lack of a view to restructure enterprises, whose rapid privatization is impossible due to various circumstances;
- Deficiencies of institutional provision in the market transition, which opened the way to power for individuals from secret services and the nomenclature of the former communist party, and the consequent development of wild capitalism.

While designing the program for systemic changes, including shock institutional changes, one should bear in mind that there are two classes of changes different in the speed of their implementation, namely: pin-point (evolutionary) changes and periodical changes. Both classes are formed within the guided transformational processes, but periodical changes dominate only in autonomous transformational processes.

Discussing methods of implementing autonomous transformational processes is pointless since they live their own lives and are outside of state control. These processes are the result of deregulation by the so-called open space for the initiative, inventiveness, independent decisions, and risk-taking ability of economic agents. Their course is influenced only by available market opportunities, their structure, an individual's

ability to perceive, analyze, and implement these opportunities. The state can only play a supporting role, indirectly facilitating the development of a culture of market behavior, caring about efficient markets, the broadest possible access to education, by establishing legal boundaries for economic liberalism and the free functioning of all market institutions.

A description of the mechanisms responsible for the adaptation of market participants is beyond the problem analyzed herein. That said, knowledge of the mechanisms and obstacles to an adaptation will be useful in making relevant decisions as to the speed at which controllable elements of the transformation process should be introduced. Unfortunately, the dominant economic theories of the late 80s did not pay close attention to the role of inherited types of mentality and actions (of institutions), as well as to the role of social capital in the efficient adoption of regulatory mechanisms of developed capitalist countries.

Given the economic effects, the scenario for a controlled transformation process should be chosen based on a comparison of gains and costs from all possible options. Unfortunately, this type estimate can only be hypothetical in nature since it is impossible to establish with reasonable probability the differences in duration of certain autonomous processes. It would also be difficult to estimate the expected costs and possible effects.

If the effects of the transformation happen to show themselves after the establishment of efficient markets, while the excessive costs and benefits as compared with gains are paid over the entire period of the transformation, the optimal calculation would be reduced to choosing the option that can be implemented as quickly as possible. Unfortunately, this situation is not the most reliable one.

A comprehensive treatment of the market as an aggregate of institutions that enables the free use of market opportunities and the skill and ability of people to use these opportunities suggests that the timing of a full and effective market is determined by autonomous processes of transformation. It would be possible to accelerate the controlled processes of transformation only when the autonomous processes are also accelerated as a result of interpenetration.

It should be noted that the process of gaining new knowledge is very difficult. Various turbulent changes usually complicate this process, limiting the ability of people to understand these changes and to analyze them using the categories of rational choice. These restrictions are the reason for the dominance of conservative attitudes and an unwillingness to take risks. Under the circumstances, it is possible to concentrate the costs and funds in a shorter time span. It can be expected, therefore, that a large number of changes within a short time span creates the risk that society will not accept the heavy impact of the changes, which could result in social upheaval. To

ensure society's acceptance it is necessary to develop a scenario for sequential changes, i.e. prioritizing the implementation of the changes.

Prioritizing the changes, i.e. a gradual approach, should be subject to the natural relations with autonomous processes and their dynamics. The different speeds at which certain elements of the controlled transformation process can be implemented should also be taken under consideration.

Deregulation (economic liberalization) can be implemented the fastest. It encompasses an enormous range of initiatives, for example: the liquidation of regulation and distribution, the deregulation of prices for goods and services, financial and labor markets, and the liberalization of foreign trade. It should be mentioned that the process of deregulation also has to be accompanied by an appropriate stabilization policy given its consequences in the monetary sphere.

The process of institutional change can be started relatively quickly. Previous economic legislation is abolished and a new package of laws regulating at the constitutional level the market economic order is adopted. The adaptation of other countries' solutions in this area can reduce the whole process of the preparation of the relevant package of laws. However, the institutional changes within the new market order aimed at the promotion of market thinking and behavior are usually undertaken in the following generation. Institutional changes are also coupled with the emergence of private enterprises, banks, stock exchanges, insurers, self-governing institutions, the treasury, institutions charged with social and unemployment expenditures, and others. All of these initiatives require significant capital and the involvement of professionals with new skills that are acquired only partially during training, and developed mostly after many years of professional practice. In this context, a dilemma emerges between the insufficient professionalism of the management personnel in various spheres of public life and the need to introduce a new style of work at various institutions.

2.2. Deregulation of economic activities

2.2.1. Substance and basis for deregulation in post-socialist countries

Deregulation, or liberalization, is the process of creating space for the free operation of market forces by abolishing administrative burdens and regulations norms set by the state and determining what, how much, and how to produce and distribute. The centralized coordination of economic activity based on vertical relations can be replaced with market coordination based on freedom of transactions (horizontal relations).

Possibilities for the spontaneous formation of instruments, institutions, and mechanisms of a complete market are the result of the process. Its goal is as follows:

- Create the economic basis for rational solutions by enterprises, employees, households, and the state;
- Purge the economy of economic agents that use resources inefficiently;
- Reallocate the released resources from less to more profitable industries, which will be demanded in the future;
- Create the basis for innovation and competitiveness of domestic entities on foreign markets.

Deregulation is the initial and most basic element of the economic system market transformation process. Its extended sphere of initiatives is implemented in two parallel phases.

Phase I encompasses the dismantling of the system of administrative and regulatory norms, including:

- Abolishing regulation and distribution of property as well as consumer and producer services;
- Abolishing mandatory intermediation in sales;
- Eliminating the administration of prices, salaries, interest rates, foreign exchange rates;
- Eliminating trade protectionism (administrative instruments of the domestic market protection against external competition). This is also the process of the legalization of the new economic order that facilitates the free circulation of consumer and industrial goods, services, capital, labor, and land.

This phase, like the act of nationalization, is implemented administratively, i.e. based on the decision of legislative bodies (the parliament). It may be rapid in nature, i.e. radical liberalization, which covers all areas of the economy. It can also be a gradual process realized in certain market segments. For example, Poland in 1989 abolished regulation of the sale of meat and meat products, limited budget subsidies for food products, and subsequently ended government control over prices for staple food items.

Phase II — the formation and introduction of self-regulating instruments, i.e. economic parameters. It is a laborious process during which the «adjustment» of economic parameters numerical values takes place, often through a trial-and-error process.

Both phases begin simultaneously, but the second one lasts many years. It is also accompanied by other changes related to the transformation like privatization, public sector reforms, and other institutional changes facilitating the formation of efficient markets.

At the same time, the adjustment of parameters is mostly autonomous in nature and in this case is the result of cooperation between economic agents. This phase can also be influenced by the processes of state regulation directly (price floors for certain agricultural products, controlled prices for other strategic goods, concessions for certain types of economic activities, etc.) or indirectly (active taxation, monetary and trade policies). An adjustment of parameters may also take place due to the state's gradual deregulation or economic activity (government procurements, investments).

From the elimination of administrative restrictions on economic freedoms until the formation of justified parameters[4] an immature market economy will function on certain markets. An incomplete set of market mechanisms at this stage of its development and inaccurate parameters can lead to additional unwanted problems (correctional inflation, production setbacks, disruption of traditional cooperation ties, etc.). A program of macroeconomic stabilization is launched in parallel to mitigate the negative consequences of deregulation. The combination of deregulation and stabilization during the transformation is also necessary because of the significant deficit traditional on all markets. The large social pain produced by the «double shock» from liberalization and stabilization connected with the correction in prices and decline in real incomes gives rise to questions about the sphere of deregulation, the sequence of these changes and how to combine it with anti-inflation measures.

2.2.2. Deregulation of the commodities markets

Establishing a complex system of market prices in Poland began against an already functioning space for certain free-of-control prices which mainly governed the bazaar trade with goods produced by small individual farms, small-scale handicraft production, illegal currency trade, and «under the table» goods. Prices for other goods and services were imposed centrally or through producers, but based on an algorithm established by the central government. Prices for most food staples were only liberalized in June 1989, i.e. 50 % of all goods were free of price controls. The large-scale elimination of government price control came only on January 1, 1990. Prices were free from controls on nearly 90% of goods now. After two years of reforms, the government only controlled prices for gas fuel, electricity, basic medicines from a state-set

[4] The accuracy is connected with authentic, fast and publicly accessible information about consumer needs and production costs which makes it possible to balance the markets.

pharmacological list, central heating, hot water supplies to apartments, domestically produced alcoholic beverages, utilities, railroad and Automotive Communications Company rates, and most health care benefits.

The liberalization and dramatic limitation of subsidies resulted in changes to the basic structure of prices and transformational hyperinflation that amounted to 586% in 1990. In 1992—2000 it decelerated to two-digit growth annually and systematically declined even further[5].

The supply system for enterprises together with the liberalization of prices saw a radical transformation. Centralized balances stopped regulating the turnover of resources. Mandatory intermediation in the turnover of materials supplied as well as regulation and priorities systems were abolished. Also abolished was the centralized administrative control of foreign trade through the introduction of a cap limit for exports and imports, foreign currency distribution, extra payments, loads and tax benefits. The key instrument for the allocation of resources became the price adjustment mechanism formed under free market conditions.

In the area of foreign trade, entities were given the right to export and import without licenses. Licenses were retained only for imports of flammable materials, and trade in weapons, military equipment, and radioactive isotopes. Licensing trade with those goods is a common practice globally. It should be also noted that initially, limits were set on exports of a dozen raw materials. Along with a normalization of the domestic market situation other restrictions were introduced. State controls governed exports of coal and certain types of fuel. It goes without saying that there were mandatory restrictions stipulated by international commitments like, for example, on certain steel and metallurgical products (EEC, the USA), advanced technologies, employment quotas, construction materials (Western Germany), as well in terms of imports from countries under international embargo, including alcohol, liquid fuel, toxic waste, some automobiles, and engines.

Free access to foreign currency and export returns from January 1, 1990 were regulated only by the constant currency rate gradually introduced in 1991—2000. At the same time, the expanded system of export-related tax benefits was abolished.

Customs tariffs, which were used to spur competition through periodical suspensions and reductions in customs rates (about two-thirds of tariff items) became the key instrument for regulating import volumes and structures. The liberalization of customs rates, however, proved excessive. It resulted in pushing domestic production out of the national

[5] All statistics in this article are from GUS statistics annual, for more details, please refer to: Wozniak, 2004, p. 81.

market. In mid-1991, modern customs tariffs (maximum tariffs) were introduced that adhered to EEC standards and basic norms defined by GATT. Contrary to the government's expectations, these decisions did not spur stronger competition, a slowdown in inflation, and restructuring due to their negative impact on the already poor financial performance of domestic producers. In this situation, the actualization and modification of import customs tariffs seemed necessary. Revised customs tariffs were introduced together with a tax on goods and services (VAT) on July 5, 1993 after their amendment. From late 1992, a 6% general import tax was replaced with an additional duty; in 1994, a decision was made to introduce leveling duties for importers of agricultural products to protect domestic agricultural producers against excessive competition.

In relations with former CMEA countries, hard currency cash settlements were introduced instead of the transferable ruble. This decision, instigated by the decay of the Soviet economy and its exhausted payment capacity, decreased trade turnover with former USSR countries. The later rebuilding of economic relations with these countries, however, ran into serious difficulties. These were caused by the non-convertibility of currencies and their partners' lack of foreign currency resources, and in the case of Russia — by certain incidents at various times, that is by political factors. In order to improve trade and economic cooperation with the region, trade and economic agreements with certain republics of the former USSR were signed.

Also in relations with developing countries, clearing settlements were eliminated in favor of hard currency settlements. To ease access for Polish products to global markets the government carried out activities aimed at increasing quantitative restrictions (textiles and steel products to the markets of the European Economic Community — EEC) and reducing tariffs under the GATT system of preferences. The most important component of these actions was bringing to fruition the trade section of the Agreement on EEC Accession on March 1, 1992. As a result, over a 10-year period a free trade zone with restrictions in the agricultural sector was introduced. The goal of an asymmetric reduction of customs tariffs in Poland's favor should have been to temporarily protect domestic firms from bankruptcy and facilitate competition within a free trade environment. A similar agreement was signed in late 1992 with countries of the other European community — EFTA and CEFTA.

In September 1993 the government adopted an export support program that was to create the infrastructure for financial support for export, which, inter alia, also included providing collateral for loans and insurance for export credits against commercial risk, as well as supporting exports in certain areas.

2.2.3. Deregulation of the labor market

Deregulation in the labor market is based on limiting intervention by the state and monopolistic structures in its operation to increase entrepreneurs' freedom in creating volume of employment, time and forms of work, as well as wages.

The key areas of labor market deregulation are:

- The minimum wage, its relation to the average wage, regional differentiation by employee age and qualifications;
- The competence of trade unions in discussing the degree of growth, differentiation of wages, and employment protection;
- Protection against mass and individual dismissals;
- Social security issues (types, amount, availability of benefits and their relation to the lowest salary, and the maximum period of assistance).

These goals are not limited just to the introduction of a competitive system in the labor market. To limit the inefficiency of free competition markets, represented by the tendency of very low demand for jobs and disproportional wages, poor conditions of labor safety and occupational health, the requirements of international organizations should be used in the deregulation process. In the case of Poland, this primarily has to do with the International Labor Organization (ILO) Convention from 1979. Also taken into consideration are recommended social security rules stemming from the European Social Charter (1969), ratified by Poland in 1997, and from draft OECD decisions that facilitate labor market flexibility. The efforts undertaken in 1991 to join the EC also required the adoption of general labor market fundamentals.

The talks that began in 1989 on the development of a government stabilization program and system transformation gave rise to two opposing positions on the labor market. They both dealt with the issue of the deregulation of wage mechanisms. Advocates of comprehensive market mechanisms wanted to abolish existing labor control methods and called for a shift from a focus on wage growth deceleration and prices to monetary policy. Foreign advisors and IMF experts recommended freezing wages completely in order to efficiently curb the inflation spiral caused by deregulation in other branches of the economy.

The government modified only the existing mandatory system of flexible control over wages using a tax on excessive wages. They forecast an almost fivefold lag of wage growth to prices in order to ease inflationary pressures and the inherited inflationary addition that came in the form of consumer queues. Monthly wage growth could not exceed 0.2—0.3 times the expected consumer price growth. In reality, companies

could raise wages above the centrally established norm, but that would mean an additional tax on corporate income for excessive wages in the range of 300—500%.

The dramatic fall in demand and persistent recession, contrary to government expectations, forced the authorities to temporarily ease the wage regulation coefficient. Employees' subsequent re-indexation demands that included strikes proved that this wage control mechanism cannot be efficient, since it drags the government into wage disputes and contributes to wage disparities. Despite the announced liquidation of this wage regulator, the government's concerns regarding excessive wage and unemployment growth resulted in later Cabinets only daring to adjust the wage growth coefficient and present modified versions of the tax on pay increases.

The income tax on excessive wages still contradicted the idea of deregulation, but it was necessary to ease pressure from the workers' unions on wage increases, which only served to provoke inflation. However, it appeared that this mechanism countering the inclination to eat away at profits was very restrictive, depriving enterprises of up to 39 % of total financial income in 1991.

Another limitation of labor market deregulation was the so-called indexation law that provided for the automatic, general, and complete indexation of any salary. The hyperinflationary nature of this law became the reason why — contrary to the trade unions' position three months later — they introduced the leveling indexation, which after modifications prompted by market conditions, is still active today.

While stressing the excessive economic liberalization, inter alia, critics of Balcerowicz's Plan pointed out that the adopted wage control mechanism led to an over-reduction of household incomes. Only after the finance portfolio was passed to G.V. Kołodko, the author of the liberal stabilization policy macroeconomic parameters approbation concept (Kołodko, 1990), a decision was made to reject the wage control mechanism in 1995. Wage control was entrusted to the Trilateral Commission which included representatives of trade unions, employers, and the government. This democratic, but centralized, contractual system of remunerations made it possible to set the same wage growth rate for all industries. Centralizing the negotiating process calmed the labor market, but under the influence of workers' dominant interests wages increased irrespective of the companies' financial standing, often on account of employment.

Only slower economic growth and a sharp increase in unemployment from 2000 persuaded trade unions to back down from wage increase demands in return for keeping existing jobs. Although trade unions take

part in internal consultations, starting from the employer through the sector and regional organizations up to the national level, nevertheless, due to their significant politicization, weak employee unity, and the significant discord among trade union organizations[6], they are unable to perform their coordinating functions in talks on remuneration and the demands of conventions. At the same time, the renewed trade union law from July 2003 limits the powers of trade union organizations that include less than 10 members.

The protection of workers' interests improved only after the implementation of the EU Council's Directive from September 22, 1994, 94/45/EC through the approval of the European Trade Unions Law dated May 22, 2002, (Dz.U. no. 62) dealing with transnational enterprises.

In 1998—2003, further reforms aimed at reinforcing labor market self-regulation mechanisms were implemented. They were provoked by rapid unemployment growth after a temporary reduction during the implementation of the program on support for market conditions in 1995—1998. In 2003, the unemployment rate reached 20% of the active working age population in Poland. At the same time, the labor market was characterized by the absence of a more prominent reaction of supply and demand to the institutional changes made for the flexible functioning of markets.[7].

In addition to demographic growth pressures and fluctuating market conditions, factors that contributed to high unemployment figures were:

- The poor functioning of mechanisms for wage negotiations;
- Unfavorable labor regulations related to social security;
- Prohibitively high labor costs for the creation of new jobs;
- A lack of traditions in using flexible forms of labor organization and non-standard forms of employment.

A substantial part of Polish legislation dealing with social security takes the ILO Convention as an example and to a small degree departs from the norms adopted in the EC recommended by the European Social Charter.

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[6] According to European Commission data in 2002 about 15% of all employees were in trade unions. However, trade unions were divided into 3 large confederations. At the same time 7,000 organizations did not belong to any confederation. That type of dispersion was beneficial for employers.

[7] In 2003—2004, after amendments to the Labor Code, Poland permitted all non-standard forms of employment, including flexible forms of labor organization. They include part-time employment implying incomplete working hours, dual job-holding, employment at a temporary work agency and borrowing of employees, benefits related to remuneration in favor of one's own small enterprise, work on demand, work at home and tele-jobs, incidental jobs, the performance of a job by several individuals, weekend employment. It is also possible to perform work without a fixed start and end, with working hours with breaks, intended for tasks without a mandatory portion of time, with extended working hours, compensated with days off.

It should be stressed that the minimum salary in Poland has been in place for more than 50 years[8]. Since 1987, the minimum salary has been indexed annually to prices for consumer goods and services, or quarterly in times of high inflation. As of 1991, the level of the minimum wage has been set as a result of agreement. The wage is generally set at 40% of the average national salary. The return to annual valorization in 1999 was due to a relative decline in the minimum salary as against the average salary. Although Poland's minimum wage is one of lowest among EU countries, this does not discourage youth from a rapid return to the labor market and from keeping independent households. In 2003, the minimum net salary was just 15% higher than the unemployment benefit. This contributed to an outflow of under-educated and young individuals to the shadow economy and the formation of high official unemployment numbers. Unfortunately, there is no unemployment insurance in Poland and unemployment benefits are paid from:

- Mandatory Labor Fund contributions made along with social security payments;
- State budget subsidies;
- In pre-retirement benefits payable to those with a legal unemployment status and the prerequisite work experience and age. Unemployed individuals that meet the criteria can forego registration with employment centers. This kind of regulation does not inspire individuals to search for a job.

Like other EU countries, Poland has a well-developed social aid system that can be used if an individual's difficult financial situation is proven by the relevant documentation.

The Labor Fund, financed by employer contributions (2.45% of salaries paid), additional state budget subsidies, loans, and other sources, had minimal resources at its disposal[9], of which only a small portion was intended for active unemployment programs. In public debates concerning the inefficient deregulation of the labor market in Poland, close attention is paid to the problem of the tax system connected with the excessive mandatory load on labor. Social security contributions amount to 45% of the total payroll, while the minimum personal income tax threshold is 19%. The high employment tax is a negative feature of the Polish labor market. In the late 1990s, Poland's wage tax stood at 42.8%, compared with 19.5% in the OECD and 15-23.5% in the EU. Total

[8] When it was set in 1956, the minimum salary belonged to the main salary in the lowest category as to the wage level.

[9] In 2001—2002, only up to 7% of resources were allocated for active programs, while in the EU efficient programs absorbed 30-50% of resources allocated for labor market regulation.

taxation including income and consumption taxes amounted to 80%, compared with 45% in the OECD and 15-53% in the EU.

Due to the relatively high minimum wage, the tax load represents a significant obstacle for the creation of new jobs, which to a significant extent contributes to the development of a shadow economy. According to some estimates, more than one-fifth of Poland's population of active working age is employed in the shadow economy (Schneider, Burger, 2004). Taking that into consideration, in July 2007 insurance benefits were cut by 3%. Additional labor cost cuts are also expected. At the same time, requirements were formulated to reform taxes, specifically an income tax reduction and the introduction of unemployment insurance.

Despite the weaknesses of Poland's labor market compared with some EU countries, OECD reports nevertheless say it is liberalized at an average level for countries-parties of the same grouping, and at a higher level than in EU countries. This position is supported by a synthetic index of legal employment protection — EPL (*Employment Protection Legislation*), as well as other indexes. In 2001, the EPL in Poland fell to 1.5—1.8 (by 0.2—0.3) compared to 1998 (Socha, Sztanderska, 2004).

However, attaining the level of legal protection in labor markets typical for OECD countries does not imply that the deregulation process is complete. Specific features like the highest unemployment rate in Europe and a relatively high differentiation by region, age and education, the low professional activity of the population, and the high emigration of the most qualified part of the workforce questions the efficiency of the deregulation experience in EU countries. Questions over the efficiency of this experience are also spurred by fact that Poland's labor market creates significant problems related to social policy and the budget balance. The decrease in unemployment in mid-2007 to 9.8% was the result of Poland joining the EU and the subsequent emigration of migrant workers, as well as positive market conditions. Nonetheless, nothing suggests that further efforts to deregulate the labor market should be abandoned.

The high costs related to employee dismissal limit competition between the employed and job seekers, and it lowers the chances of the younger generation entering the labor market.

The centralized mechanism of wage negotiations weakens an entrepreneur's bargaining position and contributes to growing labor costs. In this regard, it is necessary to broaden the possibilities for decentralized negotiations and depart from the system of collective labor. The decentralized method of setting wages, which provides for the formation of wages at the enterprise level and deregulation aimed at cutting layoff costs, is stipulated by the major institutional conditions of the liberalization of labor markets, i.e. measures increasing competition at the

regional level between employed and unemployed individuals and protecting the latter from prolonged unemployment.

Poland's accession to the EU came along with increased inflows of foreign capital and resources from structural funds, and the implementation of a development strategy aimed at social and economic unity, whose boundaries are defined by the revised Lisbon Strategy. It opens the way for faster economic growth and consequently the possibility for public finance reform. If the fiscal reforms postulated by business communities and liberal experts are carried out, it will also immediately increase labor market liberalization. However, there may emerge a new problem of excessive and rapidly expanding emigration (in terms of the needs of the economy) of highly skilled migrant workers, as well as an undersupply on the labor market of industries that ensure the development of the knowledge-based economy. This suggests that incentives are needed that would liberalize the labor market and facilitate immigration to Poland, in order not only to compensate for the outflow of human capital to EU markets, but also to overcome the consequences of the demographic decline, which is intensifying.

2.2.4. Deregulation of financial markets

Implementing a system of market signals facilitating the efficient allocation of production resources would be impossible without financial market deregulation. The cost of money as a special commodity and its supply cannot be formed freely on the market, since it stipulates not just the efficiency of allocation, but also changes in prices, and hence investment risk, the accessibility of goods and services for consumers, and for producers — production factors (the general equilibrium), the level of the budget equilibrium (the internal equilibrium), the trade balance, and money turnover (the external equilibrium). These various implications of changes in the cost of money and its quantity in circulation require centralized strategic coordination adapted to the functioning of market logic and independent from politicians.

Although economic theory discovered the rules of accommodation of the quantity of money in circulation to ensure equilibrium on all markets with planned growth, these rules can only be applied with the legal and constitutionally guaranteed autonomy of the central bank. For that reason, the post-socialist transformation required financial market deregulation and the introduction of new rules for conducting monetary policy.

It is worth remembering that the socialist economy was specific in that there was only a partial connection between commodity flows and cash flow in the sense prescribed to it in the market economy *(money in*

circulation). It was due to increasing subsidies to producers and consumers. Subsidies in the socialist economy led to a declining need for money in circulation. The turnover of subsidies (allocation of cost-free funds or partial payments in kind across areas covered by subsidizing) required no money. Non-monetary mechanisms of distribution, i.e. various forms of distribution and regulation, were enough for this purpose. As a result, it led to:

- Understatement of work costs, because only the asset cost to be paid was reflected in the wage;
- A breakdown in the clear relation between the flow of cash assets and other subsidized assets and financial resources.

The subsidy system and the lack of capital markets connected with soft «budget limitation», i.e. the basis for the issuance of money, which was subject to automatic adjustment to the needs of the budget and enterprises specified in the plans, resulted in a relative surplus of money and in suspended inflation, which was clearly seen in long queues for goods.

The liberalization of prices for property and services, the abolition of subsidies, and the sale of state-owned companies' property to domestic buyers resulted in a situation where there was constantly insufficient money to service the economy. This had to lead to a disruption in production. In other words, a crisis emerged connected with a transformation shock. However, it was caused by the deficit of money provoked by the liberalization along with the economy entering competitive markets. The resources required to service flows of goods in the market turnover were insufficient and difficult to estimate. On the other hand, the abolition of understated prices (subsidies) through the market mechanism of price accommodations would bring corrective inflation. Since prices as a whole are composed of directly and indirectly interdependent elements, then, accordingly, it would lead to accelerated price growth. Untangling this complicated knot of correlations that came about due to liberalization and the introduction of capital markets required an adapted monetary policy that would take into account a controllable inflow of money into an expanding sphere of monetary circulation.

In this case, financial market deregulation had to be combined with a complicated, specific monetary policy. It was necessary to start from:

- Legally guaranteeing the independence of the banking system and clearly outlining the state's and its bodies' competencies in their influence on money and capital markets;
- Ensuring the organizational detachment of the central bank as an issuer of currency, banks servicing market participants, and their economic and mutual independence.

Due to these initiatives, the state was cleared of economic responsibility for independent decision-making by banking institutions. Charging the banks with the economic implications from activities carried out at their own expense was aimed at introducing a new way of thinking in banking activity related to efficient markets operation. The implementation of this logic is a condition for balancing credit markets and achieving balanced money markets through the function of the interest rate.

Systemic democratic decisions and the state's consequent control over democratic institutions that expressed society's interests and aspirations were supposed to protect the banking system against attempts on its autonomy. Nevertheless, this condition is not sufficient. The system and the organizational detachment of the central bank from the state administration required that the constitution provided for the positional subordination of representative bodies to the central bank. This provision posits that the bank's governor should be elected for a period longer than the term of the parliament (in Poland six years to the parliament's four years), and be judged and dismissed by parliament. To ensure the independence of monetary policy it was also necessary to implement legal restrictions as to financing the budget deficit from the central bank's (the National Bank of Poland, NBP) resources.

Financial market deregulation can be broken down into four phases:

1) The establishment of the institutional base for the functioning of an independent banking and monetary system (1989—1992);

2) The development of actual financial market deregulation (1993—1997);

3) The introduction of regulatory financial market standards mandatory in the EU (1998—2004);

4) Preparation for the possible implementation of regulatory standards mandatory in the euro-zone (Economic and Monetary European Union).

The first phase was characterized primarily by a nominal convergence of financial markets towards the standards of deregulation typical for a market economy. Deregulation in the banking system and the monetary sphere began in early 1989. The NBP was separated as the central bank and independent deposit and credit banks were established. At the time of the adoption of the new banking laws in Poland (December 31, 1989) there were 15 state-owned banks or joint-stock companies of the state treasury and over 1,600 cooperative banks combined into the FB (Food Bank), in addition to the NBP. The new banking legislation allowed individuals to establish banks as joint-stock companies. Under the new legislation in 1989-1991 almost 70 licenses were issued for new banks in the form of joint-stock companies, including with the partial participation of foreign capital.

However, the actual deregulation was rather limited. The NBP stopped lending directly to enterprises, opening and maintaining bank accounts, and cash settlements. It kept the functions of regulating money supply, currency issuance, the management of public debt, and the role of the lender of final resort (providing credit facilities to deposit and credit banks, setting the interest rate on these credits, and accumulating the mandatory reserves of credit banks).

The central bank's operating activity was limited to state budget cash servicing, accepting reserves of merchant banks, crediting their activity and settlements, issuing and circulating its own and government bonds, managing the central foreign currency reserve, as well as performing foreign currency transactions. The central bank's exit from credit and deposit operations involving enterprises required the transformation of its operational units into separate commercial banks.

A necessary element of financial market deregulation is the introduction of the interest rate market mechanism. However, this mechanism is not sufficient to ensure the inflation-free inflow of money into the economy. Precisely because of it, the market interest rate shall be regulated by the central bank through the discount rate.

The role of the discount rate and the importance of other direct instruments for regulating money supply are often underestimated. Companies' different reactions depending on their production volumes and assets, market positions, and the capacity to use technologically advanced products, as well as the openness of the money market and the differentiation of domestic and foreign interest rates are the main factors that can lower the efficiency of changes in the discount rate.

A high interest rate is reflected in the price of goods in relation to the high degree of monopolization of production. A considerable increase in the interest rate as the result of a liberalization of prices caused a decline in economic activity, contributed to a weakening of the domestic currency, if it was expedient to get rid of foreign currency to increase imports or limit exports. This created difficulties in balancing the external account. Allowing for the previously mentioned drawbacks of the interest rate and its mechanism of control through the discount rate, certain administrative instruments of control over the money supply were retained for a certain period. This decision was also motivated by a lack of experience in the efficient use of monetary policy instruments adapted to the market economy, and the elevated risk of inefficient monetary policy suggested by monetary theory[10].

[10] M. Friedman, the monetary theory author, proved that the nominal pace of change in the amount of money in circulation must keep pace with real GDP growth. See: Friedman, 1953.

Limiting control over the monetary base to indirect instruments, as suggested by economic theories, was not able to protect the economy from large payment arrears. Unfortunately, difficulties with estimating the money supply and problems identifying sustainable and short-term changes also hampered the efficient utilization of direct methods of influence on the monetary base. From this perspective, it seemed appropriate to use direct and indirect instruments of control over the money supply. In practice all they did was limit lending by introducing a so-called ceiling for loan refinancing for the 14 largest merchant banks, as well as by setting a floor for the deposit rate and a ceiling for the interest rate. These additional interventions were in agreement with annual NBP-set monetary policy principles, which were adopted by the Sejm and which targeted inflation.

The first phase of financial market deregulation was coupled with the adoption of a legal framework for the functioning of its other segments, i.e. jointly with credit markets and markets of production factors, real estate, and securities in order to ensure the efficient allocation of limited financial resources. The deregulation of these markets was driven by the fact that the state administration cannot propose less risky investment projects than capital market experts.

Securities markets offer larger profits than bank deposits, as well as the fastest inflows of money and its accumulation from dispersed owners. The stock exchange, efficient in its capacity for information and transactions, is a barometer of the signals of an efficient allocation of resources.

With that in mind, the Warsaw Stock Exchange was established in April 1991 as the main market for trades with large capital assets. However, while the stock exchange was dominated by small investors it was unable to play a significant role. The development of the securities markets was limited by the degree of private property in the economy. Meanwhile, the domination of non-private forms of property ownership restricted the freedom of entering the market, and limited capital and its turnover, because the investment processes were supported by the state budget as there is no market turnover of real property between state-owned enterprises.

Privatization also highlighted problems related to insufficient institutional money and capital market infrastructure, a lack of experience in balancing the central budget through open market operations, and a lack of experience on the part of economic agents in dealing with securities.

However, certain threats also emerge with the development of a securities market. The securities market can, although it is not supposed

to, become a source of inflation due to the accelerated circulation of money and activation of markets. Besides, weakening financial discipline on the part of borrowers and inclinations to issue replacing credit money can emerge, which leads to a breakdown in the monetary equilibrium and difficulties in regulating money supply. The risk of debtor insolvency and losses planned by investors can also grow. To minimize these threats it was necessary to use the experiences of developed market economies and introduce the appropriate systemic and legislative checks that would provide protection and determine the required criteria and organization of the circulation of securities. It was also worth re-examining, at least during the formation of the securities market, the expediency of administrative and parliamentary supervision, as well as the participation of public authorities in market operations. It was impossible not to heed warnings from experts that this integration, however appropriate it may be, contains a real threat to over-regulating money and capital markets given the natural inclination of the administrative machine to expand the degree of its control. It is also possible that the government was involved in a game of interests and that there was corruption on the part of its subordinated institutions' employees. For that reason, there arises the need for the legal formalization of the government's and its bodies' competencies in their influence on money and capital markets. Due to the elevated risk that monetary policy could be subjugated to the private interests of the state bureaucracy and financial technocrats, a decision was made to leave it under the control of the representative bodies. Supporters of broad economic interventionism demanded that the authority to issue directives, supervise compliance, and even plan money supply remain in the competence of the government and parliament. At the same time, supporters of broad financial market deregulation stressed that attaining the final goal would not guarantee the protection of the banking system from the influence of dominant interest groups represented by democratic structures. However, they adhered to the interventionism postulates until the adoption of new banking legislation in 1997.

1993—1997 was the period in which the central bank learned to implement and use more widely open market operations, which over time became the most important rapid response instrument to changes in money supply. This was also the period when mandatory reserves were gradually losing their significance, and the central bank's control over their levels became limited. The transition in 1994 to a strategy of interest rate control enabled commercial banks to dramatically reduce interest on deposits, which stimulated the growth of money supply. But a very high effective interest rate was maintained that considerably exceeded enterprises' earnings yields.

The amendment to the **Law on Banks** and the Law on the NBP introduced in August 1997 launched a new stage for the functioning of financial markets in-line with the principles of the European System of Central Banks. The newly adopted Constitution (1997) banned the possibility of covering the budget deficit by delaying liabilities using central bank resources (article 220, law 2).

An independent executive body was established that determined central bank policy — the Monetary Policy Council (MPC), including nine individuals and the NBP chair, for a six-year term, annually approves monetary policy guidelines and submits them to the Sejm for examination. Under the new monetary policy the MPC eliminated intermediary and operational tasks, and curbing inflation was made the final goal; its consistent implementation reduced inflation in 2003 to near the levels recommended by the Maastricht criteria. For its implementation in 1998, a so-called interest rate corridor was introduced, where the ceiling determined the lombard loanland the floor determined the reference level. A decisive reduction of the mandatory reserves level (to 4.5% in 2001) and expanding open market operations with short-, medium-, and long-maturity securities meant establishing regulatory standards that met the best international standards in every respect. As a result, after a dozen years inflation was fully under control and stopped threatening the stability of real economic processes.

Financial market deregulation would have been incomplete and far from sufficient for the stabilization of inflation without a liberalization of the domestic currency pricing mechanism. After the introduction of a stable exchange rate in 1990, the domestic currency weakened in May 1991, and subsequently in October 1991 a mechanism of changing the exchange rate (crawling peg) connected with changes in the interest rate and CPI was introduced; however, following the year-end they introduced a crawling band of +/–7 %, which was widened to +/–10 % in February 1998 and +/–30 % in late March 1999. A rate without a fluctuation corridor was fully implemented on April 11, 2000. This meant that the Polish currency's pricing mechanism became completely liberalized in terms of IMF standards.

In 2001, the Polish currency met the convergence criteria required for accession to the Economic and Monetary Union (EMU)[11]. Subsequent changes in the area of Polish currency convertibility were introduced together with the implementation on October 1, 2002 of the new **Currency Law** (Dz. U. 2002, no. 141, para 1178). This legislative act eliminated the majority of existing restrictions, specifically those

[11] Poland did not meet the budget deficit criteria.

concerning the European Union and other countries from the OECD and the European Economic Area. The non-market regulations dealt only with:

- Providing residents with independence in other currencies, except for converted currencies or the Polish zloty;
- Export and international transfer of gold or monetary platinum;
- Export and international transfer of national or foreign payment resources exceeding EUR 10,000 in value. Other restrictions existed for other countries.

Establishing the freedom of capital movement between Poland and the EU (according to Art. 73b, Maastricht Treaty), together with the implementation of other freedoms, meant that Poland joined the EU common internal market. Poland announced its membership in the EMU (Economic and Monetary Union), compliance with European Central Bank regulations, and the transition to the common currency — the euro. EMU membership implies the waiver of sovereign monetary and exchange rate policy. In 1999, the European System of Central Banks (ESCB), including the central banks of all the EU members, assumed the responsibility in this area. The ESCB makes decisions on interest rates, but without the participation of nations that are not parties to the EMU agreement. The ESCB's independence from governments and other EU institutions is meant to ensure the efficient protection of the value of the euro. An additional guarantee of stability is the commitment to comply with the Stability and Growth Pact of 1997, which reflects the Maastricht stability criteria.

2.2.5. Public sector deregulation and decentralization

Public sector deregulation is currently a common global process. It is coupled with an expansion of liberalization, intense competition, and new rules of global capitalism. To cope with competitive regimes imposed by transnational corporations, the public sector space must be reduced in countries with extended features of a «welfare state», which is especially poignant for post-socialist countries and the EU. However, in the case of a country seeking EU membership, any changing of the rules of the game between the state and its citizen must take into account additional objectives coupled with the need to respect the principles of subsidiarity, Maastricht Treaty requirements, mandatory rules of regional policy, and the use of structural funds and recommendations of the European Charter of Local Self-Government (since 1985).

In addition to deregulation efforts aimed at economic efficiency in creating public assets, public sector reform should be based on

decentralization. Its purpose is to reorganize the system of public finances towards a closer relation with the needs of the local and regional communities, and to build up the mechanisms of interaction between civil society, governments, rights, and public control over administrative activity.

In the case of post-socialist countries, public finance reforms are also associated with the modernization of the central government administration and efforts at public sector deregulation in terms of assets and services, not just those of a social nature, whose production in the socialist centrally planned economy was not commercialized, but also significant transfers from the central budget as the cause of economy inefficiency. This challenge could have been met through commercialization and privatization, the deregulation of commodity markets, labor markets, services, foreign trade, and financial markets, and de-monopolization. As to public finances, the commercialization and gradual process of a dramatic reduction in subsidies to inefficient non-privatized enterprises will play a key role[12].

In Poland, the real transformation of the state's status from an owner to a shareholder of enterprise was enforced based on the Act on Financial Economy Within State-owned Companies from January 31, 1989. As a result of these changes, companies were required to pay a dividend. It amounted to 44% of PPE value, which was treated as the statutory fund, and after its renovation under the Balcerowicz model this figure was cut to 33%. As a result of these efforts after the «Balcerowicz Program» this figure fell to 5.4% in 1991 from 6.6% in 1990.

The Law on income tax for legal entities, introduced on January 31, 1989, unified the basic tax rates for all economic agents irrespective of their form. At the same time, they eased the fiscal burden on profits from 65% to 40%.

Formally, the government's responsibility for forming the structure of production and its financial guarantee was abolished only after the abrogation of the economic planning law by the Sejm in September 1990. The elimination in 1989—1991 of the so-called intermediary structures of economy that grouped companies operating in energy, coal, transport industries, and 20 earmarked funds was of significant importance. The scale of deregulation connected with reducing subsidies to enterprises is shown by the fact that in 1989 they represented 28.5% of total central government expenditures, compared with just 17% in 1990.

[12] Other previously mentioned deregulation initiatives related to production of non-state assets, require no comments here, as they are discussed in other paragraphs of section 2, this book.

The decentralization of the public sector is closely related to the reactivation of local self-administration in 1990. Three stages in its implementation can be highlighted, namely:

1. The reform of 1990—1998, which can be referred to as the stage of «trial and error» of municipal self-administration.

2. The implementation of a three-tiered administrative division launched on January 1, 1999.

3. Attempts to reform the state's administrative center and achieve harmonization with the self-administration criteria set by the European Charter of Local Self-Government.

The legal boundaries of decentralization and its evolutionary tendencies were defined by amendments to the Constitution from December 29, 1989, the Local Self-Administration Law from March 1989, and the Constitution of Poland, as well as the European Charter of Local Self-Government ratified in 1993 (Law on municipal proceeds and guidelines…; Law on municipal financing).

The accelerated implementation, connected with the municipal self-administration elections[13], was aimed at implementing a systematic basis for support to the state and decentralization, and via them a subjectification of the local community and an increase in the potential for the efficient administration of state-owned property. Unfortunately, no financial foundation for municipal autonomy was created. At the same time, municipalities' income structure experienced a decline in internal revenues from 47.3% in 1992 to 33.5% in 1998[14], which included part of the inflows from personal income taxes (15—17%) and corporate income taxes (5%), proceeds from real property taxes (32—35% of its own income), agricultural tax, and transport resources.

In terms of the significant increase in orders from the areas of education and training, and the limited impact of the municipality's relevant taxes, they were doomed to a growing dependency on external support in the form of general subsidies (13.5% in 1991 and 25.4% in 1998), targeted on demand subsidies, additional internal financing, and a compensation of losses caused by municipal privileges on agricultural and forestry taxes (18.8% in 1992 and 21.6% in 1995).

Insufficient financing of orders by the state and voluntarily assumed obligations brought about a weakening of the municipalities' financial

[13] The self-governing system in Poland was liquidated by the communist government in 1959 in order to make local authorities an instrument of political power and administration of the supreme level.

[14] All figures concerning gminas (municipalities) are from the *Statistical Yearbooks GUS* 1991 …., 1998.

stability[15]. At the same time, problems related to the debts of the territorial self-administration units began to emerge.

January 1999 marked the start of the next stage of self-administration reform, called administrative reform. It dealt with reforming education, health care, and pension benefits. The three interrelated and significant reforms were aimed at:

1) Regulating the state's competencies resulting from the adoption of decentralization decisions of fixed norms that make a self-administration's proceeds the basis of its budget rather than targeted subsidies;

2) Establishing institutions of civil society according to the 1997 Constitution through the democratic identification of district and voivodship (province) political elites as a result of general elections.

Regulation of the state's responsibilities was related to the separation of the district level and the introduction of new financing principles. The reorganization of the state center, as well as the adaptation of ministries and central institutions to a time when operations on the territory would not be carried out through special administrations, was postponed. Unfortunately, the freezing of market conditions led to a deterioration of municipalities' financial situations. As a result, investment indicators changed dramatically. The new law on proceeds for territorial self-administration units passed in 2003 was to have renewed investment into municipalities.

The regulation of the state's responsibilities was as follows:

1) Limiting the central administration's functions, primarily in terms of managing changes and setting national standards in the area of public services;

2) Providing self-administration bodies for regional administration and the implementation of a regional development strategy with the authority to carry out certain public services (higher education, specialized health care institutions), supervise legal compliance, and ensure security and public order;

3) Requiring district and municipal self-administration bodies to provide general public services at the local level, as well as assigning them tasks to be performed for its citizens.

Thus, the reformed distribution of the state's responsibilities strengthened the autonomy of the self-governing units, not by changing the system, but by specifying the mechanisms of its functioning by

[15] The gminas' (municipalities') share of national taxes was constant: 5% corporate income tax, 15-17% personal income tax. The shares of local taxes in their own proceeds were also constant: 32-35% real property tax, 10% financial charges, 3% motor tax (substituted in 1995 by a motor fuel excise tax), and agricultural tax.

eliminating legal loopholes, and confusion and inconsistency between laws. It opened the way to profound changes in the management of various public sectors of the economy. Administration was forced out through a strategic development, and bargaining for the allocation of financial resources was replaced with actions for the efficient use of internal funds and legally standardized central budget subsidies. The decentralization allowed for the actual implementation of the subsidiarity principles, as a result of which municipalities invested just 20—30% of their budgets. The autonomy of local self-administration was granted judicial protection and constitutional support.

According to Article 2 of the Constitution of Poland from April 2, 1997, civil society is a necessary precondition for the efficient functioning of legitimate governments that implement the principles of social justice. A complete subordination of administration to the law must be the cornerstone for organizations and democratic state activity. That means that the state administration is to fulfill its tasks in a decentralized way and within its own responsibility through agents that are free from interference while performing their duties. The legality of activities carried out by bodies of public administration, voivodships (provinces), powiats (districts), and gminas (municipalities) is verified through the Supreme Administrative Court.

Nevertheless, the creation of a civil society after the more than 40-year experience of so-called democratic centralism by the communist state is an extremely difficult task. The elites of local self-administration, which were formed from local social organizations that had no organizational skills, were very poor representatives of the community's interests. Insufficient decentralized also helped little.

However, there is also a «blind spot» in reforming the public administration in Poland. It primarily has to do with reforms of the state administration center initiated by new governments starting from 1991 more for propaganda purposes rather than to solve existing problems.

Taking into account the unstable political situation and lack of civil society, the central state administration was not interested in developing the basis of subsidiarity and in transferring responsibilities to institutions that were closer to the citizens. By 1996, the only significant initiative became the opening of the National School of Public Administration. Instead of reforming the administrative center, the central state administration is expanding rapidly, with the simultaneous regulation of responsibilities related to the second stage of self-administration reform. This caused an increase in the number of jobs in the central state administration. The scale is seen in the following statistics of the average number of personnel in the central state administration (Kieżun, 2000):

1990 — 46,000; 1999—119,100; 1998—126,200 government officials. The share of staff in the central administration compared with self-administration also grew, from 0.89% in 1990 to 0.99% in 1998.

In the second stage of public finance reform, the only factors stimulating the central state administration were tasks related to the upcoming EU accession and the regular parliamentary elections. Unfortunately, EU expectations as to some elements of social security were not connected with market logic. The chances of agreeing central strategic coordination with market logic was not maintained at the appropriate level in-line with the principles of reforming education, health care, pension, and social systems, which are related to the effective EU legislation through social and economic unity.

Aside from its success, the decentralization of public finances still fails to meet certain important European standards:

1. Like before, the system of government purchases is overburdened with regulations.
2. Harmful provisions regarding spatial order exist.
3. Like before, a very tight and overly detailed set of rules exists that regulates the performance of certain tasks, especially those dealing with housing subsidies, household transfers, and financial aid to students, making it impossible to adapt performance methods to conditions and local needs.
4. A lack of clear criteria for the consideration of additional financing from structural funds and the EU Cohesion Fund.
5. The failure to introduce a single road management body on the territories of cities.
6. The criteria of the task adequacy to the allocated resources is not being met.
7. Failure to provide sufficient flexibility and variety in terms of sources of proceeds, primarily those incoming as a part of VAT.

The most complicated problems with deregulation in post-socialist economies are related to the need to adapt the mechanisms of distribution to the requirements of a market economy. The resolution of those problems requires an answer to the question about the harmonization of social justice institutions with the system of competition. Replacing the institutions tasked with balancing incomes and employment guarantees that were inherited following the collapse of the communist economy associated with the violation of acquired rights that are, in most cases, recommended by international conventions. Unfortunately, these conventions cannot accurately define how to implement these recommendations, which correspond to specific conditions of a given country. In the case of Poland, as in most other post-socialist countries,

the harmonization of justice and economic efficiency must take place at a low per capita GDP[16], when the deregulation of the social product, first and foremost education, health care, and social security, might imply limiting access to investment into human capital and violating the principles of equal opportunities for the majority of society. From this viewpoint, the reproduction of the social product must be based on the harmonization of high economic efficiency through the system of competition and market rules with fair social inequalities.

Unfortunately, deregulation in Poland began at a time when awareness about challenges to a knowledge-based economy and global capitalism was very insignificant. Instead, two opposing concepts of deregulation clashed, which tended towards too liberal a system and a solitary state, and even were inclined to leave the majority of inefficient regulations of the paternalistic budget and state, fully responsible for the security of a social unit. The declarations regarding the establishment of a social market economy and seeking membership in the EU led to the exploitation in the delayed in this area deregulation actions of patterns being mandatory, first and foremost, for the EU countries.

The most difficult problem to resolve appeared to be the deregulation of education, health care, and social security. Economic theory does not provide an unambiguous answer about the role of the state in these areas, although it has now become possible to fairly clearly understand the errors in administering the state and reasons for market inefficiency (Stiglitz, 2004). In terms of specific problems of the real national economy and paradoxes of the development of human and social capital in post-socialist economies, it was not possible to accurately predict whether the asset deregulation patterns in highly developed countries would bring the expected economic and social results in an economy undergoing transformation. Here we refer to an economy being affected by turbulent changes in the transformational process. The dilemmas of deregulating sectors related to social security and social product reproduction are also related to the fact that countries with similar mechanisms of deregulation in those sectors have seen different results. As to the previously mentioned problems, political and expert circles held the belief that the socialist system only needed some improvement and modernization, but not liquidation or excessive limitation (Golinowska, 2000: 232). That actually implied accepting a competitive system while rejecting the market principles of distribution. This approach required not only deregulation, but also rapid changes to the regulatory mechanisms

[16] Statistics of GUS and OECD indicate that in 1990, the GDP per capita in PPP amounted to USD 4,466, in Poland, USD 15,991 — in Germany, USD 11,797 — in Spain, and to USD 9,187 — in Greece — the poorest EEC Member state .

and the establishment of a network of new institutions that would harmonize economic efficiency with the concept of social justice inherited from the paternalistic authoritarian state, which favored equality over economically justified inequalities.

In the early period of transformation, the dominant opinion was that reform in the educational sphere could wait, because the problems of education had been appropriately resolved under socialism. Unfortunately, the reality was different. The inherited system of regulating education did not meet the efficiency criteria, besides, there was no justice and equal opportunities except for formal regulations that were supposed to ensure this equality. Education was aimed at highly specialized, overly ideological knowledge; it discouraged independent thinking and the reflexive modernization of social capital that focuses on innovative positions. Its product, human capital, could not serve business and contribute to improvements in economic efficiency.

In late 1999, a reform of the school system was initiated based on the decentralization of educational administration. The reform introduced changes into state financing of education, established new types of schools and their organization, and set new principles for teacher employment and remuneration. Local self-administration was tasked with maintaining and setting up educational institutions (municipalities — state pre-schools, elementary schools, and gymnasiums; districts — elementary schools, special high schools, senior high schools, youth education centers; provinces –schools and educational and study centers of regional importance).

A teacher's card was introduced into the educational system (Dz. B. dated 2006, no. 97, para 674), regulating a teacher's promotion (after one year's work from trainee to contracted teacher based on an exam; after another three years — full teacher based on exam results and certification).

The main achievements of the educational reform were as follows: expanding secondary and higher education, increasing educational aspirations in society, a considerable improvement in village school infrastructure.

In 2007, new educational initiatives emerged aimed at rebuilding social capital. Centers for educational support for students with schooling problems were launched. In the near future, a policy of «zero tolerance for violence in school» will come into effect. Educational programs for the needs of the establishment of social society and the reinforcement of practically tested ethical values that contribute to the strengthening of personal dignity are also being established.

The transition to the market economy, started in 1989, as well as the process of democratization, created a good climate for the implementation

of civil initiatives in the area of higher education. In 1990, high schools introduced independent governance, although their subsidies decreased considerably as a result of the transformation-related crisis. They also lost the option of obtaining support from production. As a result, by 1998 real subsidies shrank more than three-fold for full-time students and four-fold if taking part-time education into consideration.

This problem was partially resolved through the commercialization of part-time education and the rapid development of private higher educational establishments: in 1998 about 80% of students paid for their education (Kołodziejczyk, 1998). Limited financing decreased interest in teaching as a profession, where low salaries forced individuals to work part-time, often outside of the academic environment. Those factors negatively affected the quality of the educational process, research efforts, and promotion in academic careers. Only the clearly lower quality of rapidly growing human capital resources led the government to launch a reform of the school and higher educational institution systems (1998).

In the context of a deregulation of economic activity, there was also an attempt to reform health care, where access to services was limited. At present, reforms to the pension system appear to be successful in terms of cutting unjustified budget expenditures, however, the real effects from this reform can only be assessed reliably once its beneficiaries reap its benefits.

2.3. De-monopolization of the economy

2.3.1. Characteristics of the monopoly in a non-market economy

The creation of a legal framework and the practical implementation of a policy governing competition were some of the main elements of the transformation of a centrally planned economy to a market economy. The task was given to a state without experience in market conditions and in the activity of economic players. The de-monopolization process was complicated by a country's lack of own experience and theories that would describe the patterns of a transition from a non-private centrally planned economy to an economy dominated by private ownership and the market allocation of resources. At the same time, examples of legislation and experiences in developed capitalist countries were not able to address the problems that emerged from the specifics of a state monopoly. For that reason, during the transition to a market economy anti-monopoly legislation could not be identical to similar legislation in developed

market economies. The legislation also could not perform identical functions in terms of non-state monopolies created in the course of successful privatizations and in the constantly emerging monopolistic structures in the non-private sector.

In Poland in 1989 small enterprises with less than 200 employees accounted for about 6% of the country's employees compared with 30-40% in EEC countries. In 28 branches of industry in Poland, 1-3 companies produced 64-100% of products in which they specialized. In contrast, in EEC countries, the 100 largest companies in 1986 produced only 29.5% of GDP (GUS, 1990, page 15).

The start of the transition to the market was coupled with the adoption of the thinking and behavioral patterns typical for a state monopoly that existed until private ownership became dominant in the economy. In Poland, however, it was not as comprehensive as in other socialist countries, where no previous reforms were conducted to replace the forced distribution system of planning and the decentralized planning administration, which was based on gaining a part of financial resources. Nevertheless, the economic and social consequences of the state monopoly, irrespective of the method used for the planned distribution of tasks, remained the same. In terms of the weak perception of the social effects of this type of monopolization and the general resistance during its elimination, it is worth noting a few things about the sources, implications, and specifics of monopolization inherited from socialism.

State monopolies were neither seeking to reach the Cournot point nor any other point of equilibrium from traditional neoclassical market theories. Depending on the type of state administration, non-private monopolies sought to expand scales of production that were not limited by economic quotas within the same enterprise trying to secure material or financial resources from government institutions. The expansion was aimed at strengthening influence over managerial decisions, maintaining calm in the workforce, improving employment prospects, and securing the average wage.

In the case of a monopoly based on state ownership, additional transaction costs emerge against the increasing scale of production and the development of hierarchical structures (costs for obtaining and processing information to improve the performance of centrally planned tasks, as well as the transmission, monitoring, and adjustment of these tasks). These additional transaction costs increase the time needed to make a decision and serve to bureaucratize the decision-making process. In reality, monopolization within the bounds of private property also leads to the development of hierarchical relations, but it is limited by

economic estimates of costs and profits, the development of vertical relations based on a clear hierarchy compared with the alternative of cooperation within market transactions (horizontal relations). The problem is that these additional transaction costs in a state monopoly are only distributed among the citizens. In practice, it significantly affects pragmatism in the decision-making process and thoroughness in estimating these costs. At the same time, when obtaining alternative benefits, the size of the company becomes especially important. This is because the management's prestige grows alongside the company, and with it grows the possibility for the emergence of easier and more profitable tasks, as well the possibility to obtain better working conditions and wages, and acceptance by the workforce.

The above-described depreciation of economic estimates by a state monopoly tends to lead to excessive government regulation. This happens because the regulatory processes fall into the sphere of public officials, the same officials that are the beneficiaries of the profits. From this perspective, despite the obvious shortcomings of systems managed by the state, the transition to a market and the process of de-monopolization may be blocked by the state bureaucracy. In parallel, attempts to introduce new economic agents to the market can also be blocked through lobbying by existing monopolies, especially foreign ones, since it is relatively easy to manipulate irrationally patriotic positions.

Overly bureaucratic state institutions and mid-level administrative officials show no interest in reducing transaction costs as a result of eliminating a monopoly because that would lead to questions regarding the need for their existence. In this regard, microeconomic efficiency criteria cannot have any material significance in their regulatory activities and cannot be taken seriously in view of consumers' interests. The presence of state-run monopolistic producers is seen in product quality, hidden price increases, under-the-counter sales, and a deteriorating culture of customer service.

Excessive state regulation becomes stronger and even develops with the goal of eliminating the problems that are the product of hierarchical relations within state ownership. These additional regulations are actually intended to eliminate the various negative effects of a monopoly based on state ownership, but they cannot be efficient since they are the cause of growth in transaction costs.

The aforementioned problems of state economic intervention are discussed widely in various economic theories in the context of so-called «government failures», especially in neo-institutionalism (Williamson, 1985). However, no clear position has yet been found on efficient ways to strengthen competition and enact anti-monopoly policy by the state.

2.3.2. Discrepancies in de-monopolization initiatives

In discussing the necessity of state intervention in the struggle against monopolies in a market economy, we make a distinction between two opposing theoretical trends: institutional and evolutionary.

The institutional theory suggests that growing competition will inevitably lead to its degeneration. The origination of economic authority and the subsequent disproportion of economic power is the cause and manifestation of this degeneration. According to this theory, the concentration can be determined neither by the market itself nor through the direct intervention of efficiency criteria. It is necessary for political decisions to set the allowable level of concentration, i.e. the proportions of market and bureaucratic coordination. If competition disappears, market participants will need to constantly adjust economic efforts. This means that market mechanisms require institutional boundaries that will offer the opportunity to act competitively. The focus will be on preserving individual freedom of action as a precondition of efficiency, i.e. market-oriented individual preferences.

The market and enterprise are two equal mechanisms of control. That said, competition is the product of horizontal demand and supply relations, i.e. voluntary transactions to preserve the freedom of entering the market. However, internal decisions within an enterprise are primarily of a hierarchical nature (moving vertically). Business growth requires that certain decisions be given over to the bureaucratic domain. This may imply the departure of these decisions from market coordination. Therefore, growth in the scale of a company, i.e. the concentration of production, leads to a decreasing role for the market.

For proponents of evolution theories, economic authority is irrelevant in resolving market imperfections because the appearance of disproportional authority is a feature of the market (economic authority here is understood as the market mode of operation). Competitive processes take place according to the principle of authority creation and erosion, which means that this kind of dominance cannot last for a significant amount of time. Institutional conditions for competition include the voluntariness of transaction and freedom of market entry. These legal conditions create the preconditions for a large number of voluntary exchange participants, and therefore the guarantor of the freedom of market entry will be the liberalism of ownership rights over production resources.

If the previously mentioned conditions of competition are met, individual market participants' motives are focused on profits. That occurs because only producers that maximize profits or at least those that strive for satisfactory revenues will be able to survive.

In the evolutionary approach, free market access is the decisive factor for competitive business. The problem of restraining competition is then reduced to the question of barriers impeding market entry. However, competitive restraints may also be caused by external factors, the main source of which is state intervention that creates or maintains a monopoly.

In the evolutionary interpretation, threats to efficiency and freedom from the internal degradation of market mechanisms are entirely impossible. In reality, monopolistic positions can emerge in the short-term. Nevertheless, the previously mentioned theories prove that they do not restrain competition and efficiency.

Numerous examples of the modern market economy demonstrate that even when there are no alternative sources of supply, a supplier's profit maximization strategy can be based the standard monopolistic practice of limiting supply and raising prices. Nonetheless, factors can exist that eliminate these practices, namely: competition arising from existing sub-institutional interests, large suppliers' self-sufficient possibilities, competition from foreign producers, and profits from growing scales of production that become possible due to stronger demand because of low prices.

It should also be stressed that non-market methods of price regulation, even in sectors not governed by a natural monopoly, do not ensure the lowest prices in the long-term. State control over prices or their administration does not contribute to a decrease in costs and an increase in production, and leads to a decline in purchasing power, primarily of final consumers. When taking into consideration the objective difficulties with reducing nominal wages, it should be expected that once again the adaptation process will occur under the influence of growing prices, although it could be prolonged in time.

The introduction of political control over prices and revenues (nationalization, administrative control methods) instead of economic regulation in areas where competition cannot exist does not eliminate the need to answer the following question: is the state capable of managing public interests and microeconomic efficiency? The numerous weaknesses typical of the public decision-making process require restricted administrative regulation in the cases of monopolistic practices where the price elasticity of demand is extremely low.

When freedom of market entry and exit exist, the tendency to create boundaries in order to concentrate production in one or several groups of companies in accordance with the rules of the optimal distribution of resources becomes very probable, since it is a threat to on-going competition. Exclusivity in production and distribution is not crucial for all potential competitors. In light of this tendency, the assertion by M. Friedman that factors which are crucial for monopolization cannot be

treated as lasting if some new form of regulation or state monopoly does not emerge seems appropriate. The economist resolves the dilemma of choice between the private, public, or the public-private monopoly and the regulated institution that stands for public interests in favor of the former.

However, when free access to the factors of production exists and the price of the monopolistic agreement is high enough, a more beneficial decision would be to introduce a tender or auction competition (an institution of open bidding for the right to produce goods and services based on exceptional rights). Exceptional rights would be granted to the bidder offering the best prices and standards for the buyers. In view of that, the assertions about a decline in innovation due to monopolization seem unsubstantiated; modern practice refutes it. The creation of innovative products is an important condition in order to succeed in entering new markets occupied by other companies. However, it brings the threat of losing the market due to changes in technology. Its minimization requires more intensive innovative activities, while neglecting it would be much riskier taking into account the fact that the ability to maintain the advantage of exclusivity in innovations will decrease as a market becomes more monopolized. Finally, one should consider the fact that an active pro-innovation stance allows for future market expansion due to the ability to cut prices and thus widen the circle of buyers.

An increase in the concentration of production should also be seen as a change in the form of the competitive mechanism's functioning rather than its decline. That is supported by the fact that monopolistic super-profits perform similar functions in terms of the area and efficiency of activities, while new signals are seen as a threat of being forcing out of the market. It should also be taken into consideration that depriving an enterprise of the ability to make monopolistic profits can destroy related pro-efficiency motivation, and it becomes especially important in market conditions to open up to foreign competition.

The above arguments in terms of underestimating the importance of economic authority for the formation of self-sufficient markets suggest that steps towards de-monopolization should be taken in moderation.

2.3.3. The process of de-monopolization in Poland

Poland's first, somewhat comprehensive anti-monopoly regulation was introduced in accordance with legislation from December 28, 1987 on the elimination of monopolistic practices in the economy (Dz. B. no. 3, provision 18 with subsequent amendments). This law contained no classic

definition of anti-competitive practices banning monopolistic agreement and abuse of dominant positions. The law only outlined:

— Fines payable to the Market Development and De-monopolization Fund;

— Actions according to official rules or at the suggestion of the relevant local voivodship councils and economic agents whose interests were or could be violated by monopolistic practices;

— The enforcement of the administrative investigation code and procedures for bringing suits to the Supreme Administrative Court.

In practice this law proved ineffective, therefore in February 1990 the Sejm passed a new law on counteracting monopolistic practices (Dz. B. no. 14, provision 88). This new law was amended with new cooperative legislation and a law on changes in the organization of cooperatives' activities, approved in January 1990. These legal acts were subsequently improved many times.

Based on these regulations, the Central Anti-Monopoly Office reporting to the Council of Ministers defined anti-monopoly policy. The new policy was aimed at protecting free competition and the public interests of the competitor and the consumer. This goal can be implemented through the support of competition, the elimination of administrative monopolies (divided into large state-owned and cooperative enterprises that dominated on the market for a long time), and the prevention or elimination of monopolistic conduct by economic agents. The law targeted only economic agents. At the same time, it provided for no sanctions against public authorities (central and local) if they interfere in the development of competition. As the only law mandatory among all post-socialist countries, it nevertheless dealt with agreements reached by employees and trade unions with employers regarding the protection of employee rights. This law also contained no provisions concerning invention, i.e. the title to exclusive rights to trademarks, patented designs, and copyright regulation. It did not define unfair competition and did not allow for counter-mechanisms. Until late 1993 these issues were regulated by a law dating back to 1926.

The use of monopolistic practices was subject to fines of up to 15% of an entity's revenue in the previous fiscal year. In addition, the threshold for a market share not subject to anti-monopoly control was raised from 30% to 40%. Blame during the investigation into a case of unavoidable monopolistic practice was shifted onto the accused entity. Control over the legality of decisions made by the Anti-Monopoly Office was handed over to the courts.

According to the Anti-Monopoly Office, 87 large companies had to be broken up in 1988. However, by mid-1990 that number was down to only 34.

The office actively liquidated middlemen, which, among others, included local meat and sugar companies, central and local cooperative branches, the Coal Union, and the Energy and Brown Coal Association. The construction and transport industries were also de-monopolized. Overall in 1989-1990, the division of 290 entities resulted in the appearance of 996 new companies. However, some of these de-monopolization initiatives were not carefully thought through — they were accompanied by negative economic side-effects, including difficulties in fighting unfair competition on the part of foreign companies and distributors.

With the planned de-monopolization initiatives bringing negative side-effects, the pace of efforts slowed in 1991. The announced de-monopolization of agriculture was not carried out, and monopolies continued to exist in durable consumer goods industries and the banking sector.

In 1990, the Anti-Monopoly Office considered nearly 200 cases concerning the use of monopolistic practices. Of 261 rulings dealing with the establishment, merger, and restructuring of enterprises, in 60 cases the regulator prohibited the use of unlawful practices. The Anti-Monopoly Office banned the establishment of 15 new companies, but three of the rulings were overturned by the Anti-Monopoly Court.

In 1991, the Anti-Monopoly Office initiated 83 investigations of banned monopolistic practices. Dominant among them were onerous contractual terms, but guilt was only proven in 20 of the cases. Seventeen accused companies filed suits with the Anti-Monopoly Court. Out of 13 claims examined eight were stayed, one suit saw a change in part of the verdict, and four rulings were canceled. By the end of 1993, 100 rulings banning the use of monopolistic practices were issued.

In the same period, in the framework of the general privatization of 100 enterprises out of 400 initially listed, the Anti-Monopoly Office banned the commercialization of the energy sector and the transformation of the state treasury into individual entities. Overall, about 2,000 decisions were made regarding ownership and organizational transformations. Most frequently, the Anti-Monopoly Office was called upon to interfere in cases of onerous contractual terms. Cases of that nature primarily took place in the telecommunications, energy, and gas industries.

During these years, the Anti-Monopoly Office faced difficulties in their struggle with price cartels, although individual cases were also seen in the meat and sugar industries. Since the regulator lacked authority, their investigations often ended in very mild sanctions. The changes in the customs regime from August 1991 also did little to help the de-monopolization of the Polish economy. These changes restrained competition on the part of import and led to lobbying by various interest

groups. In these circumstances, the search for efficient compromises between the interests of domestic producers, consumers, and the tasks set by the economic restructuring was significantly complicated.

The inadequacy of anti-monopoly legislation concerning the conditions of the operation of enterprises in Poland forced the Anti-Monopoly Office to develop a bill on fighting unfair competition, which came into force in November 1993. This law is still in effect and deals primarily with civil law. It defines unfair competition (e.g., defamation of other manufacturers, imitation of brands, alteration of commercial data, and unfair advertising).

Given the huge scale of the de-monopolization of the state-owned economy, the constituent bodies of state-owned enterprises and many agencies (such as the Finance Ministry, the NBP, the Ministry for Labor and Social Policy) were tasked with implementing the competition development program designed by the Anti-Monopoly Office. The governmental program on the development of competition for 1990-1994 was focused on actions that contributed to:

— Pro-competitive changes in the functioning of the economy;

— The liberalization of production and services;

— Counteracting the use of monopolistic and dominant market positions.

The pro-competitive changes were implemented through support to the development of small business, the launch of a system of loan guarantees for new entrepreneurs, de-monopolization and privatization in technical and utilities-related infrastructure, and the creation of conditions for competitive import using exchange rate and tariff policies.

The actions aimed at liberalizing goods and services markets were dependent on control by the Anti-Monopoly Office of mergers, restructurings, and the establishment of new companies, mostly as it pertained to the de-monopolization of farming, the production and distribution of raw materials and semi-finished goods, as well as the establishment by the relevant agencies of new financial and insurance institutions. These initiatives were aimed at preventing the re-emerging of middlemen and making impossible the appearance of new monopolies. To this end, the Anti-Monopoly Office gained the right to voice its opinion on privatization initiatives, supervise the establishment of companies with the participation of foreign capital, and ban the establishment of new enterprises if they had the potential to become a threat to free competition. At the same time, companies were obliged to inform the Anti-Monopoly Office about plans to establish a new entity in the event that its participation on the market was expected to be significant or if it would be able to take a dominant market position.

In order to counteract the use of monopolistic and dominant positions on the market, a register of economic agents that hold monopolistic positions is updated regularly and their actions on the market are monitored. The Anti-Monopoly Office was also required to identify industries deemed to be natural monopolies and cooperate with the relevant governmental institutions in de-monopolizing and privatizing the monopolies.

To increase the efficiency of the de-monopolization initiatives, a new anti-monopoly law expanded the list of banned practices. They included limited market access agreements, collusion, monetary and personal connections, a general ban on price agreements, a ban on the abuse of dominant positions in setting and increasing prices, setting onerous contractual obligations, deliberately creating a deficit, etc. In monopolized market segments, announcing plans to raise prices became mandatory. This rule governed over 100 dominant economic players.

The Anti-Monopoly Office gained the right to ban certain harmful practices and impose fines in especially dangerous cases. Fines could also be imposed on entities and managing individuals for not complying with recommendations made by the anti-monopoly regulator. The body's decisions are binding, although they may be challenged in the Anti-Monopoly Court.

Far-reaching changes were also introduced through the amendment to the law on fighting monopolistic practices from May 19, 1995 (Dz. B. no. 41, provision 208). This amendment started the process of gradually expanding the responsibilities of the Anti-Monopoly Office, which in August 1996 was renamed to the Competition and Consumer Protection Office (CCPO). Its chair was given authorities far beyond protecting the market against anti-competitive activities and protecting consumers' rights; the office's autonomy was increased and the legal grounds established allowing self-governing bodies to elect consumers' rights advocates, as well as to ensure the consultancy and legal information in the protection of consumers' rights. Consumers' rights advocates also have the right to initiate anti-monopoly investigations. The CCPO chair was also entrusted to oversee social assistance programs.

The amendment of anti-monopoly legislation and legislation on competition and consumer protection, as well as the granting of independence to the chair of the CCPO, was based on the Competition and Consumer Protection Law from December 15, 2000 (Dz. B. no. 60, provision 704 with subsequent amendments). The chair of the CCPO is elected for five-year terms through a competition held according to a special procedure set by the chair of the Council of Ministers among individuals with higher education in law or management, known for their

theoretical knowledge and practical experience in the areas of market economics, competition, and consumer protection. The aim of subsequent innovations was to finally align the terminology in the sphere of legal regulation of admissible de-monopolization, pro-competitive initiatives, consumer protection, etc., with legislated EU standards, and to coordinate the jurisdictions of the chairs of the CCPO and the European Commission.

Poland's accession to the EU requires it to assume the community's obligations for the anti-monopoly authorities, that is, the possibility for the CCPO to use both primary and derivative legislation of the community. It is also said that the CCPO chair loses its authorities related to control when the transaction occurs at the level of the European Union (the transaction participants having exceeded the turnover threshold of EUR 5 billion). The role of the CCPO chair in supervising social assistance from the European Commission was also limited.

The European Commission can also lift bans on some clauses restraining competition, but businessmen independently and under their own responsibility determine if their activities breach the community's anti-monopoly rules.

The European Union systematically adapts its competition policy to changing internal conditions while striving to make the multilateral guidelines mandatory, for which the most relevant international organization would be the World Trade Organization. Today, the de-monopolization should serve, primarily, to protect competition, and promote economic efficiency, consumer welfare, and the competitiveness of the European economy. This means that the challenges of globalization should be viewed in connection with the EU's strategic objectives, which are associated with the establishment of a monolithic market community that ensures the free circulation of goods, services, capital, and labor, taking into account the specifics of local markets, as specified in the Lisbon Strategy. Institutional support for the de-monopolization in Poland from the perspective of these objectives has been very high, greatly exceeding the standards of many «old» member states.

2.3.4. Conclusions

Poland's successes in de-monopolizing its economy can be associated with the following actions brought about by the economic transformation:

— Establishing modern anti-monopoly legislation that meets the standards of the most developed countries;

— Resolving the problem of currency convertibility;

— The commercialization and rapid privatization of state-owned enterprises;

— The noticeable reduction in public subsidies to state-owned enterprises from 16% of GDP in 1998 to 0.4% in 2005;

— Deregulating foreign trade, which allowed for a sharp increase in the share of goods imported for final consumption (from 3% in 1989 to 10% in 2002) and an incremental increase in the imports-to-domestic-consumption demand ratio (from 13% in 1989 to 30% in 2002).

However, the practice does not always keep pace with the opportunities created by legislative regulation. This primarily has to do with the protection of the rights of consumers, employees, and the staff of the so-called political entrepreneurship, whose privileged positions are often attained through non-transparent contacts with public authorities (Raczyński, 2003). Anti-monopoly policy, which targets not only direct monopolists but also subordinated institutions and state functionaries, was introduced with great difficulty. This means that institutional barriers that protect the monopoly of political entrepreneurship are universal. They are connected, first and foremost, with the actions, ways of thinking, and shared interests inherited from the state monopoly. Inherited informal institutions are also based on the justice and health care systems, as well as on the health care system's patients. From this perspective, the standards that were borrowed from anti-monopoly legislation and practice in the EU and leading developed nations, prove themselves only in typical monopolistic situations; despite making room for anti-monopoly practices, they often fail to tackle practical problems.

It should also be noted that another threat is emerging in today's over-globalized and information-saturated economy, a threat related to the emergence of new media-based monopolistic structures able to subdue not only the consumer, but also the political sphere in the interests of transnational corporations, and do it with unprecedented speed. The result would be significant amount of noise in information, the loss of clients, and the transformation of a democracy into a telecracy. The resulting problems should be transferred to the competence of anti-monopoly legislation.

2.4. Transformation of property relations

2.4.1. The basis for an acceleration of the privatization process

Following the introduction in Poland of economic and political patterns practiced in the USSR, the implementation of the provisions of the nationalization decree resulted in a lasting degradation of private ownership of the means of production in the late '40s. The adoption of

the constitution and other so-called norms of «social ownership of production means» imposed by the communists actually caused the disappearance of rights to the exclusive disposal of the property and the liquidity of this property by citizens as their rightful owners. Instead, the real administrator of the means of production became the state economic administration. However, since it was not the legal owner, it carried no material responsibility for decisions made. Therefore, in practice, the idea of «nobody's property» emerged, which, given the populace's widespread passivity, caused general wastefulness and eventually led to the responsibility for wrong decisions and their consequences being passed on to citizens.

Given the inefficient consequences of the system of indivisible and not freely transferable property rights, questions of finding an efficient system for transferring decision-making authority were brought up in Poland again after the outbreak of crisis in August 1980. After several years of debates, the ideas permeated into public opinion, and pointed out that the key to a successful transformation of an administrated economy into an efficient market-based economy lay in the change in the structure of ownership that would result in a significant increase in the share of private ownership. These ideas were based on the belief that private ownership guarantees development on a large-scale and the rational channeling of activities, initiatives, innovativeness, and creativity. The theoretical justification that did not contradict the theory's empirical evidence was provided by the school of thought of ownership rights.

According to this concept, private ownership is characterized by:

- The exclusivity of an individual's right to a certain resource;
- The voluntary transfer of those rights.

The constitutional conditions for the domination of private ownership will arise when the abovementioned principles form the substance of social relations and are protected by law. The exclusivity of ownership rights allows each authorized decision to be linked to a certain individual or individuals. The specific owners as the subjects of ownership will bear the economic responsibility for choosing alternatives in terms of the placement of resources and the distribution of revenues, or for refusing this choice. Owing to the exclusivity clause, private ownership efficiently associates decision-making risks with the owner. This exclusivity tends to make individuals act rationally with a given resource. In this case, microeconomic rationality manifests itself in the highest degree in the decision-making process. The owner is subsequently maximally interested in limiting the possibility of profits being transferred to another individual or of profits being obtained as a result of the resource being used by another individual.

Free market entry is the second necessary condition for the predominance of microeconomic efficiency. Maintaining the principle of free market entry requires the voluntary transferability of ownership rights, i.e. the unlimited possibility to transfer these rights to other individuals. If economic efficiency dominates, the creation of new economic agents will take place independent of political decisions. It should instead be the product of independent decisions. The only restraints here become the available financial resources and an individual's inclinations to use market opportunities. If those conditions are met, the re-production of ownership rights should be of an economic nature, i.e. based on economic calculations.

In practice, economic rationality also requires a competitive environment. The liberalism of ownership rights, whose source is the principle of free market entry, guaranteed by law, is sometimes seen as insufficient in terms of microeconomic efficiency. Monopolistic tendencies limit the freedom of entering the market and are constantly seen in practice. From the theoretic viewpoint, the benefits from the scales of production are the justification for these monopolistic tendencies.

The theory of ownership rights takes into account the significance of monopolization in ensuring economic rationality. Alongside private ownership exists an objective limit for the development of hierarchal relations, i.e. the monopolization of production. Hierarchical relations, which are typical for relations inside an enterprise, should develop according to the logic of profit maximization, i.e. until hierarchal exchange costs are at the level of market exchange costs. Upon attaining this equilibrium, it should be expected that the owners of the means of production will be inclined to use market exchanges, since any further expansion of vertical relations would lead to losses.

It should be noted that the subordination of allocation decisions according to the notion of efficiency implies that the public expediency of these decisions can be realized only through market mechanisms, i.e. ex post, and not taking into account those needs whose satisfaction cannot generate sufficient profits for the owners of the capital. From this perspective, the limited and partial public expediency of allocation decisions should be adjusted through intervention initiatives by the state. There are also negative external effects, i.e. undesired consequences for third parties who hold exclusivity and voluntary property transfer rights; they sometimes require procedures that restrict these persons' rights.

The intervention of centers of political authority carried out to eliminate the previously mentioned weaknesses in allocation processes and private ownership should be limited. The lack of internal constraints for economic interventionism by the state would disrupt market coordinating processes

given the prevalence of political interests over the economic criteria of choice. The required conditions for economically justified boundaries for state interventionism are the interests of private owners of production means, legal regulations that establish the positional prevalence of the state in respect of economic agents, and the democratic political system. Subject to the prevalence of a constitution and laws protecting an individual's rights of property, and the disposal and transfer of these rights to production resources, a privatization can set a manager's motivation apart from the game of political interests and political instability,.

The decentralization of allocation decisions, which took place in Poland as a result of the reforms of the '70s and '80s, without any transfer of ownership rights, actually brought with it a far-sighted limitation of the state's influence on real processes, but did not entail the subjectivization of ownership. At the same time, property not belonging to anyone remains controversial due to the exclusivity of the rights to it and the voluntariness of their transfer; it belongs to nobody and provides no microeconomic efficiency.

The subjectivization of property can also be accompanied by a change of employees at some enterprises due to the development of the joint-stock form of ownership and the employees' participation in a company's results and the decision-making process.

Privatization is also a prerequisite in avoiding the narrow horizon phenomenon in decision-making by economic agents (the so-called managers' term horizon). Private ownership removes time limitations in the area of property rights since it links decision-making powers over a property item to the specific person rather than to social roles. From this perspective, the capitalization of the expected effects of innovation (positive and negative) with the current market value becomes possible and expedient. Under conditions of privatization, economic organizations' inability to react to changes in areas of technology, internal demand, and global trade opportunities disappears (this inability exists in a centrally planned economy).

The efficient course of restructuring processes also depends on privatization. The freedom of market entry and the voluntary transfer of ownership rights allow local mechanisms for the circulation of economic surpluses to be transferred from their place of origination to where they would be used most efficiently. Thus, competition and private ownership release the so-called processes of creative destruction, i.e. the bankruptcy of incapable companies and the absorption of their resources and revenues by the most efficient entities.

The freedom of capital circulation is a condition for the emergence of the capital market and the market of managerial talents. A manager

reporting to a private owner holding at least the controlling stake is forced to maximize profits, since any advancement on the managerial market will depend on the size of dividends (company profits).

Privatization allows companies to avoid soft budgetary and financial restrictions that were prevalent in the socialist economy. It is the only practically tested efficient instrument that frees government agencies from responsibility over companies' financial situations, which cannot be controlled in conditions of public ownership.

The previously mentioned arguments in favor of privatization prove that a market without private ownership cannot function accurately and cannot act as a complete market. Market efficiency requires efforts to be focused on speeding up the privatization process, while the progress of many transformational processes will depend on the speed of privatization. We have already mentioned that privatization stipulates progress in the area of wage liberalization. It can also help overcome a recession and strengthen macroeconomic stabilization by improving the efficient use of resources and stabilizing economic agents' financing.

There are also historical preconditions that can aid the acceleration of the privatization process. These preconditions are related to schemes of the passive and negative adaptations of economic agents, which were inherited from socialism. In practice, they show themselves in the tendency to avoid changes in strategy, price increases, and reducing output to stave off bankruptcy. Instead, a company's activities are focused on lobbying for protection against foreign competitors and finding ways to introduce the benefit rent. Since the source of the benefit rent is economic intervention by the state, it puts pressure on the state's active tax, monetary, industrial, agrarian, and commercial policies.

Inherited monopolistic structures in the economy favor this path of adaptive processes. From this perspective, the lack of rapid institutional changes will make it impossible to conduct any further progressive actions in the creation of efficient markets. A competitive environment for state-owned enterprises will only be possible once the subjective structure of the economy becomes dominant owing to the activities of private companies. Only then will the introduction of proactive and pro-efficiency strategies become probable.

2.4.2. Privatization and employee participation and self-governance

Privatization is usually associated with the loss by the stuff of its influence on management's business decisions. This generally accepted opinion is oversimplified. In practice, the degree of the socialization of the decision-making process in a company is determined by the method

of management and the goals of property use. The extent of a workforce's impact on business decisions and hence management's ability to satisfy the interests of the workers is the determinant of the subjectivization of the stuff.

As past experiences of companies established by the state based on no-private forms of ownership have shown, nationalization leads to the elimination of many complications arising from ownership rights. Irrespective of the form of ownership, it eliminates the right to succession, market turnover with the means of production and profits, the right of refusal from use, and the avoidance of related losses.

Incomplete decision-making powers are also inherent in non-private forms of ownership; this reduces the managers' disposition to safeguard the owners' interests, which can negatively affect a company's microeconomic efficiency. On the other hand, incomplete property rights lead to the separation of these rights from the individual and the related functions of certain organizational units. In practice, this fact has far-reaching consequences for the area of the bureaucratization of management. State bureaucratic structures are not sufficiently motivated to maximize benefits for the collective. Their private interests require a maximization of the scale of actions. Subsequently their social prestige, power, and political influences will increase. This leads to an expansion of the bureaucracy, and a detachment from the goals and tasks entrusted to the bureaucracy. Hence, state-owned property becomes nobody's ownership, and the authorities in the areas of production and income distribution become dependent on the decentralized decision-making process established by the state.

Private ownership does not exclude the participation of workers in management. At the same time, the authorities' scope for direct control should be smaller than in the case of self-governing property. However, in the joint-stock form of ownership that dominates in modern capitalism, the interests of owners (shareholders) can be ensured efficiency only by once again returning the property rights that were taken away by the previous nationalization to an individual. The managers of a joint-stock company must be diligent in providing shareholders with sufficient dividends, because they can easily dispose of shares that offer no dividends. A general shareholders' meeting can also dismiss inefficient managers. In the event new owners take over a company, managers should consider the risk of their dismissal, since the establishment of a market for managers brings with it competition. In practice, this competition restricts the inefficiency of the bureaucracy.

The belief for the need for privatization took definite shape in Poland in the second half of the '80s through debates about the implications of

various ownership decisions. Nevertheless, in preparing the governmental stabilization program and system transformation in September and October 1989, there was still no plan for enacting this process. The architects of system changes in Poland recognized the need for as rapid a privatization as possible. At the same time, they rejected any form of state-owned property distribution and proposed privatization. These convictions rested upon theory supported by practical examples, which specified that the private sector's dominance is a necessary condition for the strengthening of competition, for efficient market functioning, for microeconomic efficiency, and for the ability to adapt to global market requirements.

Privatization in post-socialist countries is an exceptional process. The process is based in laying the groundwork for a state in which the private sector would be dominant. The huge scale of the initiatives related to the creation of the establishment of the private sector requires new areas of activity. Sticking by the example of developed capitalist countries in the '80s would stretch the process for decades. For that reason, a new concept of privatization by proposing (promoting) private entrepreneurship, de-nationalization, re-privatization, and the privatization of management appeared.

However, discrepancies emerged as to the idea of an accelerated privatization process. Opponents argued that privatization, like any other economic initiative, should be based on an estimate of costs and public benefits; it is needed only inasmuch as it brings efficiency. Efficiency is also a function of the pattern of changes in the economic agents' operating environment and the specifics of these conditions at a given time and place. Since the populace's ability to adapt deteriorates with the increasing rate of changes in the operating environment, the privatization process cannot be accelerated through government decisions. It was also stressed that the specifics of institutional, socio-political, and psychosocial conditions in Poland, alongside economic lag, technological gaps, a general lack of capital, and the huge scale of the privatization initiatives, would not contribute to the efficient use of proven examples of privatization.

2.4.3. De-nationalization

Regarding the previously mentioned objective constrains in the sphere of private entrepreneurship, there emerges the need for de-nationalization, i.e. privatization of the public sector. However, its main distinctive feature is the low adaptability of non-private companies to the requirements of the global market. De-nationalization can be carried out through:

- Direct privatization;
- Privatization of capital;

- Free transfer of key property to private individuals;
- Re-privatization.

Direct privatization is the sale of certain state-owned property to private individuals. This type of privatization dealt primarily with small and medium-size companies. So-called «small» privatization was carried out by central and local authorities. They privatized housing, land plots, design bureaus, commercial and service entities and other small companies. Small privatization transactions were conducted through open tenders to avoid incompetency in property appraisal.

Direct privatization of large companies requires finding buyers with significant resources of financial capital, who, at the same time, are able to carry the economic risk associated with obtaining the property. Hence, the key role in selling large enterprises is the sale of the larger share of the property to shareholders. Fully paid privatization of large companies, i.e. large privatization, however, faced certain obstacles. They appeared due to the shortage of national capital. The British experience of the 1980s demonstrated that the 10-year period of privatization allowed for the sale of barely half of the assets that ensured reproduction of nearly 10% of the GDP. In Poland, the scale of this initiative concerned more than 7,000 companies that generated approximately 50% of the GDP. Meanwhile, the savings of the population were estimated at 2-5% of the value of state-owned assets. It was also expected that declining real incomes of the population under pressure of rising unemployment would be spent on daily consumption of goods. From this perspective, the process of privatization using methods proven in developed capitalist countries failed to guarantee the rapid establishment of a market economy. The sale of companies after their restructuring and thorough appraisal of their value was slated to take decades.

Equivalent privatization of capital also often runs into obstacles that are technical, legal, and socio-political in nature. Objective appraisal of the value of enterprises is impossible in the absence of a developed capital market. The high level of supply with low demand and the difficulty of forecasting the future revenues of economies destabilized by shock therapy means that expert appraisals can easily be considered incompetent.

Another problem with the privatization of capital is the lack of precision regarding the legal status of property to which its former owners could lay claim. In its turn, post-war legislation and cultured principles of egalitarianism and the strong position of trade unions and the workers' self-administration was threatened by social claims.

Privatization of capital was also impeded by disputes about the competence, low efficiency of institutions, lack of a stable tax system,

and the inefficiency of economic policies of governments that were constantly changing.

The aforementioned obstacles of equivalent privatization of capital required the application of simplified appraisal procedures, such as:

- Employee shareholding;
- Public shareholding;
- Management privatization.

Although such procedures were considered acceptable, they are nonetheless supplementary methods of privatization. The notion of employee shareholding to its fullest scale, i.e. distribution of all shares in state-owned enterprises among their employees (Krawczyk, 1988), was challenged for several reasons, the main ones being that it:

- Does not help attract active investors due to the excessive dispersion of shares and limitation of their circulation. For this very reason, it cannot be a target stage of privatization;
- Contrary to the initial objectives it is unfair as it will not allow the unemployed to participate in property distribution. For this reason, it cannot be tested everywhere;
- Creates the risk that development of capital markets will be blocked, as it will freeze the circulation of shares for at least several years.

The theoretically more mature idea of public shareholding is being implemented in Poland according to the concept of E. Lewandowski and E. Szomburg (1988, 1990). This concept had the objective of providing all citizens with shares in companies or state-owned holding companies established for this purpose by the government, as well as in investment and pension funds. The advantage of this form of de-nationalization is that it eliminates state ownership very quickly. This concept of privatization from the viewpoint of legislation is fairer than the idea of employee shareholding. Pursuant to the law, this allows for the conveyance of proprietary rights to every citizen in full without any exceptions. As a result, there is a possibility that the broad public will accept the notions of private ownership and capitalism and simultaneously remove all obstacles to access to capital markets. At the same time, this will solve the moral problem associated with the need to justify the sale of assets to citizens who are their legal owners.

The notion of public shareholding, however, has its drawbacks and the proposed method for realizing the principle of «primary justice» is debatable. Nationalization also entailed the distribution of social benefits depending on the volume of spent assets. Due to this the equitable distribution of shares cannot always be perceived as fair. In this case, just as with joint employee shareholding, active investors are not likely to show interest. Therefore, holding a second stage of privatization to identify

owners that have the financial wherewithal to gain a controlling interest in a company is imperative. Factoring in the recession, inflation, and the overall decline in the real incomes of a significant part of society, particularly the unemployed, the transfer of shares of the impoverished part of the population becomes inevitable. This transfer takes place at an understated price due to the disequilibrium on the capital market and unequal access to information about the profits from owning certain shares.

The trend of substituting property shares with consumer disbursements would have brought the threat of a strong inflationary effect. From this perspective, the exchange of proprietary shares needs to be limited by the state, at least for some period, and the process of distribution of shares should be gradual. The high price of organizing the distribution of shares is an additional mechanism that would ease inflationary trends.

As it follows from the aforementioned, public shareholding delays the formation of efficiently operating enterprises and does not guarantee any basic qualitative changes in such activity in the future, seeing as it is unknown if the shares of all companies will be in demand to attract active investors.

Only non-equivalent privatization makes it possible to avoid the risk of inflationary pressure that originates due to free distribution of shares. The idea is to sell the shares of non-privatized enterprises at a price corresponding to people's purchasing power (Jędrzejczyk, 1990) or on credit taking into account a rise in people's incomes in the future (Woźniak, 1990). At the same time, non-equivalent privatization can be associated with employee or public shareholdings. The concept of non-equivalent privatization involving employee or public shareholding is less egalitarian and less attractive from the political point of view. Therefore, the leading political powers in Poland did not demonstrate any interest in this concept. Instead, they were more interested in direct non-equivalent privatization.

2.4.4. Privatization of management

The answer to the question of how to overcome the barrier of low national savings, thereby guaranteeing the mass participation of citizens in the ownership of large state-owned companies raised the issue of how to organize the proposal of such companies. Theoretically, there are a number of solutions here. It could have been thorough selection planned by the state privatization body (i.e. top-down forced privatization) or a spontaneous process as a result of decisions made by company employees and management.

Top-down «case by case» privatization is extremely slow and merely drags out the process of restructuring. The unclear status of large

companies slated for privatization would have threatened a further decrease in the efficiency of already inefficient self-management structures. The source of inefficient management at self-governing enterprises is the bureaucratization of managerial decisions. Its essence depends on many decisions, primarily, the competence of the company's supervisory board and trade unions. Control over decisions of the strategic directorate through the representation of the employees leads to a situation when the maximization of their revenues becomes the main criterion of choice. The interests of the collective formulated in this way contradict a company's long-term development strategy. That is why in order to avoid inefficient management at self-governing companies they proposed the privatization of its management, meaning its commercialization[17].

The commercialization concept implies the transformation of state-owned companies into state treasury unions, normalizing the principles of their operations in line with the decisions of the commercial code and delegating full decision-making authority to their directors with non-bureaucratic control on the part of the state. Commercialization understood in this way is merely a form of management privatization. Privatization of property is carried out only in the second stage through gradual granting of access to shares available in the state treasury to domestic and foreign private buyers. The combination of commercialization and distribution of shares in property could also have been feasible. The operations of commercialized companies would have been placed under the supervision of investors acting as intermediaries chosen precisely for this purpose, which would have amalgamated public and private capital, as well as national and foreign capital (i.e. mutual investment funds, holding companies, banks and social security funds). The key task of these trust institutions would have been the optimal placement of entrusted capital and supervisory boards would have been made responsible for monitoring the activities of investors-intermediaries.

However, such commercialization raises many concerns, namely whether these institutions will act in the interests of citizens-owners, as the latter have absolutely no control over the former. More likely, they will remain the bearers of particular political interests of the state administration. There is also a threat of monopolization of the economy on a greater scale than in the former sectoral ministries. One of the main obstacles under such conditions is the lack of potential managers in the country of this type of institution. Besides, there are concerns as to whether the changes in the legal form of supervision will guarantee active structural adaptations.

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[17] W. Kostrzewa, E. Sacks and A. Berg were the first to propose commercialization. See: Blaszczyk, 1991, p. 104.

2.4.5. Peculiarities of the legal base of ownership succession and relations

At the start of the transformation process the ownership structure of the Polish economy differed significantly from that of the rest of the socialist countries. Poland, unlike Ukraine and other former socialist countries, entered the process of market transition with a relatively stronger private sector. The specific feature of real socialism was considered to be, for example, private farming in Poland. The private sector, with the exception of the agricultural sector, in the early 1980s provided jobs for around 7% of the workers, but produced only 2% of the GDP. In the following decade, employment in this sector doubled and its share of the GDP rose to 7.4%. The leasing system became quite common in business. There were also cooperatives of individuals and the cooperative property was widespread in trade. According to statistics, more than half of total services were provided by the private sector.

Small private enterprises, private family farms, private trade and foreign companies from the diaspora in 1988 were supported by the decision of the Council of Ministers through the so-called nomenclatural societies. This opened the way for establishing private societies based on the property of private enterprises through leasing or transfer of property thereof to individuals closely related to the executive board of enterprises and resulted in the arbitrary seizure of property by party and government leaders of various levels (substituting power with property). However, this privatization mechanism did not provide possibilities for the transfer of ownership and, at the same time, opened the way to unequal access to information, loans, government guarantees, raw materials and supplies, which due to the deficit were not available to others. This very simple way of enrichment was the beginning of state capitalism and the interweaving interests of politicians and businessmen that eventually led to widespread activity outside the law and corruption.

During the period until autumn 1990, all transformations in the ownership of state-owned enterprises could be carried out based on the Law on State-Owned Enterprises of 1981 through the contribution of net assets of enterprises to the aforementioned societies.

The ambiguous legal interpretation of the «new private companies» and the fact that the state administered the process of entry into the business market created no possibilities for the formation of efficient market sectors. Nonetheless, the spontaneous development of the new private sector had a major influence on the subsequent transformation of ownership, rapid, spontaneous, and extensive development of new private enterprises and the economic effects of the Polish process of transition to market relations.

It should, however, be noted that in Poland, as in other socialist countries, the entirety of ownership, in the formal and legal sense, was attributed to the state. However, ownership rights were ambiguously defined, primarily as they pertained to private, state, and cooperative property, which played a dominant role in the services sector in Poland.

The broad restrictions as to the entirety of ownership also applied to the sectors in Poland that were not socialized in farming, workmanship and small industry. These restrictions implied concessions in obtaining permits to conduct small business, access of private entrepreneurs to the market, various economic resources, an authoritative manner of regulating these resources and the imposition of a number of administrative barriers that restricted the choice as to how much and how to produce (e.g. by imposing government prices).

The substantial reforms of ownership relations as they pertain to unambiguously defined rights of the person to the means of production, which is typical for capitalism, led to the adoption of the Law on Economic Activity in 1989, based on which obstacles that hampered the entry of entrepreneurs into the market were eliminated and equal rights for the private and public sectors were introduced. The subsequent changes towards widening the space for private sector expansion were based on the principles and guidelines of the program on systemic transformation in Poland proclaimed on October 12, 1989. They contained, inter alia, the declaration of establishment of an ownership structure similar to that in developed capitalist countries. Having adopted the declaration, almost six months later discussions began on drafting a privatization acceleration program. At the same time, the formation of the legal grounds for privatization and capital markets, being inseparably connected with private ownership, lasted for another several years. Unfortunately, attempts of legally regulate re-privatization did not succeed. The further changes aimed at broadening the space for private sector expansion, in addition to the aforesaid regulation, were also secured by:

- A new Civil Code adopted in early 1990;
- Law on the Privatization of State-owned Enterprises of July 13, 1990;
- Law on Public Exchange with Securities and Trust Funds of March 22, 1991;
- Law on Disposal of Agrarian Property of the State Treasury of October 19, 1991;
- The so-called Pact on State Entrepreneurship of February 1993;
- Law on National Investment Funds of April 30, 1993.

The previously mentioned legal grounds for privatization were not sufficient to ensure enough protection from irregularities observed during

the de-nationalization process. They did not prepare the relevant institutional infrastructure in the criminal law area. It created conditions for taking advantage of loopholes in the existing law. In connection with this, a shadow privatization market emerged and decisions pertaining to privatization could be taken arbitrarily, thus violating the required public control based on the existing number of individual shares. It was impossible to impose criminal penalties on the majority of illegal private and group profits obtained at the expense of the state budget and non-privatized enterprises.

Unfortunately, at that time there were no integrated standards for managing the property of not yet privatized companies or with the participation of the state treasury. Only in December 2002 did the newly adopted Law on Privatization and Commercialization of Enterprises introduce the mandatory election of boards of large state-owned enterprises or with the participation of the state treasury on a tender basis.

Despite all the existing legal loopholes in the transformation of ownership relations, Poland managed to create a private structure of the economy similar to those existing in member countries prior to joining the EU in 2004. However, privatization was a gradual process. Its specifics, as well as its ups and downs, can be food for thought about how to achieve success and avoid blunders in industries in which the transformation of ownership relations was incomplete or required further adjustments.

2.4.6. Development of the private sector in 1990—2007

The development of the private sector in Poland was due to:

- Expansion of private entrepreneurship;
- Establishment of new private businesses, their development or the liquidation of bankrupt entities and the possibility of other entities acquiring them;
- Leasing of small and medium enterprises often to existing management and part of its team;
- Top-down privatization of existing state-owned enterprises due to the sale of large entities conducted by the state, more often than not to foreign investors and less often to domestic investors, and only very rarely to trade unions;
- General privatization assisted by the National Investment Funds (NIF) program;
- Incidental re-privatization.

The institutional condition for private business expansion is the guarantee of the legal protection of equal right to market entry for national and international entities. It also requires banning concessions in economic activity. Thus, while the initiated development of private ownership was not considered sufficient, it turned out to be necessary. The pace of privatization due to the liberalization of ownership rights depended on the amount of accumulated private capital, access of investors to such capital and people's disposition to initiatives in the industrial, commercial, and service sectors.

The source of private capital in the inherited ownership structure of enterprises in post-socialist countries could have been earnings of citizens from their labor, loans they took out, and foreign capital investments. Low labor productivity and the resulting significantly lower real wages compared to developed capitalist countries meant that money accumulated by citizens was insufficient to start up a private company. Another substantial barrier was the absence of capital markets and lack of experience in starting up a small business within the framework of a joint stock company. The very high national and foreign debts, high inflation and the related shortage of financial loans, as well as the huge credit risk, made it more difficult to surmount these hurdles.

The disposition to invest in private industrial facilities is evidenced by the optimistic projections as to the expected business climate, all state budget regulations, tax regulations in the sphere of commercial and industrial policies and the interests of potential investors. Other obstacles to private business development were due to shock deregulation and shock from the impact of financial restrictions of the stabilization program. The turbulent changes in economic rules resulted in the loss of fundamentals for making efficient projections. Systemic changes in the political sphere were accompanied by uncertainties that did not facilitate the inflow of foreign capital, in particular, until 1994, when a memorandum of understanding related to foreign debt restructuring was signed between the Polish government and commercial banks. The actions to counteract them were to be government activities aimed at improving the attractiveness of investment in the country, tax preferences, freedom of transfer of capital abroad, a clear view on industrial policy, a stable framework of economic laws and economic policy, as well as progress in the adaptation of the institutional system to the standards required by the EU.

Private sector development after the emergence of new companies was fundamental in fostering entrepreneurship and private ownership. An enterprise structure characterized by the dominance of large companies

and the underdeveloped sector of small and medium enterprises (SME) was inherited from socialism in a deformed and neglected state. Therefore, transformation based on negotiations without a simultaneous dramatic increase in the number of new entities would have been under threat of negative consequences for economic efficiency, counteraction to unemployment and convergence towards the subjective structure inherent to a developed market economy. In Poland, this problem was successfully resolved in the first years of transformation due to the aforementioned relevant legal regulation.

Regarding the various gaps in statistics dealing with the SME sector and changes in criteria for the classification of economic agents, there is no precise information that would allow for estimating the role of establishing new private enterprises in the process of economic convergence. It is only possible to point out changes in the share of the entire private sector using certain economic indicators (see Table 2.1).

At the same time, statistics dealing with the change in the number of micro-enterprises and small enterprises, as well as many medium-size companies, is a good illustration of the process of setting up private enterprises (Table 2.2).

The available estimates demonstrate that while in 1989 there were almost 400,000 new businesses, in 1990-1992, on the average each year there emerged 250-300,000 newly registered civil unions (Chmiel, 1999: 15); however, in the following years the growth in the number of new businesses started to slow down. So, starting from 1990 until joining the EU (2004) over 3 million new private businesses were created in Poland.

Nevertheless, one should bear in mind that a significant number of registered private companies did not conduct any business activities, the same with micro-enterprises and entities that employed less than 5 persons.

The most interesting, ingenious phenomenon of the early years of transformation in Poland was so-called small privatization. It set off a avalanche-like process of people buying stores and other municipal property in the transport and construction sectors in 1990-1991, mainly through buy-back contracts. As a rule, buy-back contracts were signed with employees that worked in these sectors up until that time. Open tenders or bidding competitions in which all those interested could participate were held for only a small percentage of non-privatized assets.

In 1992-1994, there was a considerable slowdown in the establishment of new private businesses. The acceleration of economic development caused a repeated dynamic increase in the number of new businesses in 1996-1999.

Table 2.1

SHARE OF THE PRIVATE SECTOR IN SELECTED ECONOMIC INDICATORS in 1990—2007, %

Indicator	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Share in the total number of employed (as of December 31)	48.9	54.3	56.0	58.9	60.6	62.8	65.0	68.2	70.6	72.3	72.1	73.1	73.8	70.1	70.9	71.6	72.2	73.7
Share in GDP	30.9	42.1	45.4	47.9	46.4	49.9	51.6	58.7	60.9	61.3	61.2	62.8	62.7	65.0	66.2	66.2	67.1	67.3
Share in industrial products sold	18.3	27.0	28.3	34.5	39.4	46.8	52.0	64.2	69.1	70.1	71.3	75.3	77.7	78.0	80.9	82.4	84.2	84.6
Share in retail	63.7	82.8	86.4	89.1	90.8	92.4	92.9	94.4	95.0	95.1	95.1	97.7	98.0	98.1	98.4	98.6	98.6	98.6
Share in investment expenditures	41.3	40.8	44.0	42.9	44.1	44.2	46.0	53.4	57.8	62.1	65.2	68.1	68.2	68.3	68.1	65.1	65.1	68.0
Share in the cost of imports	14.4	49.9	54.5	59.8	66.9	69.7	75.0	82.5	86.5	87.3	84.2	90.7	92.3	93.0	91.7	90.3	95.7	87.6
Share in the cost of exports	4.9	21.9	38.4	44.0	53.2	56.8	62.0	74.3	78.8	81.0	83.6	86.4	88.7	89.5	88.1	87.4	93.2	87.3

Source: Statistics Yearbooks for 1991—2006, GUS, Warsaw, 1991—2006; Abridged Statistics Yearbook, GUS, Warsaw, 2007.

Table 2.2

CHANGE IN NUMBER OF ENTERPRISES (FROM REGONAL REGISTER) IN POLAND in 1989—2004 (as of December 31)

Items	1989	1990	1991	1992	1993	1994	1995	1996	1997
Total (thousand)	no data	1 205.5	1 504.8	1 731.7	1 988.1	2 302.0	2 099.6	2 379.9	2 552.6
SME (thousand)	no data	no data	1 499.0	no data	1 980.7	2 294.7	2 093.1	2 373.5	2 546.4
Micro-enterprises (thousand)	636.4	882.1	1 113.5	1 131.5	1 812.3	2 109.6	1 921.2	2 181.9	2 359.3
Small enterprises (thousand)	194.6	259.4	360.7	569.8	144.9	160.6	148.8	167.5	162.5
Medium enterprises	no data	no data	24 775	no data	23 496	24 474	23 218	24 062	24 603
SME share in the total number of enterprises, %	98.5	no data	99.6	99.5	99.6	99.7	99.7	99.7	99.75

Items	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total (thousand)	2 792.7	3 013.9	3 182.6	3 375	3 521.2	3 644	3 671	3709	3726	3775
SME (thousand)	2 786.5	3 007.4	3 147.1	3 368.4	3 514.9	3 638	3 659	3701	3721	3770
Micro-enterprises (thousand)	2 591.5	2 865.5	3 029.9	3 206.5	3 346.9	3 463.2	3 486	3517	3535	3581
Small enterprises (thousand)	169.5	113.1	117.2	131.1	137.6	144.6	149.2	154	156	159
Medium enterprises	25 452	28 870	29 102	30 809	30 398	30 106	30 029	30149	30209	30270
SME share in the total number of enterprises, %	99.8	99.8	98.9	99.8	99.8	99.8	99.8	99.83	99.86	99.88

Source: Craft, Small and Medium Enterprises Statistics Department MG and Report on the Situation in the SME Sector in Poland in 1996—1998, Polish Fund for Promotion and Development of Small and Medium Enterprises, Warsaw 2000; Report on Small and Medium Enterprises in Poland in 2000—2001, Polish Business Development Agency, Warsaw 2002, p. 331; Key statistical data on economic activity of small entities employing less than 5 persons, GUS, Warsaw, 1994, p. 18; *W. M. Grudzewski*, *I. K. Hejduk*, Small and Medium Enterprises in the Market Economy in Poland, WSHIP, Warsaw, 1998, p. 28; Report on Small and Medium Enterprises in Poland in 2001—2002, Polish Business Development Agency, Warsaw, 2003, p. 311; Report on Small and Medium Enterprises in Poland in 2002—2003, Polish Business Development Agency, Warsaw, 2004, p. 349; Report on the Situation in the SME Sector in Poland in 2003—2004, Ministry of Economy, Warsaw, 2005, p. 130; Report on the Situation in the SME Sector in Poland in 2004—2005, PARP, Warsaw, 2006, p. 15.

The most popular form of employee shareholding in Poland was leasing of state-owned enterprise assets. This method of privatization was specific to Polish de-nationalization in the first years of economic transformation. By mid-1994, in nearly 75% of cases direct privatization was carried out through workers' leasing. The key reasons were as follows:

- The right of first purchase was granted to employees of non-privatized enterprises;
- State loans were issued to the workers' union at low interest rates;
- The enterprises transferred to the workers' union were usually appraised at a lower value than when they were offered for sale to foreign investors;
- The union that claimed to intercept the state-owned enterprise via leasing by employees could dispose of only 20% of the non-privatized facility fund, while only 50% of the employees were forced to join the union.

In the second half of the 1990s, the symptoms of the employee leasing crisis began to appear. The revenues of worker's unions increasingly frequently turned out to be lower than those of enterprises privatized with the participation of the domestic or foreign capital. Allowing for the acute competition and due to the spreading repercussions of local financial crises in the global economy, workers' unions burdened with leasing contributions began losing their economic and financial form, the possibilities for modernization, the chances of development and their competitive position. In this context, the problem of searching for strategic investors emerged. In 2000, the secondary privatization process was launched and the redemption of workers' shares by the top management of the respective unions was introduced. Due to this process, the attempt to build «people's capitalism» in Poland through distribution of property among the employees via leasing failed to meet the expectations and turned out to be just a temporary and longer route to private ownership, which indeed would have been capable of overcoming competition in conditions of global capitalism.

Another attempt to distribute property was made through the National Investment Funds (NIF) program based on the notion of public shareholding. It was implemented according to the ideas of E. Szomburg and E. Lewandowski (who was subsequently appointed privatization minister), which were adapted to social and political expectations. Due to a nearly 5-year waiting period for legal regulation and introduction of this program based on the Law on National Investment Funds and their Privatization adopted only on April 30, 1993 it included only 512 unions, the total value of which did not exceed one-third of the value of shares

issued by PKO BP SA sold on the Polish stock exchange in 2004. Usually, the NIF considered these unions and those that had not been privatized to be of a lower status.

To implement the NIF program 15 investment funds were set up to be managed by companies selected under the control of a State Treasury official. Their legitimate purpose was to increase the value of the NIF assets and find an outside investor to effectively restructure the partner union that it had purchased.

At the same time, shares distributed for free among citizens (one in each NIF) could be freely circulated on the stock market as well.

According to experts, the economic purposes of privatization supported by the NIF were not realized effectively or efficiently. Although the economic efficiency of partner unions usually did not deteriorate, they failed to create any added value for their shareholders. There were also no perceptible improvements in the restructuring of partner unions.

The ownership structure of the partner unions did not coincide with the main objectives of the NIF. Seeing as the State Treasury held 25% of the shares, 15% were owned by employees and 27% were controlled in equal proportions by all other NIFs, the fund in charge of restructuring the one-tier unions only had 33% of shares, which formally made it the minority shareholder, frequently depriving it of the possibility to make market decisions about restructuring provided that an outside investor had the financial wherewithal to buy out the worker's shares, certain minority share packages in the State Treasury and through investments on the stock exchange.

The program of comprehensive privatization brought few results in the distribution of property and the development of the capital market. The citizens dumped their shares in the NIF en masse.

The Polish experience of free distribution of property among citizens through investment funds cannot serve as an example that should be followed. This form of privatization solutions should be avoided, as they do not lead to a rapid increase in economic efficiency of non-privatized enterprises and delay their restructuring.

The privatization of state-run companies was an extremely controversial issue at the public and media levels almost from the very outset. The most controversial issue was the sale of large state-owned companies to foreign businessmen. Unsubstantiated rumors often emerged that foreign investors obtained the most efficient Polish enterprises of strategic importance for the economy for next to nothing. Major pressure for the hasty sale of large enterprises was stipulated by the need to eliminate the excessive budget deficit and pay large portions of

restructured external debts. These pressures led to many mistakes. As a result, in 2002 private banks with foreign capital had more than a 97% share of assets and revenues of all private banks, and employment was nearly 95.5%. However, the state owned about 25% of the assets, 24% of the revenues and 36.9% of employees of commercial banks (Lista 1500…, 2003). The metallurgy, cement, sugar, and insurance sectors were privatized inefficiently. The foreign investors that injected capital into the premature acquisition of almost all industries that given the booming economic expansion of China and India and the related improvement of global market conditions had all the opportunities to restructure them at their own expense.

Often private domestic entrepreneurs were accused of having better access to purchasing state-owned enterprises than the workers' collectives. The aforementioned loopholes in the criminal laws and ineffective supervision of property created opportunities for the abuse of power. However, it should be noted that errors in property appraisals, departures from the mandatory rules and even financial efforts had no great impact on the economic implications of privatization, the improvement of economic efficiency and fulfillment of the assumed investment obligations and requirements of the personnel of non-privatized enterprises.

M. Bałtowski and M. Miszewski (2006: 243) calculated that taking into consideration the risk of investment in Poland in the early 1990s, the potential profits by foreign investors of 12-13 % over the set period of return on investment in Poland should be considered correct. They support the theory popular among privatization opponents of K. Poznański saying foreign investors purchased the assets of non-privatized enterprises for a mere 10% of their actual value. They assert that the magnitude of the actual value of property sold to foreign investors with the US $232 billion estimated by Poznański would have made sense if with a 10-year payback period the rate of return amounted to 60%. These estimates do not coincide with the actual figures, since the return on invested capital should not exceed 12%, even if you assume that actual profits were higher than estimated.

Re-privatization played a significant role in accelerating the process of establishing a capitalist economy. The aim of re-privatization is returning the nationalized and illegally alienated property to its former owners. Re-privatization in Poland demanded the abolition of the Law on Nationalization of January 3, 1946 and the possible recognition of the former owners' claims regarding compensation for alienated property.

There are serious obstacles of an ethical, legal, and economic nature to the full abolition of the law on nationalization. From the

ethical point of view, the abolition of this law would have required cancellation of the law on agrarian reform. The re-privatization of property distributed based on the Decree on Agrarian Reform, which meant change of ownership after its sale, would have been illegal. Besides, many of the nationalized enterprises or illegally confiscated property was after several decades subject to physical deterioration or destruction. However, the rest were modernized or expanded. In view of the aforementioned obstacles, the practical method of compensating damages to the former owners of nationalized assets would be payout of compensations. The lack of funds in the budget meant that these compensations should have been paid in the form of shares in the non-privatized assets.

However, the parties thereto failed to reach a consensus on who was eligible for compensation. Despite the dozen re-privatization draft laws that followed, the legal framework for regulation of the re-privatization claims was still lacking. In practice, the basis for re-privatization became the Constitution of 1997, stipulating that the re-privatization claims would not breach the rights acquired by third persons and would be limited to cases of nationalization not related to the Law on Nationalization of January 3, 1946, as well as the Presidential Decree on Forced State Management of December 16, 1918, which was implemented with gross violations.

Contrary to the fears that re-privatization in Poland would be suspended, it is an exceptional phenomenon among the post-socialist countries that it did not slow down the privatization processes, although in some instances it was not possible to conduct privatization.

Eighteen years of experience in the transformation of ownership relations in Poland proved that the convergence of ownership rights with those existing in developed capitalist countries and achievement of a similar subjective structure of the economy are possible. In 2005, the participation of the private sector in most of the sectors of the economy in Poland was only several percentage points lower than in the developed nations of Western Europe, fluctuating around 90%. The decrease in state ownership to 10% requires the privatization of 350-450 enterprises, which can be accomplished over the next few years.

The share of foreign capital in revenues of and employment at 1,095 of the largest companies is over 60%. However, it was foreign capital not national owners of these companies that ensured a slightly higher level of labor efficiency. On the same list of the largest companies, 70% of them are represented by new entities where the labor efficiency is a minimum of 25% higher than that of privatized enterprises (Bałtowski, Miszewski, 2006, pg. 248-254).

2.4.7. Conclusions

The above facts prove that economic convergence can be accelerated by the establishment of new large private enterprises and privatization with the participation of foreign capital. At the same time, leasing of state-owned enterprises accelerates privatization the most, while the distribution of property through labor and public shareholdings delays the formation of an ownership structure with an effective strategic investor.

Regarding existing state-owned property, a major and extremely important problem is the introduction of an improved system of ownership supervision, which is to ensure the effective use of the investors' capital, adherence to business ethics, responsibility of management boards to their shareholders and co-owners, and the guarantee of a long-term strategy of survival on open markets.

The most significant errors in privatization include the lack of a long-term privatization plan that would contain the list of companies and strategic sectors in which the state should maintain a dominant position or exclusive rights.

Another fundamental mistake in privatization is the inadequate care about the quality of laws that would protect and foster private ownership, as well as regulate the state's ownership supervision of public sector entities.

Social conflicts, social resistance to privatization, and high unemployment are inevitable side-effects of the transformation of ownership relations. While they can not be avoided, it is possible to mitigate them by choosing the appropriate method of privatization and adopting quality legislation that would guarantee equal and free access to the market and would render impossible the use of privileged positions by various interest groups in the privatization process.

2.5. Evolution of the macroeconomic stabilization policy

2.5.1. Phases of economic growth

The process of transitioning to market relations introduced fundamentally new mechanisms for the regulation of economic growth in Poland. That said, even prior to the EU accession similar macroeconomic conditions existed starting in the '80s[18]. This was evident in the significant fluctuations of macroeconomic parameters of economic growth and the subsequent

[18] See M. G. Wozniak, *Zmiennosc tempa wzrostu gospodarczego w socjalizmie,* «Ekonomista» 1985, nr 3, s. 437—454.

limitation of the business cycle to a 10-year period, as well as in the tendency to maintain a low level of economic growth.

If one were to take changes in GDP and other macroeconomic parameters, as well as adjustments by economic players and macro-regulatory processes accompanying the transition to market relations, to represent economic growth in Poland in 1990-2006, five phases of economic growth can be identified within this period (Tables 2.3 and 2.4, Figure 2.1):

1) Transformational recession arising from the transformational shock (from early 1990 until the end of 1Q1992);

2) Turning point marked by slow economic growth (1992 — except for 1Q1993);

3) Accelerated economic growth and an active period of changes by businesses, characterized by impressive growth by European developmental standards (1994—1998 until the August financial crisis in Russia);

4) Fading economic growth due to external financial shocks and the business climate freeze policy (from 4Q1998 until the end of 2003);

5) Return to accelerated growth and effects from the EU accession (since 2004).

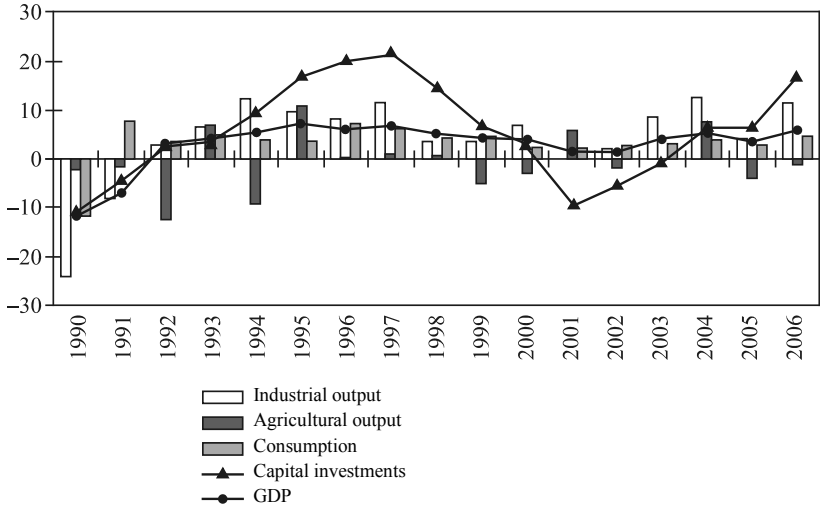

Figure 2.1. Average Annual Growth Rates of Select Macroeconomic Indicators in Poland, 1990—2006 (%)

Source: Statistics Yearbooks GUS: 1993, Table 2 (214), p. 130; 1994, Table 2 (216), p. 139, Table 1 (403), p. 377, Table 11 (413), p. 369, Table 10 (224), p. 144; 2001, Table 3 (545), p. 542, Table 1 (403), p. 377, Table 4 (356), p. 345, Table 18 (560), p. 559; 2003, Table 3 (567), p. 580, Table 1 (420), p. 406, Table 4 (370), p. 370, Table 18 (582), p. 598; Abridged Statistics Yearbook GUS 2002, Table 5 (276), p. 446, Table 1(212), p. 328, Table 2 (186), p. 290, Table 1 (266), p. 428 and 452; 2004, Table 5 (227), p. 438, Table 1 (210), p. 319, Table 2 (184); Statistics Bulletin, p. 282; GUS 8/2004, Table 1, p. 24.

Table 2.3

ECONOMIC GROWTH IN POLAND BY PHASE in 1990—2007 (selected indicators)

Item	1990—1991	1992—1993	1994—1998	1998—2003	2004—2007
Annual average growth (%):					
GDP	– 9.3	3.2	6.0	2.8	5.4
Industrial output	–15.6	4.6	9.2	4.6	9.7
Agricultural output	–1.9	–3.0	1.7	–3.3	2.0

Source: Own estimates based on sources, as in Figure 2.1.

Table 2.4

FLUCTUATIONS OF DEMAND IN POLAND DURING CERTAIN PHASES in 1990—2007

Item	1990—1991	1992—1993	1994—1997	1998—2003	2004—2007
Annual average growth in consumption (%)	–8.1	2.9	7.3	2.9	4.0
Annual average growth of investments in gross increase of capital stock (%)	–7.5	2.6	17.6	2.6	13.1
Imports, in USD bn (annual average)	10.7	17.4	32.6	52.6	119.6
Exports in USD bn (annual average)	11.9	13.7	22.6	36.3	102.8

Source: own estimates using sources, as on Figure 2.1. and Statistics Yearbooks GUS; 1992, Table 1 (224), p. 138; 1995, Table 1 (678), p. 526, Table 1 (603), p. 452, Table 2 (646), p. 497; 1997, Table 7 (624), p. 437, Table 1 (659), p. 473; 1998, Table 16 (560). p. 555; 1999, Table 4 (479), p. 442, Table 5 (518), p. 501; 2001, Table 16 (658), p. 558, Table 4 (475), p. 429, Table 1 (612).

A highly volatile GDP reading, which fluctuated from 11.6% in 1990 to -7.0% in 1995, was a common economic feature in 1990-2006. The instability was even greater in industry, construction, and investments. We emphasize that Poland was not an exception among other post-socialist countries in this respect. The magnitude of Poland's fluctuations in GDP and industrial output was the smallest among peers, but generally not much different from those recorded in the Czech Republic, Slovakia, or Hungary (Bożyk, 1999: 54 and the following).

The strong GDP growth was closely related to growth in industrial production. This implies that during the period of relatively fast GDP growth in Poland, there was also an increase in industry's share of added value in the sector structure of the created GDP (*Struktura gospodarki transformującej ...,* 2000: 45). An inverse relation was also seen, i.e. when GDP growth stagnated, the share of industry shrank. This peculiar relation between economic growth and industrial production shows that the service and agriculture sectors in Poland were the weak points contributing to the instability of economic growth. At the same time, this suggests that the strong GDP growth was primarily related to still-strong domestic demand, especially in investments. Decelerating economic growth also depends, first and foremost, on domestic demand. In this case, however, the major role belongs to domestic consumer demand.

Before joining the EU, export demand was not able to offset the economic fluctuations. GDP could slow at the same time as exports grew; it could also increase when export volumes saw no significant change. This means that domestic demand remained the major driver of economic growth. This trend is explained by the high share of consumer demand in GDP (52-57%) and the insignificant progress by the Polish economy to integrate with globalization processes. Prior to EU accession, that trend's effects primarily manifested themselves in foreign competitors pushing out domestic products, and to a lesser degree in the modernization of production, productive facilities, and management methods. Only joining the EU could help improve the situation.

In Poland, the high economic growth rates allowed it to narrow the gap in terms of its divergence to the average level of per-capita GDP seen in EU countries. This would only be possible, however, when the traditional elements of demand, i.e. household consumption, investments, and export, become the driving forces in the development. It became impossible to implement a strategy aimed at catching up to EU countries in times when the situation on global markets deteriorated. An export-oriented strategy did not lend itself well to this type of strategy. At the same time, high rates of domestic demand growth put pressure on the trade balance and balance of payments. Since a simultaneous increase in investment, consumer demand, and export brings with it the risk of overheating an economy, it would become necessary to close the gap in several phases. It was expected that Poland's EU accession would make this process a continuous one.

Economic policies that prioritize high, sustainable, long-term economic growth require a much different production structure than in place currently since the existing structure — focused on long-term high GDP growth rates — is much too dependent on imports. Following EU

accession, the Maastricht criteria and recommendations arising from the Lisbon strategy set the framework for sustainable economic growth. Therefore, the stabilization policy should take into account a budget deficit ceiling of 3% of GDP, a public debt-to-GDP ceiling of 60%, and low inflation benchmarks. At the same time, in 2007-2013 the country will need to implement policies related to social and economic consolidation aimed at:

- Improving the attractiveness (convergence) of the regions by ensuring the appropriate quality of services;
- Supporting innovation, entrepreneurship, and the development of a knowledge-based economy;
- Creating improved jobs and increasing investments into human capital.

2.5.2. Determinants of the transformational recession

The implementation of the government's stabilization program and system transformations resulted in a transformational recession. The authors of the program, while adopting it back in late 1989, relied on a concept put forth by the International Monetary Fund based on an economic stabilization program tested on debtor nations. The program aimed to ensure that a debtor nation would become solvent once again. In Poland's case, the transition to market relations should have been the program's focus.

The authors of the stabilization program called for a neo-liberal approach. In doing so, they limited the program to a set of macroeconomic tools dealing with budgetary and monetary policy, and at the same time chose to move forward with the rapid, one-off, shock program. The program promised to stop the inflationary spiral by reducing price growth to 1-2% monthly already in the second half of the year.

In order to limit aggregate demand at the start of the program, real prices were set for basic materials, foreign currencies, and loans. As a result, the share of liberalized prices grew from 50% to 90%. Simultaneously, the government cut subsidies to improve price relations and nearly eliminated all food subsidies. State prices were raised sharply depending on the type of consumer (e.g., coal prices by 400% and 600%, electricity by 200% and 500%, transportation tariffs by 200%). Theoretically, a complete freeze on wages through the excess wage tax (the so-called second nominal anchor) should have helped ensure a decline in excessive demand. In practice, this meant that wages grew three times slower than prices in January and five times slower from February to April.

With the goal of decreasing inflation, which had until then been done via soft budget caps, the government adopted the general principles of a balanced state budget and stopped issuing interest-free loans to cover the budget deficit. They also planned to cut subsidies from 31% to 14% of government expenditures, reduce centralized investments and other unnecessary government spending, limit tax privileges, and introduce strict control over the timely collection of tax liabilities by increasing penalties on delayed payment.

With the economy saturated with imports and the inflationary nature of the artificially understated official exchange rate that made it impossible to increase revenues by speculating on the informal market, a permanent exchange rate was adopted as the principal nominal anti-inflation anchor during the first stage of stabilization. This exchange rate was set as the weighted average of exporters' rates pro-rated for the expected inflation on a three-month horizon.

The effective exchange rate, which became mandatory in December 1989, was subsequently adjusted to account for inflation expectations to ensure its stability. This approach was later revised significantly.

Restrictive monetary policy and the attempt to set an effective interest rate completed these major stabilization initiatives. In practice, this meant a departure from the practice of automatically issuing money to cover the budget deficit, limiting currency issuance and the supply of loans to companies, the elimination of subsidized loan rates, the positive real level of deposits and credits, and the considerably higher effective interest rate for zloty deposits than foreign currency ones.

In order for a program designed in this manner to succeed, the government would need to implement the program and society would at the same time need to survive the inevitable hardships in the form of declining real incomes and unemployment.

The program's authors recognized that this type of stabilization package would give rise to recession tendencies. They expected (too optimistically, as it later turned out) national output to drop by 3.1%, industrial production to decline by 5.0%, consumption to shrink by 1.0 %, real wages to drop by 20%, and the ranks of the unemployed to increase to 400,000. They believed inflation would decelerate by almost 1% each month starting from the second half of 1990, the USD exchange rate would stay at 9,500 zloty, and that the turnover surplus from payment area I would be about 0.5 bn rubles[19], while the deficit from payment area II would be 0.8 bn US dollars.

[19] At the time, Poland had certain rudimentary indicators associated with its membership in the CMEA (Council for Mutual Economic Assistance), which provided for the operation of two payment areas. Payment area I was estimated in so-called transferable rubles. (*Note by Ukrainian editors)*

The implementation of the stabilization program and system transformation failed to meet expectations. The program caused a deep recession not seen since the Second World War (Table 2.5). The shock transformation manifested itself in the greatest decay of production in Poland's post-war history. GDP collapsed by nearly 20% and industrial production fell by 34% from 1989. Unprecedented inflation accompanied the recession. Significant and increasing unemployment (11.8%) and a drop in aggregate demand came next.

Table 2.5

RESULTS OF THE STABILIZATION PROGRAM in 1990—1991

Annual change, %	1990	1991
1. GDP	–11.6	–7.5
2. Industrial production	–24.2	–11.9
3. Agricultural production	–2.2	–1.6
4. Unemployment	–6.3	–12.2
5. Inflation, annual average CPI*	585.8	70.3
6. Real supply of the national currency	40.0	0.2
7. Investments into long-term resources, gross	–10.6	–4.4
8. Gross return, total	29.4	8.3
9. Net financial result, total	…	–1.3
10. State budget balance, % GDP	0.4	–3.8
11. Real wages	–24.0	1.0

* CPI — Consumer Price Index.

Source: Statistics Yearbooks GUS: 1991, Table 19 (191), p. 107; 1992, Table 19 (191), p. 109; Table 13 (276), p. 168, Table 24 (247), p. 148, Table 34 (257), p. 156, Table 31 (253), p. 152, Table 1 (244), 2 (255), p. 138, Table 4 (295), p. 191.

Alongside the above transformational outcomes, the recession was primarily caused by:

- A 15.4% decrease in investment expenditures. A considerable portion of already implemented investment initiatives proved redundant due to the decrease in demand, while the remaining companies (whose debts were mounting) lacked the necessary resources. However, recreating an imperfect structure for the depreciated productive facilities was irrational in view of the new requirements of an economy going through a difficult transition to the market;

- A drop in demand caused by reduced arms spending, both in Poland and abroad, due to the disintegration of the Soviet bloc[20];
- The loss of eastern markets, including the former GDR, due to the collapse of the CMEA, the appearance in Poland of recession-linked processes, and systemic changes in post-communist countries;
- A decline in personal incomes (-10.4%) due to a 25%+ decline in real wages, the establishment of real prices and consequent 400% inflation, and the considerable absorption of this demand by the competitive supplies of imported goods;
- A decrease in balances due to the elimination of the deficit-based economy and the introduction of the rationalization of production costs.

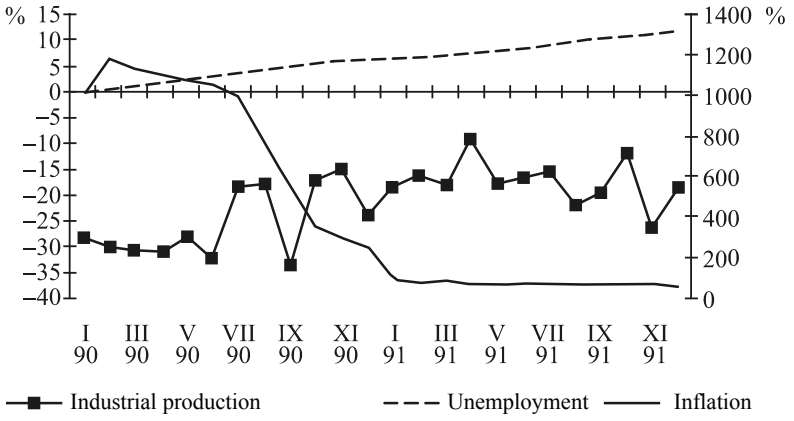

Figure 2.2. Monthly Changes of Selected Macroeconomic Indicators in Poland in 1990-1992 (inflation, unemployment and industrial production trends against the same period in the previous year)

Source: Statistics Bulletins GUS: 1991, no. 4, May, Table 10, p. 28, Table 29, p. 49, Table 39, p. 60; 1992, no. 12 January, Table 10, p. 28, Table 28, p. 46, Table 39, p. 60.

In terms of the de-capitalization of national assets started in the mid-'70s the reduced share of accumulation in GDP distribution was the most dangerous recession tendency.

The shock stabilization therapy also affected all consumer drivers of economic growth (consumption by 8.1%, real wages by more than 24%, government spending due to the elimination of the budget deficit in 1990,

[20] This refers to Poland's withdrawal from the Warsaw Treaty Organization (a military and political organization of socialist states).

investments by 15%, and exports caused by the disintegration of the CMEA and the Persian Gulf conflict). However, inconsistencies between the structure of industrial production and services supply and demand in the open market were the main drivers of the decline in production rather than any shortcomings in the stabilization program (as believed), although they also played a significant role (Woźniak, 1993: 229—244). Very generally, these mistakes came down to the following:

- An underestimation on the part of the program's authors of the low flexibility of national production and the low adaptability of companies to the transformation shock, whose magnitude was clearly underestimated;
- An underestimation of the inertia of expectations on the part of paternalistically oriented economic players and the resulting game of «wait for the end of restrictive policies»;
- Excessively restrictive fiscal and monetary policies and wage control mechanisms through the excess wage tax.

The stabilization program's aforementioned mistakes due to the requisite system changes resulted in a deep demand and supply shock. In reality, this shock was needed to spur the large-scale restructuring of production and productive facilities. In reality, this shock proved extremely strong. Amid inertia and passive changes, the supply gap was increasingly being filled with competitive imports.

The economic policy's mistakes cannot justify the fact that the sharp decline of production in Poland, like in other countries undergoing a transformation, was directly related to the shock process of transitioning to market relations. At the same time, the gradual transition to market relations in member states of the Commonwealth of Independent States indeed resulted in a less intense, but longer recession than in Poland.

In the most general sense, the stage of transformation shock was characterized by a dominant wait-and-see attitude, passive changes, and protective strategies. Market participants' protection of their businesses brought numerous changes, including halting production of slow-moving goods and increasing output of fast-moving goods, improving product quality and design, and cutting redundant personnel. These changes could have been implemented over a short time period. A common feature of the transformation shock and turning point stage is the clear dominance of the protective and passive changes, which primarily gave rise to quantitative changes and the inertia of numerous obstacles for supply flexibility. At the same time, there were elements that differentiated these stages, namely the more frequent attempts in 1992-1993 to abandon protective strategies, which triggered the gradual development of small active changes that started to eliminate supply obstacles in the economy's development.

In 1990-1991, the vast majority of enterprises[21] found themselves facing obstacles that were nearly impossible to overcome. They included high and unpredictable inflation (80-50% per month), which made it impossible to keep accurate economic accounting of alternative costs, the unexpected and dramatic drop in demand, the complete inability of the companies' management to act proactively and address challenges that emerged due to the sudden monetary shock, the impact of foreign competition and fluctuating demand, the deficit of own financial resources and the increasing difficulty in obtaining them externally, as well as growing payment arrears. All of these factors, irrespective of a company's area of activity, had a decisive impact on the nature of the market and changes in production. Naturally, this does not imply that active changes were completely impossible. Rather, they did not occur because of excessively high credit and inflation risks or for fear that the government would return to paternalistic practices.

The consciously chosen strategy of expecting tight monetary policy and fiscal restrictions, or of depending on macroeconomic populism, was the result of the prevalent belief that the stabilization policy was a failure and that it would lead to an imminent fiasco, a view that was unfortunately supported by many politicians and mass media outlets. Changes in monetary policy also contributed to the belief. During the transformation shock stage all of these factors led to a situation in which production and turnover were mainly the result of passive changes by companies to the demand structure. For instance, in 1Q1990 the country's production and structure of production were unchanged, but because of price shocks, manufacturers were producing mainly for inventories. Plans to change the range of products began emerging only after several months of operating under the new conditions. Producers mostly relied on the structure of orders or the expected amount of demand. Most companies, despite the ongoing decline in orders, were not planning to reduce output until their warehouses were completely overstocked; they were banking on the government's promises to overcome the recession by mid-1990 or at least return to partial macroeconomic regulation by the state, which had been in effect until 1990. Besides, during the period in question, the share of exports in the value of sales remained unchanged.

Over time, the process of quantitative changes began to spread systematically, though with numerous obstacles and complications. However, the manufacturers and suppliers were still not bringing in qualitative changes in response to consumer expectations.

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[21] The research results dealing with changes by companies to the transition to market relations and the government's and NBP's stabilization initiatives are presented in: Wozniak, 1998.

The government's coordinative actions in the second half of 1990, which envisaged an increase in price administration, a lowering of the wage indexation coefficient, and a suspension or reduction of customs duties, served to spur inflation higher once again. The fluctuations of still-elevated inflation, growing prices, shrinking returns on exports, and the loss of markets of the former CMEA countries in 1991, strengthened the tendency for passive changes. The expectation that the stabilization program would be amended became increasingly more pronounced. However, the dramatic decrease of exports to Eastern European markets, restrictive barriers for entering Western European markets, and the domestic market's over-saturation with imported consumer goods (not always of the appropriate quality) forced domestic enterprises to try and modify production ranges. At the same time, the most active companies proved to be the ones that had some experience of competition, and they emerged in early 1991. In the meantime, in a product class where the manufacturer held a monopoly, product modifications were exceptional and embarrassing.

The aggravation of the financial situation resulted in changes in resource management. Whereas in 1990 goods were produced for inventory, a year later the focus was on reducing the resources used in finished products and adapting an entire production process to a specific order. Still the warehouses were full of products that failed to meet consumers' new requirements, having been manufactured back in early 1990. We note that these inventories were amassed not just because of an inability to anticipate changes. Rather, it was often because consumers reneged on earlier-signed contracts due to delays in filling the orders and weaker demand on eastern markets. There were also dramatic changes in the area of resource supply. The time when suppliers dictated terms disappeared in 3Q1990. However, another problem emerged in the supplies area, related to payment difficulties.

Amid the dramatic and continued decline in demand, efforts were made to enter new markets. Efforts were mainly limited to fighting for a share of trades, exchanges, advertising in newspapers and radio, and it was mainly executives themselves seeking out the orders and organizing export trades. Sometimes, price discounts were offered for bulk purchases. Some attempts were made to preserve export markets that could hold future potential. Efforts included cases of periodic compensation for exports and increased volumes. On the territory of the former USSR, after the deterioration of trade, efforts were undertaken to organize new economic initiatives and promote barter opportunities.

2.5.3. Drivers and obstacles of economic growth during the period of the turning point in the transformational recession

The turning point stage, from April 1992 to the end of 1993, is associated with a change of economic policy. Public protests prompted the chief architect of economic policy to be replaced. The new government declared a change in policy priorities towards supporting proposals to end spiraling inflation. The introduction of interventional instruments in this respect made it possible to initiate the process of restructuring foreign debts with the signing of an agreement with the Paris Club. Among the priorities of the economic policy were control over the budget deficit and its gradual reduction, spurring supply through a more rapid increase in money supply versus GDP growth, easier access to funds for enterprises, implementing an exchange rate policy capable of ensuring an external balance. Debts were also brought in to help solve the problem. Companies that had expected a return to paternalistic government policy now understood that the transition to a market economy and fixed financial rules were inevitable. These circumstances became a strong driver for the polarization of companies' operations and the gradual development of small, but extensive changes. However, the start of the process of emerging from recession should be still associated with companies adapting to the rules of the market game.

In 1992, the decline in turnover volumes slowed, and structural changes and a differentiation of companies' efforts to change appeared. Enterprise leaders — mainly medium-size firms and to a lesser extent small businesses, privatized firms, and companies making final preparations for privatization — began to appear and were marked by intensive activity.

These leaders were characterized by a propensity to develop new strategies and use societal changes for their own development. They made huge efforts to fill existing gaps on the domestic market. There were frequent attempts to introduce (with varying degrees of success) new types of activities generally not related to existing specializations. Putting these new activities into action required the formation of so-called small reserves and did not require large cash expenditures or skilled labor. The leaders also enacted deeper active changes, based in attempts to enter markets in other regions through the local market. They also attempted to enter the eastern markets, but these efforts generally did not bring the expected results or ended in failure. Efforts were also made to introduce higher-quality production and improve packaging. Attempts to speed up changes in the assortment structure of products became visible, and a process of introducing new products was initiated.

The leading companies' competitive advantages were based on their ability to better adapt, which was a result of the following:

- Better economic standing;
- Faster adaptive actions (pro-active positions by management and, sometimes, workers' councils).

The turning point brought about the above changes in businesses' actions, and also had an effect on changes in macroeconomic policy priorities that mainly had to do with budgetary, fiscal, and monetary policies. In-line with the economic program, it was deemed necessary for the state to be active in two complementary areas: the further restructuring of the economy towards the transition to market relations through the development of the private sector, and the introduction of intervention tools aimed at stopping the recession through market-based measures. In budgetary policy, the concept of a controlled budget deficit was adopted, which allowed for the implementation of the IMF's requirements and for the gradual reduction of the budget-deficit-to-GDP to a level that met the Maastricht Treaty requirements.

In order to increase supply in monetary policy, a decision was made to introduce money into circulation at a faster pace than GDP growth (Założenia polityki społeczno..., 1992: 17), which in practice led to easier access to money for efficient enterprises and over the subsequent years addressing the problem of debts under the law on financial restructuring of enterprises and banks. The macroeconomic policy principles adopted in connection with the gradual development of extensive business changes imitated the country's emergence from the recession. Thus, the internal economic conditions for the development of active changes by enterprises were established. Due to the above measures, the unemployment growth rate decelerated considerably, having reached a peak pre-2001 level (16.4%). However, alongside the aforementioned trend of increasing production volumes, there were new and existing obstacles to economic growth, the most important being:

- A lack of obvious progress in the restructuring of the national economy;
- High and growing unemployment, and the related dangerous structural tendencies;
- The appearance of symptoms of tension in the trade balance;
- Difficulties, as before, with budget deficit financing;
- An increasing polarization of society's material well-being, with poverty among the unemployed and large families.

At the time, most state-owned enterprises had neither the appropriate management personnel nor the financial resources to efficiently overcome the inherited obstacles to development. The absence of efficient decisions

on the future of Poland's foreign debt deprived certain firms and the economy in general of access to foreign capital markets as a way of reducing debt. The government's efforts in support of the IMF recommendations to reduce external debt and its desire to increase foreign reserves limited the room for maneuvering in terms of macroeconomic policy. To ensure further success the government began implementing an exchange rate policy by establishing and maintaining an external balance, while restrictive fiscal, monetary, and profit policies were aimed at reducing and, eventually, weakening excessive domestic demand to bring deflation.

2.5.4. Conditions and implications of accelerated economic growth in 1994—1998

In 1994-1998 the Polish economy entered a period of high economic growth enabled by:

- The uncovering of the consequences of the active changes by market elements, which gradually gained prominence over the four preceding years;
- The resolution in 1994 of problems related to restructuring foreign debt inherited from the centrally planned economy, paving the way for a greater inflow of foreign capital;
- Favorable economic conditions in Poland's main trading partners, except for former USSR countries;
- The adoption of a 6-year comprehensive program of systemic reforms, anti-inflationary measures, and economic development called the «Strategy for Poland», which was based on supporting national demand.

The four year delay in the implementation of active changes at most companies resulted in the need to change the mentalities of managers and staff and overcome, at least for the most part, the inertia of established behavioral patterns in the management process that were inherited from the centrally planned economy. These delays were also due to objective reasons. Innovation requires the existence of a certain environment; innovation cannot yield results under uncertain circumstances.

Pro-active moves can gradually stifle passive expectations if the possibilities exist for the accumulation of financial resources that are needed to develop and grow market share on local or national markets, or to conquer new markets. In this way, companies emerged that viewed their financial shape as good or very good. The key factors in implementing the expansive criteria were profitability, preservation of financial continuity, and the ability to accumulate.

Active changes were also seen in monetary and pricing policies. These changes were seen in a departure from the practice of passing on increases in costs to the final price. Although most companies pointed out the cost nature of inflation, their price response to cost incentives was generally not automatic. Competition and room available for maneuvering that appeared as a result of growing market profitability were two factors that countered the delay of these reactions and even allowed some absorption of costs impulses. However, there still was a serious threat to companies' ability to absorb costs that were caused by price impulses. The main source here was a lack of resources for modernization programs.

However, modernization programs only began to be financed following a takeover by a strategic investor. Accordingly, a significant difference emerged in the depth and intensity of the active changes between the public and private sectors. A growing number of enterprises privatized with the participation of foreign investors began producing new product ranges each year, while manufacturers that were sold to domestic investors did so less frequently. Unfortunately, other companies released far fewer new products.

Privatization significantly contributed to an increase in the modifications of manufactured products. Although most private and state-owned enterprises reported that they successfully met the set requirements in terms of bringing improved goods to the market, innovations at state-owned firms were often superficial in nature, or even non-existent. At the same time, private companies, as a rule, guaranteed in-depth modification.

Operations that aimed to create a brand-new product, upgrade a product range, and identify a market niche were more intensive at private enterprises than at state-owned firms, although they sometimes failed. Given that private companies operated under new ownership for a maximum of three years, and sometimes for no more than 18 months, the positive effects of privatization were rather impressive. It should be also said that enterprises that were sold to a strategic investor had, as a rule, a strong production strategy, based on the broad involvement of investments and the possibility of technological transfers. The greater successes in implementing a production strategy at companies with foreign investment were directly related to the implementation of the investment commitments assumed prior to the privatization, as well as the appearance of new possibilities for technological and organizational support.

The appearance of a strategic investor was also beneficial in terms of market changes. In particular, the share of exports often increased, while

at times its own markets opened up to imports of non-competitive, low-quality products. However, entering new markets through the foreign investor came much quicker than managers at privatized enterprises had expected.

Privatization also contributed to increased professionalism and a greater scope of activities in developing and modernizing sales and supply methods. Efforts in this area had actually been made prior to the privatization, but the impact of a strategic investor was nevertheless crucial. Privatization enabled the application of qualitatively better decisions and the use of proven marketing initiatives. At enterprises with the participation of foreign investors, marketing services performed much better, especially those public relations services. These enterprises often engaged in specialized services, used modern supply techniques, and spent, on average, more on advertising than other groups of companies.

The economic policies aimed at supporting demand, which as it turned out later caused the economy to overheat, was an extremely important factor in accelerating economic growth in 1994-1998.

The «Strategy for Poland» recognized that in the following years there would be a state budget deficit and that the government would need to pay large amounts of interest on national debt. A decision was made to finance the debt servicing from state budget proceeds. They did not consider financing the budget deficit by cutting social spending and increasing fiscal restrictions since that would have affected the disposable incomes of households and firms. This approach could cause national demand growth to slow and would not guarantee a decline in inflation. It also was not possible to finance the state budget deficit through arbitrary price increases for goods and services controlled by the state and/or restrictions on salary increases since those types of initiatives would affect general demand and could threaten the targeted level of inflation. Instead, they decided to reduce national absorption to obtain a trade surplus, which would ensure the sufficient inflow of foreign currency to pay the interest due. The strategy could be achieved by controlling interest and lending rates, exchange rates, customs duties, and import finance facilities.

Loans that carry high interest rates deter investment demand, and exchange rates increases and protectionist restrictions cap imports and help increase exports. A trade surplus obtained in this manner creates the opportunity to pay the interest due and reduce debt. The side effect of these regulatory initiatives is a decrease in investment demand. That can lead to an increase in the import of inputs needed to eliminate narrow margins and improve product quality to enhance competitiveness on global markets.

The new economic strategy outlined in the previously mentioned macroeconomic policy was implemented in the framework of Poland's restructured foreign debt, which eventually helped improve economic conditions and spur adjustments by active companies. All that taken together facilitated an acceleration of economic growth (Table 2.6). That is well illustrated in Poland's annual GDP growth, which in 1994-1998 came in at 5.2-7%, and in industrial production of 12.1-9%. The dynamic growth in investment and consumer demand (respectively, 66% and 23.7% in the period in question), as well as exports, although to a much smaller extent, were the driving forces behind the high demand. In parallel with the still-high GDP growth rates, changes took place in the structure of GDP, which was becoming increasingly similar to developed market economies.

Table 2.6

DYNAMICS OF CERTAIN ECONOMIC GROWTH INDICATORS in 1994—1998

Indicators	1994	1995	1996	1997	1998
Annual average growth (%): GDP	5.2	7.0	6.1	6.9	4.8
Consumption	4.4	7.8	9.5	7.3	4.6
Investments	9.2	18.5	20.6	21.9	16.2
Industrial production	12.1	9.7	8.3	11.5	4.6
Agriculture	-9.3	10.7	0.3	0.8	0.5
Average Consumer Price Index, %	32.2	27.8	19.8	14.5	11.8
Unemployment, % of the total workforce	16.0	14.9	13.6	10.5	10.4
Public budget deficit, % of GDP	–2.7	–2.6	–2.5	–1.3	–2.7
Exports, in bn US dollars	17	22.9	24.4	27.2	30.3
Imports, in bn US dollars	17.8	24.7	32.6	35.6	42.7

Source: own estimates based on: Statistics Yearbooks GUS, 1995, Table 20 (203), p. 132; 1997, Table 1 (659), p. 473; 1998, Table 19 (164), p. 138; 1999, Table 5 (518), p. 501, Table 18 (167), p. 144, Table 5 (518), p. 501; 2001, Table 12 (349), p. 329.

The unprecedented rapid growth compared with other countries that went through the transition to a market economy resulted in a desire to maintain the same rate of growth, at least double that of EU countries. As a result, it became possible to expand the use of idle production capacities, cut unemployment by 4.9%, and increase companies' margins

and the share of profitable firms. They were also accompanied by almost a 2.5-times reduction in inflation. The dramatic economic growth was caused by the spreading out of active changes by market economic players and the state's introduction of demand growth drivers, prioritized in the following way: investments, domestic consumption, and to some extent foreign demand. However, the major factors, as before, were aggregate investment and consumer demand.

In 1995, however, a worrying tendency of economic overheating appeared, resulting in a more rapid pace of aggregate demand growth against GDP growth. According to estimates by the Market Economy Research Institute, in early 1996 the difference between these indicators reached 5% (Popyt krajowy rośnie..., 1997). This rate of GDP growth — too high when compared with the growth of national demand — was partly due to the beneficial effects of avoiding a number of implications (addressing the problem of repaying foreign debt, NATO membership, Russia's difficult socio-political situation, and the low efficiency of the transition to market relations in many other post-socialist countries, and, because of it, a less favorable investment climate than in Poland), and improved economic conditions, which were associated, primarily, with the elimination of the excess wage tax. At the same time, the poorly functioning mechanism of salary payments made it impossible to ensure a rapid increase in wages *pro rata* to the GDP growth rate, introduce investment and construction benefits, abolish the tax on imports, and implement the government's plans to cut corporate income tax, as well as maintain strict budgetary discipline.

In 1995, state budget subsidies accounted for 30% of all revenues at state-owned enterprises. Some companies and entire unprofitable industries contributed to the formation of budgetary imbalances, as they had excessive staff and the related wage policy, which *de facto* did not depend on a company's or industry's (e.g., mining, iron and steel industries) economic performance. Due to the financing of salaries at loss-making enterprises, the average salary, paradoxically, could be higher than at profitable companies. The largest source of demand in the economy became the state budget, with spending accounting for roughly half of total GDP (from 48.1% to 49.9%). It proved especially dangerously to stimulate demand through the budget deficit, especially the part financed by the central bank. It subsequently became clear that in the circumstances it was necessary to limit budget expenditures and slow the rate of wage growth, which was not related with an increase in labor productivity.

At the time, economic policy priorities were to eliminate or substantially limit the budget deficit, stop the further growth of the

current turnover deficit in GDP, rapidly and consistently privatize remaining enterprises, thus contributing to microeconomic efficiency, introduce a well thought-out trade policy that would restrain unfair competition and favor increasing competitiveness of domestic producers, as well as an industrial policy that would further promote industrial and technological innovation.

The extremely rapid economic expansion vis-à-vis the country's export possibilities gave rise to numerous tensions and obstacles inherent to the strategy for stabilization and economic growth designed for the mid-term. The most important were and still are the following:

- A rapidly growing trade deficit;
- Slow restructuring of state-owned enterprises;
- The failure to initiate a restructuring of the agricultural sector;
- High unemployment and inflationary expectations;
- Excessively high growth of real public sector wages, which are faintly related with changes in labor productivity;
- Difficulties balancing the state budget;
- Insufficient financing of education, health care, and state security, extremely high taxes compared with countries with high production;
- Better use of industrial production capacities.

Under these circumstances the government lost room to maneuver in the area of budgetary policy to eliminate short-term obstacles for development.

2.5.5. Tendencies and mechanisms of stagnation in 1998-2002

The combination of negative effects from the external financial shocks of 1997-1998 and especially the crisis in Russia, along with the government-announced economic cooling strategy, brought to light the structural weaknesses of Poland's economy and policies related to the business environment that had been implemented in the previous phase. As a result, it led to a decline in GDP growth and a transition to the next phase of economic growth. Taking into account the specifics of the sources of the GDP decline, the next phase can be described as the phase of the impacts of external shocks and changes in economic conditions.

The first more significant slowdown in economic growth following Poland's emergence following the transformational recession took place in 4Q1998. Russia's financial crisis, which began in August 1998 and led to a decline in Polish exports to that market, directly caused GDP growth to slow — the Russian crisis and the start of the decline in Polish exports and demand coincided.

The crisis in Russia and the financial shocks in other countries gave rise to a barrier for foreign demand as early as 1998. This barrier was still in place in 1999, especially during the first six months. According to GUS, the trade deficit reached 18.5 billion US dollars in 1999, and was just 0.3 billion US dollars lower compared with 1998. Decelerating economic growth for the second consecutive year contributed significantly to a deterioration of the labor market situation. Improved labor productivity in industry was also a factor in the lower national employment levels and the average level of employment in industrial production.

In 2000, the pace of economic growth was close to that of 1999. According to estimates, GDP growth in 2000 was similar to 1999 and amounted to 4.1%. In the next quarters of 2000, however, GDP growth consistently decelerated (I quarter — 5.9%; II quarter — 5.0%; III quarter — 3.1%, IV quarter — 2.4%), whereas it grew on a quarterly basis in 1999. The slowdown of GDP was related to a drop in industry's gross added value (GAV) growth in the subsequent quarters of 2000. Nevertheless, in 2000 the annual GAV growth in industry was higher than in 1999 (6.8% in 2000 vs. 3.0% in 1999).

A similar trend of decelerating growth was seen in market services and construction as well, which nevertheless grew compared with 1999. However, their growth was somewhat lower: by 0.6% in construction and by 1.9% in market services.

The slowdown in economic growth that affected the key sectors set Poland back almost five years in terms of the initiatives aimed at bringing the country's development nearer to the standards of EU countries.

In addition to the direct external factors contributing to the decline in key macroeconomic indicators, internal conditions represented a real threat to the development of Poland's economy. As seen in Table 2.7, the primary internal sources of stagnation that started in 2003 were:

- A low disposition to savings, insufficient amid the calls for development;
- Insufficient capacity for the absorption of foreign capital;
- Persistent obstacles to external trade, mostly structural in nature (technological gaps, incomplete privatization, poorly functioning laws aimed at protecting against unfair competition);
- Lack of ideas and consensus as to implementing fiscal reforms in order to address threats to sustainable economic growth;
- A large-scale and more expensive than expected program of social reforms (health care, welfare, self-government and administrative changes), which makes it impossible to cut public spending or create room to gradually cut taxes.

Table 2.7

SELECTIVE FACTORS THAT SLOWED DOWN ECONOMIC GROWTH IN POLAND (1990—2003)

Factors	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Unemployment (% of the workforce)	6.3	12.2	14.3	16.4	16.0	14.9	13.6	10.5	10.4	13.0	16.1	17.5	18.1	20.0
Money supply (% of GDP)	32.2	31.6	35.8	35.9	36.7	36.7	36.5	37.5	40.2	42.8	42.1	46.3	41.7	…
Consumer price index (XII/XII)	249.0	60.4	44.3	37.6	29.6	21.6	18.5	13.2	10.0	9.8	11.6	3.6	0.8	1.7
Average annual CPI, %	586.0	70.0	43.0	35.3	32.2	27.8	19.8	14.5	11.8	7.3	10.8	5.5	1.9	0.8
Average interest on 12-month loans as of 31 XII[a]	…	40.0	39.0	35.0	31.0	24.0	23.3	24.5	23.4	19.9	22.2	12.5—2.0	8.7—18.1	7.5—15.8
Share of savings in household incomes	…	16.3	15.0	12.5	11.8	13.3	12.9	13.2	13.3	11.2	11.2	…	…	…
FDI[b], in USD bn	0.1	0.3	1.4	2.8	4.3	6.8	14.0	20.6	30.7	38.9	49.4	56.8	60.9	…
National budget deficit (% of GDP)	3.1	–3.8	–6.0	–2.8	–2.7	–2.6	–2.5	–1.3	–2.7	–2.0	–2.2	–4.3	–5.1	–4.6

continued Table 2.7

Factors	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Foreign debt of the national budget, USD bn	49.0 48.5	48.0 48.4	47.2 47.0	42.2 47.0	43.9 39.0	40.4 40.5	38.1 36.9	40.4 33.4	42.7 34.8	43.2 31.3	31.2 29.2	29.6 24.8	28.3	…
Official gross foreign reserves, USD bn	7.8	6.5	8.1	8.8	11.3	20.4	21.7	24.4	27.4	25.5	27.5	26.5	…	…
Balance of payments, USD bn	–2.0	0.9	–0.6	2.3	5.5	–1.3	–4.3	–5.6	–6.9	–11.7	–10.0	–7.2	–6.7	4.0

Notes: a — Last issues of «Rzeczospolita» of December of selected years, *b* — FDI in 1993—1996 cover investments over US $1 mn, while in 1997—1998 total investments;
b — Estimates using data of the Population and Housing Census 2002;
c — Estimates using data of the General Agrarian Census 1996.

Source: Own estimates based on statistics of GUS; as to BIZ based on the data prepared by PAIZ in: Foreign investments in Poland, Foreign Trade Research Institute, Annual Report, Warsaw 2001, p. 15 and 106; List of Major Foreign Investors in Poland, PAIZ, December 31, 2001, Warsaw 2002, p. 5; Statistics Yearbooks GUS: 1995, Table 5 (627), p. 482, Table 17 (694), p. 534, Table 2 (624), p. 479; 1998, Table 21 (556), p. 527, Table 5 (400), p. 453; 1999, Table 21 (565), p. 559, Table 5 (498), p. 483; 2000, Table 12 (97), p. 153; 2001, Table 4 (494), p. 476, Table 4 (341), p. 325, Table 20 (562), p. 562, Table 5 (516), p. 496, Table 4 (515), p. 496, Table 7(497), p. 478, Table 6 (496), p. 477, Table 10 (500), p. 480; Abridged Statistics Yearbook GUS 2002, Table 2 (101), p. 164; Republic of Poland: Selective Factors and Statistical Appendix, IMF Country Report Hy 02/128, June 2002, p. 38; Information Bulletin NBP, 2002, № 1—2, Table 2, p. 12—13, Table 12, p. 54—55, Table 16, p. 64.

During the economic debates over the causes of the economic slowdown in Poland and necessary conditions for a return to a sustainable 5-6% GDP growth rate, it was often stated that the strategic goal of economic policy was to increase the scale of national savings (Gomułka, 2001; Orłowski, 2002). National savings, which account for roughly 20% of GDP, do not facilitate sharp economic growth in the range of 5-6 % annually. The problem of low national savings will not be resolved by an inflow of foreign savings, since they would cause an increase in the trade deficit and current turnover. With the existing structure of production and the low competitiveness of domestic production, the Polish economy is unable to sufficiently absorb foreign savings in order to maintain high GDP growth since this would lead to a stronger national currency and subsequently a decline in export margins. However, boosting national consumer demand would widen the trade deficit and the current turnover. This mechanism led to a situation in which export volumes caused nearly a 12% devaluation of the zloty in 2001, in addition to high corporate debts to foreign entities. Trade volumes nevertheless stabilized at the levels seen in 2000.

The drop in export volumes, reduced employment due to corporate restructurings initiated by the Russian crisis, and the subsequent deterioration of global market conditions and decline in aggregate demand (from 3.9% in 2000 to 0.4 % in 2001) as a result of loose fiscal policy and restrictive monetary policy, brought the investment process to a critical point. The above factors laid the groundwork for economic stagnation in 2001-2002 and directly led to a slowdown of GDP growth to 1.1% in 2001 and 1.4% in 2002.

In spite of the above-described GDP deceleration, Poland's economy staved off recession, although many industries like food, pharmaceuticals, and chemicals faced enormous difficulties in marketing products. The crisis in Russia exposed the low competitiveness of most exporters and of Poland's entire economy. Difficulties emerged in maintaining the achieved levels of monthly exports amid a significant increase in imports (3.5 — 4.5 billion US dollars, each month).

The aforementioned list of conditions: low savings (insufficient capacity for the absorption of foreign capital) and insufficient export to satisfy the needs of the economy through the introduction of the «Strategy for Poland» led to a balance of payments deficit threatened by the financial crisis. At the end of Q1 2000, it amounted to 8.3% of the GDP. The fall in its share to 4% in 2001 did not mean that the risk of the financial crisis was overcome. This was due to the weakness of Polish exports and the low profit margins of exported domestic goods compared with sales on the domestic market. The low level of competitiveness of

domestically produced exported goods in 1998, the trend of the declining market climate in the global economy, the crises in Asia and Russia, the recession in the US, serious economic hardships in Argentina, Brazil and Japan, and the major role of these countries as importers and exporters of capital and technology for the EU all together contributed to the increasing balance of payments deficit of 7-8% of the GDP. The driving forces were investment and consumer demand, which was highly saturated by imported goods, and the absence of better possibilities to limit the use of trade policy instruments due to the high budget deficit and international obligations that Poland assumed as a condition for WTO membership and its future accession to the EU. With the government finances the way there were, any substantial support of export by resources of the national budget policy was impossible.

At the same time, it should be stressed that economic stagnation ate away at the already low level of savings of all economic subjects (limited household savings to maintain existing levels of consumption, decreasing commercial profit margins, exorbitant 5% budget deficit due to inefficient government spending). The process of stagnation led to a heightened imbalance and a return to imbalanced and low economic growth with recession tendencies.

Threats to the current and mid-term strategy of economic development arising from the excessive current turnover deficit were taken into consideration in the process of drafting a policy aimed at freezing the economic climate similar to the one of 1998. The consequences of this policy turned out to be unsatisfactory, as it did not factor in the problems of decreasing demand. Attempts to reform fiscal policy could not succeed without the approval of parliament and unsuccessful projects aimed at reforming the tax system. On the backdrop of a large-scale social reform program (healthcare, social insurance for self-government and administrative measures), limiting social expenditures to make room for maneuver and the declared cut in taxes became impossible. In turn, the absence of a sufficiently restrictive fiscal policy stipulated that the main emphasis to stabilize the economic situation was made on monetary policy. However, it turned out to be too restrictive compared to the high risk of the outbreak of a financial crisis. This disadvantageous combination of a restrictive monetary policy and an inadequately restrictive fiscal policy was implemented amidst deteriorating conditions in the global economy, which triggered a wave of local financial crises in Southeast Asia, Russia, Brazil, and Argentina. The implementation of a stabilization policy to stimulate the further process of the adaptation of Polish companies necessitated the introduction of measures that would have blocked the possibility of

further development of business. The following macroeconomic processes were the outcome:

1) Deceleration of GDP growth to 4.1% in 2000 and a further drop to 1.1% in 2001 and 1.4% in 2002;

2) Increasing threat of a government financial crisis manifested in a surge in the budget deficit from 3.47% of the GDP in 1999 to 5.1% in 2002 and the lack of prospects of its reduction in the foreseeable future;

3) Rise in unemployment to more than 20% in 2003 and the absence of grounds for its reduction. As a result, there was an increase in poverty, marginalization of a considerable part of society, regional differentiation of the country and a decrease in national demand;

4) Weakening of internal demand to the levels of 2003 made for an unfavorable investment climate and deprived the government of the main driving force of sustainable economic growth amid deteriorating global market conditions;

5) Foreign debts of Polish enterprises that had accumulated until 2003 (according to the National Bank of Poland it was US $25.7 bn in H1 2000) hindered the prospects of modernization of production capacities of the better part of the economy and a revitalization of the former growth dynamics, where labor efficiency was still three times lower than in the most developed countries;

6) The dramatic plunge in the inflow of foreign direct investments (from US $8-10 bn in 1998-2000 to almost US $4 bn in 2003) made it impossible to replenish the extremely low level of national savings;

7) Very rapid deflation amidst stagnation spurred a decrease in inflation from 11.6% in July 2000 to 0.8% in late 2001, and, subsequently, in the later period inflation was even lower than the figure specified in the budget law and the inflation target set by the Monetary Policy Council (1.7% in December 2003 vs. December 2002);

8) The extremely low level of competitiveness of export due to the highly saturated domestic demand for imported goods led to a considerable predominance of import over export (US $18.5 bn in 1999). The registered fall in decline of the balance of trade of imported goods to US $10.3 bn in 2002 was mainly stipulated by market conditions and the decrease in investment demand, the low increment in other elements of the aggregate demand and changes in the exchange rate of the Polish currency versus the euro and the dollar;

9) The increasing deficit of the balance of payments from US $4.3 bn in 1997 to US $11.7 bn in 1999 was a significant factor. Its amortization was due to the increased inflow of portfolio investments due to the economy's inability to expand the volume of FDI, which exceeded US $10 bn a year before Poland became a member of the EU. The improved

balance of trade in the following years helped reduce the overall balance of payments deficit from 8.0% of the GDP in 1999 to 3.6% in 2001;

10) The low level of provision of housing and the renewed decline in housing investments in 2001 (by 22.2% in January-September 2001);

11) An increase in regional differentiation and low efficiency of agricultural production.

2.5.6. From supply-side policy to the improvement in public finance

A thorough analysis of the factors that caused the recession and overall economic growth at a level that did not foster a reduction in the gap of development allowed the new government to reorient its policy. The new economic policy was henceforth based on a supply-based and modern growth economy, seeing as demand and supply shocks closely related to globalization and the country's accession to the EU, development of human capital and a knowledge-based economy became increasingly important for the development processes in Poland.

The comprehensive economic strategy «Entrepreneurship — Development — Employment» adopted by the Council of Ministers on January 2, 2002 was aimed at:

- A gradual return to a 5% growth of the GDP by 2004;
- Professional revitalization of society and an increase in the number of people employed;
- Effective attraction of European funds for the country's development.

The intention of the developers of this strategy was to rehabilitate the financial standing of companies and foster their growth by curbing inflation or lowering the current turnover deficit. Four sub-programs formed the integral part of this strategy: «Entrepreneurship Above All», «First Job», «Infrastructure as the Key to Development», and «Restructuring of Certain Sectors of the Economy».

The implementation of this strategy rested on three pillars:

- The strategy of state financing as a cushion from interest groups and latent methods of administration in fiscal policy;
- A pro-development[52] strategy that envisaged the gradual lowering of taxes, elimination of red tape for business, launch of investment initiatives in the public sector, and changes to the public spending structure in order to gain multiple effects;
- A strategy for European integration to efficiently use the resources of the EU.

In order to achieve pro-development and stabilization effects simultaneously, the principles of an annual increment in government

spending that is 1% higher than the forecast level of inflation were adopted. In addition, taxation of legal entities was reduced to 22% in 2004 and a transparent system of VAT compensation was introduced. At the same time, in order to harmonize the pro-development initiatives with a decrease in unemployment, the «First Job» program, aimed at cutting labor costs, was launched. It included:

- Coverage of part of the 1-year insurance premium by the national budget paid by employers of school graduates that were employed for the first time (20.41% of the salary) or exemption of employers from payment of part of the premium with the exception of health insurance;
- Deferring tax and insurance payments for graduates that establish their own business;
- Introducing the subject «fundamentals and techniques for starting up a private business and self-employment» in academic programs;
- Volunteering for NGOs and the public sector supported by welfare and compensation of travel expenses to work;
- Regulated intermediation in employment aimed at activating job seekers.

An audit of state expenditures allowed for making changes to their structure in order to initiate, support and guide the developing modernization processes. Room for maneuvers concerning these expenditures clearly could not be attributed to social transfers (40% of total expenditures) and foreign debt payments. That is why the limits to such activity were set at 1% per annum of the GDP with a 0.5% level of public savings. Some savings to finance pre-development initiatives could also be derived from a reduction of debt servicing costs pro rata to GDP growth from 50% in 2002 to 10-20% in the following years.

The support of pre-development initiatives by outside sources, meaning foreign loans of US $1 bn a year, the same amount for pre-expansion and EU structural funds to the tune of approximately EUR 6.5 bn, were also taken into account. However, all sources of financing economic growth can only be viewed as a starting point. In order to speed up its dynamics and achieve a minimum level of 5% GDP growth, foreign capital was to be attracted by the economic center and certain regions. The largest institutional investors on the capital market were the open pension funds (OPF), the reserves of which could reach the level of 190-230 billion zloty by 2010. OPF investments could also be supported by resources from tier III insurance. To this end, the limits of the pension funds for investment in capital markets were revised and their portfolios were expanded.

The adopted pro-development strategy was later refined in a package of initiatives to facilitate the professional revitalization of

graduates, business development, infrastructure improvement, restructuring of selected sectors of the economy, actions to improve the competitiveness of production and services, and via the policy of earmarked placement of foreign investments. The most important initiatives to support entrepreneurship were:

- A decrease in unemployment, inter alia, by supporting small and medium enterprises;
- Tax preferences and subsidies for enterprises that create new jobs;
- Assistance provided by the state to graduates in getting their first job;
- Active export-oriented policy.

The deteriorating situation on the labor market since 1997 in terms of the decline in economic efficiency combined with demographic pressure forced the government to introduce various forms of social protection and guarantees on an increasingly broader scale. This was the reason, why disbursements from the national budget intended for development were replaced by public spending and the system of intermediation in the job search process was transformed into a supplementary public segment that contributed to the professional deactivation of the population. The government actions envisaged by the package «Entrepreneurship Above All» and labor market reform were intended to prevent these trends. This document ensured:

- The removal of bureaucratic barriers in relations between businesses and institutions of public administration through simplification of procedural rules and new legal regulations;
- Reducing appropriations for employment and increasing the elasticity of the labor market;
- Simplification of the tax system and social and recreational provisions.

The reduction of red tape in relations between business and state administration was to be executed through:

- Updating laws dealing with the code of commercial partnerships, the National Court Registry, legislation regulating economic activities and the Civil Procedure Code;
- Reduction of procedures in economic cases and elimination of the possibilities for excessive dragging out of investigations;
- Broadening of the powers of district courts in cases concerning property laws, reduction of the cancellation period, postponing the disputed matter and reduction of procedures in economic cases and elimination of the possibilities for excessive dragging out of investigations;
- Reducing the maximum fee for notary services;

- Easier conditions for obtaining licenses to manage construction works;
- Simplification of procedures required to obtain public assistance and frequency of reporting;
- Unification of the definition of entrepreneur and introduction of regulations that would more efficiently protect small and medium enterprises against unfair competition;
- Abolishing regulations that allow an administrative body to suspend business operations, eliminating the possibility to exercise control in the absence of an entrepreneur, and regulating the turnover of money and investments from abroad.

Through initiatives for improving the elasticity of the labor market and cutting labor costs, changes were proposed to the Labor Code and related laws that dealt with:

- Factoring in the specifics of small and medium enterprises in regulations aimed at addressing problems in labor relations;
- Eliminating the requirement for small enterprises to create a social insurance fund when setting up a plant;
- Changing the basis for the minimum wage;
- Introducing the possibility of departing periodically, upon the consent of the employees, from certain labor law provisions, when the employer faces the threat of bankruptcy or liquidation of his company;
- Regulating certain new forms of employment (working from home, self-employment, temporary jobs, substitution and overtime);
- Limiting the number of periodical mandatory medical examinations of employees working in difficult or harmful conditions and compulsory introduction of work schedules and benefits procedures;
- Reducing restrictions in the use of fixed-term contracts;
- Calculation of working hours and giving employees days off for job search;
- Establishing the Occupational Health and Safety Commission (OHSC), a social insurance fund at plants and procedure for disbursements from it, and calculating contributions to the State Fund for Rehabilitation of Disabled People (SFRPD).

Simplification of the tax system was to include:

- Updating the corporate income tax law and the individual income tax law to simplify settlements with financial institutions;
- Equaling rights and duties of taxpayers and tax administration;
- Broadening the use of agreed to rates and forms of taxation;
- Unifying the basis for business taxation;
- Easing the VAT burden for small enterprises;

♦ Easing the burden of tax payments for entrepreneurs and taxation of civil and legal activities;

♦ Easing customs procedures;

♦ Introducing the possibility of quarterly calculations of contributions to ZUS[22];

♦ Introducing insurance against work accidents and occupational diseases.

It should be added that this program was implemented amidst harsh criticism of a restrictive monetary policy, which contrary to the views of its opponents, had a positive effect on mid-term supply-side policy. Although they failed to use some provisions of this comprehensive program for pulling out of the recession, the projected rate of economic growth was nevertheless achieved. The sharp increase in labor productivity and low inflation created a sound basis for continuing the process of closing the gap in development. However, economic expansion was still accompanied by high unemployment rates and an increasing deficit of the balance of payments.

The sharp and one-off financial impulse at the end of 2002 and beginning of 2003 in the debt write-offs of 60,000 enterprises, including nearly 99% of private SME, turned out to be a powerful anti-recession stimulus and was the reason for the rapid overcoming of stagnation trends. Debt write-offs due to improving management and efficient adaptation of most enterprises caused a 4% growth in GDP in H2 2003 and unemployment began to fall. The powerful anti-recession impulses that also gave rise to the pro-development impulses used for the implementation of the Public Finance Improvement Program (Kołodko, 2004), which eventually fostered structural reforms. Along with the process of streamlining and consolidation of public finances, which has yet to be finalized, a dramatic cut in taxes for businesses played the most important role. Since the 4% cut in 1998-2001 turned out to be a very weak stimulus, the further reduction of this tax by 9% from 28% in 2002 to 19% in 2004 was received positively.

It can be said that the years 2004-2008 prolonged the trend of 6% GDP growth, which became possible due to:

- Financial, institutional, and investment advantages associated with EU accession;
- Improvement and pro-development processes in prior years;
- Improvement of management at enterprises;
- Support of business and stimulus to regional development by the local bodies of self-government.

[22] ZUS — Social Insurance Department

2.5.7. Deferred matters of social and economic consolidation

The phantom of the public finances crisis casting its shadow over the economy of Poland and the pressure on liberalization coming from the Washington Consensus pulled out of focus attention to the problem related to the social system that ripened in the 1990s, in particular growing inequality in terms of property and income, corruption, health care, upbringing and education, balancing work and family life, depopulation and a decent retirement. In the 21st century prior to EU accession the marginalization of social policy occurred under the influence of significant proceeds expected after EU accession. It was expected that they would go to the national budget. Besides, the first years of membership, overburdened by payments to the EU budget (around EUR 2 bn a year) and 20-25% domestic contributions to projects implemented by the Structural Funds, as well as the remote advantages from additional financing of structural programs and social consolidation made it impossible to undertake any actions in this sphere.

However, it did not mean that prior to accession nobody had addressed the challenges of social and economic consolidation. By that time it had been considered only in the context of streamlining government expenditures. Those actions were motivated not only by concern for reducing social problems, but also attempts to reduce the extremely high budget deficit and the threat of a foreign debt trap. As a reminder, in 1990 Poland inherited from the centrally planned economy a foreign debt of 77.9% of the GDP (Woźniak, 1997: 84). Besides its restructuring, which envisaged the repayment of 50% of the debts to the Paris Club (1991) and 45% to the London Club (1994), investment expansion in 1995-1998 that exceeded the possibilities of the balance of payments and the subsequent recession resurrected the threat of a foreign debt trap.

Actions to streamline government expenditures included:

- Replacing wage indexation in 1996 with wage-price indexation, its reduction in 1999 to 20%, reduction of price indexation and departure from automatic indexation of savings in 2004;
- More stringent requirements in the disability examination system introduced in 1997, which made it impossible to obtain surplus resources from the pension fund;
- Stricter criteria for providing welfare to the unemployed. As a result, in 2003 barely 15% of the unemployed received cash assistance;
- Refusal to increase expenditures in real-time for education, health care and government subsidies meant their actual reduction per beneficiary, which was due to inflation and rapidly growing appropriations in other spheres.

The result of such social policy was a significant deterioration in the quality of social development, growing destructive conflicts and social inequality, which led to increasing poverty that transformed into civilizational backwardness of certain layers of the population and regions.

Some experts accused the new governmental groups of not just lacking professional competence and neglecting issues of social consolidation, but also of abusing the borrowed liberal economic order[23] in favor of the nation's financial stability.

In fact, balancing on the verge of a foreign debt trap with the excessive inflexibility of government spending did not leave room for maneuvering in favor of social consolidation. The problem with such consolidation could emerge only after taking the path of high economic growth and EU accession. This meant for Poland the start of implementation of one of the most important policies — a consolidation policy aimed at promoting the harmonious development of the entire territory of the EU-25 through activities that allow for reducing the disproportions in the levels of regional development. These actions are expected to strengthen the social, economic and territorial unity of individual countries and the entire Commonwealth by reducing the gap in development and convergence with other regions and countries.

Based on the Community Strategic Guidelines on Cohesion relating to economic, social and territorial unity, each member state that is a beneficiary of EU funds must draft a National Strategic Reference Framework (NSRF) for 2007-2013 targeting economic growth and employment, i.e. the National Cohesion Strategy[24]. This document analyzes the socio-economic situation in the country and its regions, formulates the most important challenges to the country's development in the years to come, and defines targets to achieve cohesion in three dimensions (economic, social, and territorial) and allocation of financial resources for individual programs and implementation boundaries.

The synthetic criteria to determine the extent of the realization of the strategic goal is the rate at which the disparities in GDP per capita are in decline at the national and regional levels. Today, this figure is about 50% of the EU-25 average. Achieving the NSRF goals should raise it to 2/3 of the EU average. Maintaining this rate of actual convergence would make it possible to achieve the EU average level within one generation. The sectoral objectives of socio-economic consolidation to achieve the main objective are presented as a comparison in Table 2.8.

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[23] In fact, many specialists expressed these ideas (Sadowski, Kowalik, Golinowska, 2004).

[24] The Ministry of Regional Development prepared this paper in May 2007 and the European Commission adopted it by its decision that approves certain elements of the National Strategic Reference Framework (NSRF).

Table 2.8

PRIORITIES OF THE NATIONAL STRATEGY OF THE MINISTRY OF REGIONAL DEVELOPMENT OF POLAND

Goal	Indicator	Lisbon Strategy indicator	Indicator in the base year*	Expected indicator in the target year (2013)	Change due to influence of EU resources**	Source and periodicity of review
Strategic goal: to create conditions to improve competitiveness of the economy based on knowledge and business, facilitating employment growth and social consolidation	Annual average GDP growth (%)	×	4.9 (2004—2006)	5.2*** (2011—2013)		
				6.1 (2011—2013)		
	GDP per capita according to PPS (EU 25 = 100)	—	51.1 (2006)	65.0		
	Structure of employed by industries (I/II/III)	—	17.4/29.2/53.4	12.0/26.0/62.0		
	Indicator of employed aged 15—64 — o/k/m — employed aged over 55—64 (o/k/m)	×	52.8/46.8/58.9 27.2/19.7/35.9	60/56.5/63.5 35/28/45		
	Total energy intensity in GDP (**koe/EURO**, in fixed prices since 2000)	×	0.27	0.22	—	Main Statistics Department (GUS)
	Average investments level (%)	—	18.8 (2004—2006)	24.0	30—35 %	HERMIN
	Labor efficiency per employed (EU 25 = 100)	×	59.0	75.0	about 30 %	Eurostat
	Annual inflow of FDI (BIZ), USD bn	—	9.6****	10.0	—	GUS/BAEL
	New jobs (in thousands) o/k/m	—	0	about 3500/1750/1750	—	GUS/BAEL

* i.e. In 2005, unless otherwise specified

** Against the base year. Estimated based on HERMIN model.

*** Estimates of the Ministry of Regional Development.

**** In 2006. according to input data of NBP — USD 14.7 bn.

Table 2.8 continued

Goal	Indicator	Lisbon Strategy indicator	Indicator in the base year*	Expected indicator in the target year (2013)	Change due to influence of EU resources **	Source and periodicity of review
Goal 1: To improve the functioning of state institutions and establish mechanisms for partnership	Average time for court decisions (days)	—	about 1,000	about 200	—	The World Bank (WB), Doing Business Monitoring research and evolution NSRO
	Indicator of perceived corruption[25]	—	3.4	5.0	—	Ranking of Transparency International (www.transparencyinternational .org) Monitoring and evolution NSRO
	Quality of the adopted law	—	0.8	1.0	—	WB research Governance indicators
	Management efficiency (indicator)	—	0.58	0.9	—	Indicator ranging from –2.5 to +2.5, WB research Governance indicators
	Average time for paying cash based on decision to pay under operating programs	—	4 months	1 month	2 months	Monitoring and evolution NSRO

[25] Corruption perception index (10 — means no corruption).

Table 2.8 continued

Goal	Indicator	Lisbon Strategy indicator	Indicator in the base year*	Expected indicator in the target year (2013)	Change due to influence of EU resources **	Source and periodicity of review
Goal 2: Improve the quality of human capital and enhance social consolidation	Share (%) of population aged 15—64 by education level o/k/m secondary (including professional and lyceums) — higher	×	59.4/56.0/63.2 13.4/14.6/12.2	65/61/69 17/18/15	—	GUS/BAEL (2005 — IV quarter)
	Graduates of high schools specialized in mathematics, natural sciences, and technical studies (% of total high schools graduates) o/k/m	×	14.7/7.8/27.5 (2004/2005 academic year)	22/13/31	—	Own estimates based on GUS
	Unemployment level o/k/m	×	13.9/14.9/13.0 (2006)	10.0/12.0/9.5	25—30 %	GUS/BAEL
	Share of persons aged 25—64 that study among the total population this century k/m (%)		5.0/5.6/4.3	10/11/9	—	Eurostat
	Unemployment among persons aged 15—24 o/k/m (%)	×	36.9/38.3/35.7[26]	20/21/19	25—30 %	Eurostat
	Indicator of relative poverty threat after social transfers o/k/m (%)		21/20/21	14/13/14	—	Eurostat
	Average life expectancy women — men	—	79.4 70.8	80.9 73.9	—	GUS

[26] In 2006 according to accession estimates — overall 29.8.

Table 2.8 continued

Goal	Indicator	Lisbon Strategy indicator	Indicator in the base year*	Expected indicator in the target year (2013)	Change due to influence of EU resources **	Source and periodicity of review
Goal 3: To build up and modernize technical and social infrastructure most important for improving competitiveness	Total highways, km	—	552	1754	about 40 %	GUS
	Total number of expressways, km	—	258	2555	about 80 %	GUS
	Road safety (deaths per 100 thousand inhabitants)	—	14.3	7.4	—	Own estimates based on GUS
	Public transportation, mn passengers	—	4150	4225	—	GUS
	Length of railroads allowing a speed of 160 km/h and more	—	538	1786	about 70 %	Polish Public Railroads, Polish Railways S. A. (PKP PLK S.A.)
	Population using sewage (% of the total population) city/village	—	85.2/20.4	90/30	—	GUS
	Share of electricity from renewable sources in total consumption, %	×	2.9	7.5—8.5	80—85 %	Eurostat
	Greenhouse gases output (1988 = 100 – equivalent to CO_2)	—	68.7 (2004)	89.0	—	GUS

Table 2.8 continued

Goal	Indicator	Lisbon Strategy indicator	Indicator in the base year*	Expected indicator in the target year (2013)	Change due to influence of EU resources **	Source and periodicity of review
Goal 4: To increase competitiveness and innovations of businesses, including the industrial sector with high value added and service sector development	Total expenses for research and development (as a % of GDP) — including business sector expenses (as a % of GDP)	×	0.57 0.18	1.5 0.4	65—70 % 65—70 %	GUS
	Share of industrial enterprises which invest in innovation (as a % of total enterprises)	×	38	60		GUS
	Share of high and medium — high technology goods in the manufacturing		30.6	37.5		GUS
	Number of patents awarded [27]	×	21 (2002)	240	65—70 %	GUS
	ITC expenditures (% GDP)	×	7.4	8.5	about 80 %	Eurostat
	Accessibility of on-line e-government services (as a % of 20 key services)	x	64	80		Eurostat
	Number of broadband lines per number of the population, %[28]		3.9 (2006)	23.0	80—90 %	Eurostat
	Share of market services in the gross value added, %		49.6 (2006)	53.0		Own estimates based on GUS

[27] Patents issued by the European Patent Organization (EPO) and those issued in the USA (USPTO).
[28] Illustrates penetration of the broadband Internet irrespective of the consumer type.

Table 2.8 continued

Goal	Indicator	Lisbon Strategy indicator	Indicator in the base year*	Expected indicator in the target year (2013)	Change due to influence of EU resources**	Source and periodicity of review
Goal 5: To improve the competitiveness of the Polish regions and prevent their social marginalization	Average level of differentiation of GDP per capita by voivodship (Poland=100)[29], %	—	24 (2004)	not exceeding 25	—	Own estimates based on GUS
	Average unemployment in 3 sub-regions (NUTS III) with the highest indicators, %	—	37.0	22.0	25—30 %	GUS/BAEL
	Large urban centers[30] connected to the grid of expressways or highways	—	6[31]	18	—	Monitoring NSRO
	Annual average GDP growth per capita for 5 provinces of Eastern Poland[32]	—	8.1 (2004)	Not lower than average for the country	—	Own estimates based on GUS
	Urbanization	—	61.4	65.0	—	GUS

[29] Calculated according to the variability ratio.
[30] Large urban centers being the provincial centers, i.e. capitals of the regions (Bydgoszcz-Torun, as well as Gorzuv and Zelena Gora, treated separately).
[31] Large urban centers connected to the grid of expressways or highways: Katevatis, Lodz, Opole, Poznan, Wroclav and Gdansk.
[32] Nominal voivodships: Lublinske, Pidljaske, Sventokszyske, Varminsko-Mazurske.

Table 2.8 continued

Goal	Indicator	Lisbon Strategy indicator	Indicator in the base year*	Expected indicator in the target year (2013)	Change due to influence of EU resources **	Source and periodicity of review
Goal 6: To ensure equal opportunities for development and support to structural changes in agriculture	Unemployment in countryside, %	—	16,1/14,4/18,3[33]	13,5/11,0/14,5	25—30 %	GUS/BAEL
	Employment among those aged 15+ in countryside (%) o/k/m	—	47.0/39.1/55.1	53/44/62	—	GUS/BAEL
	Number of agricultural workers per 100 hectares of land[34]	—	15	11	—	Own estimates based on GUS
	Share of countryside households with access to Internet, %	×	19.0	70.0	about 80 %	GUS
	Persons in countryside aged 15+ (total) that continue studies, %	—	13.6 (2002)	17.0	—	GUS (general census)
	Share of children in countryside covered by pre-school education aged 3-5, %	—	17.5	30.0	—	Own estimates based on GUS

Source: National Strategic Reference Framework 2007—2013. National Consolidation Strategy, Ministry of Regional Development, Warsaw, May 2007, p. 76—78.

[33] In 2006, according to accession estimates — 13,0.
[34] For farms with land exceeding 1 hectare.

At the same time, the specific distribution of the Structural Funds and the Cohesion Fund for 2007-2013 was as follows:

- infrastructure and environment — EUR 27.9 bn (41.9 % of total resources);
- regional operating programs — EUR 16.6 bn (24.9 %);
- human capital — EUR 9.7 bn (14,6 %);
- innovation economy — EUR 8.3 bn (12,4 %);
- Eastern Poland development — EUR 2.3 bn (3.4 %);
- technical assistance — EUR 5 bn (0.8 %).

2.6. Restructuring the Economy

2.6.1. Introduction

Structural changes that take place in a market economy are evolutionary processes, largely ongoing in nature and in which economic agents provide relevant solutions. The desire of companies to maximize profits in a competitive environment encourages them to strive for the most effective use of available capital. By responding to signals from the market, mainly in the form of changes in demand, they bring to life various forms and types of employment. Besides, an integral part of the market game is the bankruptcy of unprofitable firms and the emergence of new entities giving rise to new changes in the structure of the economy, which can be analyzed from various perspectives. Innovative competition plays a special role in these structural transformations; it relies on finding a competitive advantage and additional benefits using technical and organizational innovations. It leads to the appearance of new products on the market, which then become major drivers of qualitative changes in the real structure of consumption. The technological changes lead to changes in methods and efficient growth, seen in the growth of national income and changes in demand, which is the source of further structural transformations. Therefore, market mechanisms that operate without a hitch will stimulate on-going structural transformations in the economy, which in academia is called the creative destruction. This type of functional mechanism contributes to the long-term adjustment of supply and demand and becomes the basis for substantial efficient growth and economic development.

The state is also involved in the process of structural changes in a market economy. However, the scope of its impact can differ: it may be limited to indirect actions aimed at increasing market density and removing barriers to economic activity, and it may involve direct

participation in the allocation process. Historical experience, in particular in countries where a large-scale industrial policy was conceived (e.g. Japan and Korea), shows that the state's role is complementary by nature, aimed at stimulating or correcting market mechanisms, which is in itself a major structural factor.

In a centrally planned economy the main mechanism of structurally significant changes departed from the abovementioned design since its components were as different as the benefits of certain structural factors. Allocation decisions relied on political criteria that often do not correspond to the principles of economic rationality. In addition, the social objective was different: the key idea was equal access to property, implemented through the policy of complete employment (Woźniak, 1993: 206). The primacy of that political and social goal required the replacement of market incentives with decisions by the central government in the area of economic activities (including regarding the range of products to be manufactured) and the means of their implementation (determining the technologies to be used, allocating production tasks among certain subjects). The resulting structures of socialist economies evolved differently from the direction taken by market economies, primarily in the excessive development of industry, especially of heavy industry for account of the consumer sector and a focus on developing production means instead of consumer goods.

The transformation of the economic system launched in 1989, which created the conditions for the institutional implementation of market mechanisms, played a leading role in the process of structural change. The introduction to the market of an allocation mechanism of savings in the form of «shock therapy» launched a dynamic process of bringing the economy to market equilibrium, disclosing the exchange deformations of the economy, and starting the process of transforming the production structure.

2.6.2. Factors of structural changes during a system transformation

Structural changes in Poland's economy took place in a very different way from that of developed market economies. It should be noted that a normally functioning market and one that is efficient in its allocation role, including the structural one, requires it to meet several conditions. In addition to the liberalization of prices and freedom of economic activity, private ownership and competition are of paramount importance (Kaczmarek and others, 2005: 102). «Creative destruction» also requires the formation of business positions in a society, which implies the need for a fundamental shift in the way of thinking that had prevailed under the system of order-distribution. However, the process of meeting these pre-

conditions is a long one. Therefore, intense and rapid quantitative economic changes appear during the initial stage of transformation, with the prevailing negative adaptations (cleaning so-called junk products from the market) so as in the subsequent years to take the form of evolutionary processes, which is the integral element of capitalist economies.

Trends in structural changes in Poland's economy after 1989 (i.e. the impact of changes in the international environment, strengthened by the liberalization of trade relations with foreign countries) played a significant role in shaping trajectories. The decline in production and the economic crisis affecting the Eastern bloc countries, which for Poland meant the loss of traditional markets (Lipowski, 1994: 80), was the first step that prompted changes in the structure of production and foreign trade turnover. That was a sign of negative structural adaptations of products, which eventually led to restrictions in many sectors. At the same time, the liberalization of international trade relations also became a driving factor in the push towards active structural adaptations. Afterwards, an opportunity appeared to dramatically increase exports in convertible currencies, which became possible due to the upgrade in the range of products and an improvement in the quality of exported goods. Opening the market for imported goods drove changes in the structure of the economy; it brought greater competition from players entering the national market. On the one hand, that was a factor that mobilized Polish producers to improve their competitiveness, while on the other it served to push many businesses out of the market that were unable to overcome competition from foreign producers. The impact of international trade on the structural changes was also seen in the free access of national entities to imported monetary assets, which are the carriers of technological progress. Thus, the intensification of trade relations opened an important channel for the transfer of technology, which played a key role in modernizing Poland's economy.

The liberalization of cash flows, especially in opening up the economy to the influx of foreign direct investment (FDI), was of great importance for the structural changes that took place in Poland. Poland's low per-capita GDP at the time of its economic transformation, as well as its low level of household income, which continued to decline as a result of the transformational regress, clearly showed the economy's weak ability to accumulate capital. This was a significant barrier for the restructuring and modernization processes, whose implementation required considerable financial investment. At the same time, the access to foreign capital would have meant greater opportunities for operations regardless of the level and size of the investments, as well as for savings and economic growth. Foreign direct investments also played a special

role since they provided a favorable combination of financial resources with the dissemination of technical knowledge and modern methods of organization and management. Although the expectation that the presence of foreign investors would improve the state affairs only materialized to a certain extent, it is nevertheless hard to deny the significant role they played in the structural changes during the transition period.

The process of EU integration was also a factor stimulating the convergence of economic structures in Poland towards the standards of developed countries. The integration increased openness in the Polish economy, in terms of the shares of exports and imports in the national income, and reinforced the above factors that stimulated structural change. Joining the EU in 2004 and the further strengthening of cooperation in trade and the movement of funds generated new dynamic impulses, such as the possibility to use structural funds, open the European labor market to Polish citizens, and accelerate the restructuring process.

In analyzing factors that led to structural changes in Poland's economy during the period of transformation we must mention the role of the state as the creator of the systemic transformation, particularly in shaping the institutional framework of the market economy and carrying out privatizations, which essentially became the main mechanism of influencing business structures. In addition, the state owned, although to an increasingly lesser extent due to the privatization progress, part of the country's means of production, enabling it to manage certain economic processes at the microeconomic level. The scope of the state's direct structural policy after 1989 was small. It partly resulted from subjective reasons, because the authors of the transformation program decided that state interventionism, including in industrial policy, should be kept to a minimum. This was mainly due to insufficient financial resources (especially at the start of the transformation amid the regression and huge levels of foreign debt).

2.6.3. Evolution of the structure of economic agents in Poland in 1989—2007

One of the most important features that showcases an economy's level of development is the structure of an entity that is of paramount importance for the efficiency of an economy and its capacity for sustainable growth. The experience of developed countries suggests that the optimal structure of such an entity is marked by the dominant participation of the private sector limited by the area of public sector activity (mainly aimed at creating public property), de-concentration of business activities (the development of small and medium business), differentiation of available legal and organizational forms of business, as well as the availability of

financial institutions (banks, stock exchanges, and investment funds), which improve the flow of processes in the real sector of the economy.

By the time of the transformations in 1989 in Poland the structure of economic agents differed significantly from the standard in market economies, because it did not meet any of the criteria. This was mainly seen in the public sector's dominant share of GDP creation, as well as the concentration of production forces at large state-owned enterprises (7.1% of those produced about 44% of all industrial products, providing jobs to about half of employed individuals) (Bałtowski, 2002: 187), while the small and medium enterprise (SME) sector remained underdeveloped.

Furthermore, activities that in developed countries usually belong to small private companies (retail, food), in Poland belonged to highly concentrated and inefficient cooperatives (the so-called «socialized economy») (Bałtowski, Miszewski, 2006: 226).

Undoubtedly, the most important process, which included a set of transformations of the subjective structure of the Polish economy, was a radical change in the structure of ownership. The right to property disposal coupled with the responsibility for its loss is a major factor that stimulated economic agents to act rationally and strengthened the activity towards its augmenting. In addition, it prompted entrepreneurs to adequately assess risks related to economic activities, especially in the investment processes that were crucial for the evolution of the economic structure in various areas: technical modernization, changes in the structure of product ranges, labor market reforms, etc. (Bałtowski, 2002; Woźniak, 1995).

The privatization of the Polish economy starting from the second half of 1990 was gradual, although its pace varied and was characterized by a continuously shrinking share of the public sector in national income, as well as the decline of other macroeconomic indicators. This process, whose flow was described in section 2.4, is still not completed. With the public sector's share of GDP at around 20%, Poland remains far from the developed country average; in most Western European economies its share does not exceed 10%, and the share is even lower in non-European countries (Błaszczyk, 2007).

In Poland in 2006 only 913 state-owned enterprises existed. Their number decreased by 89% compared with 1991. Besides, 601 entities were totally state-owned ones (GUS, 2007b, p. 712). The share of state-owned enterprises in the total number of companies operating on the market was small, but most of these were many times larger than the average, which was manifested by the extremely high participation of these entities in the assets, production and employment. The continued operation of expanded state ownership, on the one hand, generates significant funds for the economy, while on the other reduces efficiency. Most entities under state control are

marked by significantly lower labor productivity than private sector firms that cannot rely on exemptions and subsidies. Instead, state enterprises received extensive state assistance (estimated at more than 3% of GDP annually), which was nevertheless unused for development; for example, investments per employee in the private sector were about two times higher. These expenditures, representing a serious weight on the state budget, limit the possibilities to support the development of the financial sector. Therefore, satisfaction with the status quo became a barrier to further progress in the restructuring and modernization of the economy.

Changes in the system of ownership in the economy and the introduction of freedom of economic activity in the first years of the transformation resulted in a dynamic increase in the number of companies operating on the market. The unchecked expansion of the SME sector was the most illustrative example of the development of entrepreneurship in the early '90s. Their importance for the functioning and development of modern economies is undeniable, and even greater in the process of transformation that occurred in Poland after 1989. The thesis about the SME sector's key role in structural change is based on the following factors (Butska, 2004; Woźniak, 2006):

1. The SME sector is flexible and able to interact with external factors. This is based on the relative ease with which changes come about in the profile of activities and the broad rotation of enterprises within the sector. This characteristic was particularly important at the beginning of the transformation, when SMEs (partially) filled the gap in demand, consumption, and product ranges.

2. The SME sector is one of the best at creating employment, which allows to organize the workforce, from which the large restructured state-owned enterprises refused.

3. The sector plays a significant role in the creation and spread of innovation. However, due to financial and organizational reasons it cannot compete with international corporations in R&D, but it accounts for many developments in so-called grassroots technologies (a popular practice in developed countries where a company is established based on its creator's innovative ideas). Therefore, SMEs in the field of technical progress are complimentary to large firms.

Given the realities of this sector's formation after 1989 in Poland, it should be noted that the time was ripe to release the country's entrepreneurial potential, which had previously been suppressed. That led to the development of awareness and the so-called economic culture, which is a mandatory condition for the accurate functioning of the market system.

Unfortunately, the expansion of the SME sector in Poland did not result in structural changes in other areas to the extent expected based on

theoretical assumptions. The basic reasons for those developments were the limitations for this area of business in the choice of funding sources. Problems with attracting capital were partly explained by the very structure of SMEs, which were dispersed — in Poland, micro-enterprises held a larger share of SMEs than in the EU, while mid-sized firms held a 50% smaller share than in Commonwealth countries (NBP, 2004: 149). Most entities in this group are small domestic companies that operate on the basis of minimum cash reserves and have a low ability to accumulate capital. In addition, about 80% of them do not use bank loans. This weakness of the SME sector is aggravated by scarce legal and institutional solutions, particularly in attracting foreign capital, as well as virtual execution (small entities become the first victims of payment congestion). This is caused by those entities' significant predisposition to investments, which are much lower in per-employee terms than in large companies. In these circumstances, the fact that the expansion of SMEs concerns only certain activities (primarily trade and services) that are not part of advanced sectors is not of great importance. At the same time, this sector's participation in industrial processing is insufficient, which is one of the reasons for differences between the assortment structure of production and existing demand, which causes a negative current account balance with foreign countries.

The processes of privatization and private sector expansion were constantly accompanied by the transformation of legal and organizational forms of economic activity. The liberalization of rules influencing the formation and operation of enterprises allowed the practical application of the rules of the Commercial Code of 1934[35], which in turn opened the path for the formation of entities in-line with Western principles. It implied the possibility for an entity to adjust its structure to the new types and scopes of activities in the optimal way.

The expansion of activities in the form of financial companies (limited liability company, joint-stock company) played a special role in transforming Poland's economic system. The legal regulations governing their operations were among the main elements of the institutional system of the market economy. The financial security of a company played an important role in the allocation process of an economy's accumulated savings, thus enabling the accumulation of capital for doing business, and thereby improving the process of transforming savings into investments. The development of these processes in an economy undergoing a transformation depends on progress in the formation and development of the money market with the stock exchange at its head.

[35] Presently, certain legal forms of activities are regulated by the Law of September 15, 2000: Code of Trade Partnerships

Table 2.9

NUMBER OF ENTITIES OPERATING
IN THE POLISH NATIONAL ECONOMY BY LEGAL STATUS in 1989—2005

Year / Entities	1989	1991	1994	1997	2001	2005	2007
Economic agents, including:	No data	1,572,078	2,120,382	2,596,890	3,325,540	3,615,621	3,685,608
State-owned companies	7,337	8,591	5,519	3,369	2,054	1,029	572
Private firms	…	…	1,718,381	2,090,013	2,600,127	2,776,459	2,787,650
Trading partnerships	…	53,771	95,017	126,465	177,085	230,588	258,299
Limited liabilities companies	…	51,148	90,146	119,053	161,049	195,029	216,887
Joint-stock companies	…	2,20	3,97	6,378	8,486	8,607	8853
Companies with the participation of foreign capital	…	4,796	19,737	32,070	45,765	54 336	61,546
WSE-listed companies	…	9	44	143	230	255	351

Source: Statistics Yearbook RP, GUS, issues from 1995 to 2008.

In parallel with the expansion of private sector entities operating in the real sector of the economy, the development of the financial sector began, which led to an increase in the number of banks, insurance companies, leasing companies, and others. The growing interest in the Warsaw Stock Exchange (WSE) as a place to raise capital deserves special mention. Only five companies were quoted during the inaugural WSE session in April 1991, with the number growing to 351 by 2006. Currently, the WSE is a regional leader in terms of the number of quoted companies and market capitalization. At the same time, the distance separating Poland from developed countries, is constantly reducing: on the eve of EU accession (late 2003) the WSE's capitalization-to-GDP was 17.9% (at the time, the overall capitalization of EU stock exchanges exceeded 75% of the bloc's aggregate GDP), while by the end of 2007 its capitalization reached 95% of GDP (*Each time higher...*, 2006, the Warsaw Stock Exchange..., 2006; www.gpw.com.pl).

The changes in the structure of the Polish economy during the transformation resulted in dynamic growth, primarily of companies with the participation of foreign capital. The large-scale inflow of FDI to Poland began in 1991 after the adoption of the law on companies with foreign ownership (06/14/1991) and the introduction of the principle of freedom to establish companies with the participation of foreign capital[36] (with certain exceptions). In 1991-2007, the number of companies with foreign capital grew 12 times and FDI-related commitments at the end of 2007 exceeded EUR 119 billion (NBP, 2007, p. 12). While satisfying the Polish economy's cash needs during the transformation, it also stimulated its economic development.

2.6.4. Transformation of the sector structure of national income and the assortment structure of products

On the eve of the constitutional changes in 1989, the assortment and sector structure of the Polish economy had many features typical of socialist countries, and therefore significantly different from the standards of advanced capitalist states. In terms of economic criteria, those differences should be defined as deformations of the economic structure, based primarily on:

♦ Inadequate structure of GDP formation (in 1985-1989, Polish industry produced about 50% of GDP, the share of agriculture in total

[36] Proposals to open the Polish market to foreign investors appeared in Poland`s legislation in the second half of the `70s, but they stirred up little interest given the administrative barriers (Freitag-Mika, 2007).

output and employment was too high, while the development of service industries, especially of finance and business, was low;

♦ Hypertrophy of the country's production potential, employment structure, and prevailing production of raw materials, especially low-grade: mining, iron and steel, and military industries;

♦ Non-compliance of the supply structure with the structure of consumer demand as well as with the requirements of international competition (the product surplus amounted to almost 40% of all industrial products with a deficit of key consumption items);

♦ Technological backwardness and low labor efficiency that showed itself in products' high capital and energy intensity, low quality goods, and degradation of the environment.

The replacement of the economic system, predicated upon the introduction of the mechanisms of supply and demand and the use of cost estimates, encouraged by the economic agents, resulted in the need to adapt to consumer needs. Thus began the process of quantitative transformations, which served to level out the differences between supply from companies and the structure of demand. One of the features of this process was the transformation of the generic structure, marked by change in individual sectors' shares (agriculture, industry, services) in the formation of national income, as well as a change in some assets' share in industrial production. Generally, industry's share of the structure of annual national income began to decline, while services began to gain a greater share. During the initial phase of the transformation (1989-1992), structural changes took place mainly through a substantial reduction in industrial output caused not by a temporary decrease in demand, but through a price mechanism that rejected products not competitive by price parameters. The above tendency of changes was preserved with the emergence of the «transformational regression» in the second half of 1992 (although their rates varied) in both production and non-production areas. In the reviewed period, the dynamics of production varied, although only in certain sectors of the economy, and because of it the process of structural transformations continued based on a steady decline in the share of agriculture and industry in national income, as well as a significant surge in the share of the services sector, from less than 50% in 1992 to 63% in 2007 (Figure 2.3).

Traditionally, the share of the service sector in the economy is determined by the level of its development, so the previously mentioned structure implies that the Polish economy was nearing the developed market economies, although there is a contradictory distance that separates Poland from the richest countries, a fact illustrated in Figure 2.4. Given the specifics of the changes that had

been taking place, one should be rather conservative in estimating the magnitude of structural changes in Poland based on the above sector changes. One should also bear in mind that the provision of services, which is rather developed in post-industrial nations, proceeds from the material sphere of the economy. Qualitative changes in industry, mainly in technological and organizational progress, lead to growth in productivity in industry, and they simultaneously boost national income and changes in the structure of demand. Therefore, the synchronous changes in supply (weakening demand for the workforce in industry) and demand (stronger demand for services) that take place in the economy are an expression of the general socio-economic development. In Poland, this process took place in a different way than the above-mentioned. Structural changes in this area were caused by industry's limited participation in the formation of national income and employment as a result of transformational changes and forwarding the products to the market's actual needs. At the same time, there was no process of evolutionary and innovative changes.

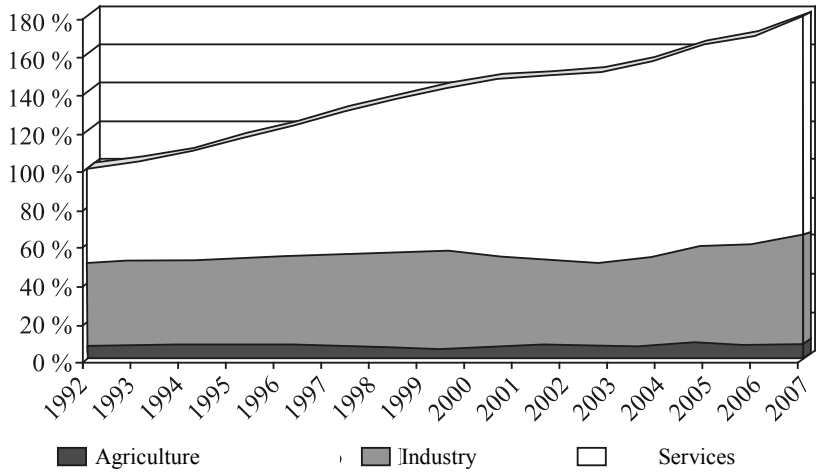

Figure 2.3.. Dynamics and Structure of Value Added in Poland (constant prices) in 1992-2007

Source: Statistics Yearbook RP, GUS, issues from 1993 to 2008.

Alongside the sector changes, profound transformations in industry took place that primarily changed the structure of manufactured products. During the first years of the transformation, the main structural factor (as

previously mentioned) was the «purging» of unnecessary products. Prevailing negative circumstances also existed that were related to a decline in production in many industries and certain enterprises' inability to produce goods. Businesses with limited investment opportunities mainly reacted to the crisis by shrinking operations, closing unprofitable units, and streamlining employment. The slowdown of business activity was significant as well, which mainly affected industries undergoing decay. At the same time, the side effects of the crisis included reduced output in sectors crucial for development (e.g., the electrical industry). In such a volatile domestic and external environment, changes in the structure of product ranges occurred in different directions, and the positive tendencies (e.g., a reduction in iron and steel output) took place alongside negative ones (e.g., a temporary surge in the share of mining output in the structure of industry). In light of that, it is difficult to identify a clear tendency of economic modernization in the structural changes of 1989—1992.

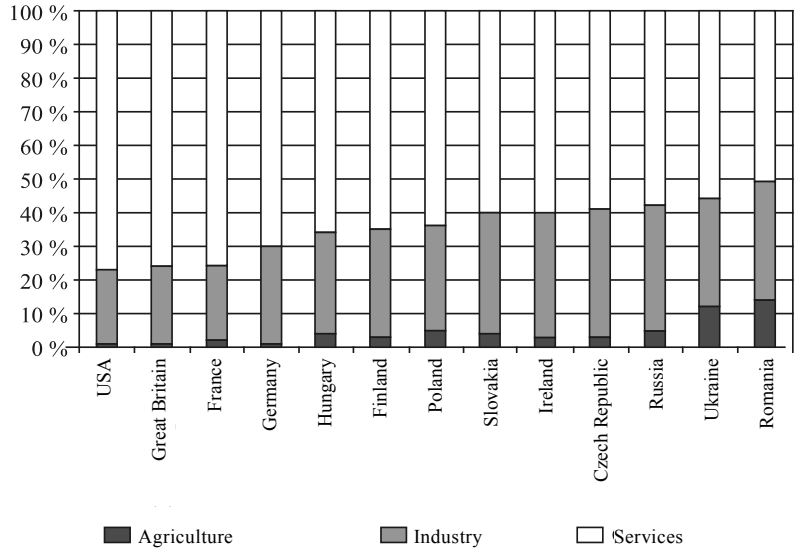

Figure 2.4. Selected Sectors' Shares in the Creation of Added Value in Poland and Selected Countries in 2005

Source: own estimates based on www.unece.org/stats.

From 1992, in most branches of the manufacturing sector the cost of goods sold started to grow again, as seen in Table 2.10. Thus, the active

changes began to play a key role in the process of structural changes, in particular those related to the process of privatization, the improvement of economic entities' finances, the macroeconomic stabilization, the development of the financial system, and foreign investments.

From 1992 to 2005 the mining industry's share in the total structure of industrial output declined. The industry's sales fell the sharpest among all other industries, declining 70% as of 2006 compared to 1990.

Low growth in the processing industry caused the shares of the iron and steel, coke, oil refining, and textile and clothing industries to decline. In contrast, industries producing rubber and plastic goods, metal products, automobiles, computers, equipment for radio and television, and office equipment showed strong growth.

Changes in the sales structure as of 2005 compared to 1992 were considered significant because the general trend implied that Polish industry was modernizing, but the rates of growth were not satisfactory. If you add the unquestionable improvement in the organization and management of production and the positive effect of changes on the environment (Matsiak, 2006), then one would have a largely positive image of the restructuring efforts.

Unfortunately, the above arguments are insufficient to positively evaluate the entire set of structural changes in Poland's economy. It should be emphasized that similar trends emerged in most countries of the world as well, a direct result of permanent technological progress. Therefore, economic modernization is like chasing a moving target, and its effects should be assessed only through a comparison with the achievements of others. The priority in the economic strategy of not just developed countries, but also of those who seek effective management and want to make up for lost time, may become the development of high-tech industries, particularly in the area of production, which will ensure the high competitiveness of the economy (Turowski, 2006). Table 2.11 provides an analysis of the structure of industry in Poland in various fields of high technology. It also contains data showing that despite positive trends in certain areas, there is no general trend towards the increase in production of goods highly «saturated» with knowledge. Over the last decades this structure has changed slightly, mainly in a decrease of the share of goods requiring a low level of technological development, which are called medium-low technologies. When describing the process of the restructuring of industry in Poland, it must be said that there are some signs of technological modernization and upgrading production facilities, but this process was limited to improving quality and productivity, without a significant development of new industries (Table 2.11).

Table 2.10

GROWTH (IN REAL TERMS) AND CHANGES IN THE STRUCTURE OF THE COST OF INDUSTRIAL GOODS SOLD (CURRENT PRICES) IN POLAND in 1990—2007

Industry	Change in structure								Dynamics
	1990	1992	1995	1997	2000	2002	2004	2007	1990—2007
Industrial products sold, including:	100	100	100	100	100	100	100	100	2.8
Mining	7.9	9.6	7.6	7.3	5.5	5	4.9	4.5	0.7
Manufacturing	84.2	79.2	82.8	83.5	84.3	83.2	85.0	86.0	3.3
— Consumer goods and beverages	17.5	20.6	20.2	19.8	18.2	19.9	16.7	16.0	2.5
— Tobacco products	1.1	1.6	1.7	0.9	0.8	0.6	0.5	0.5	0.9
— Textile products	3.7	2.9	2.5	2.3	1.8	1.7	1.6	1.3	1.6
— Fur garments	2.8	3	2.5	2.4	1.9	1.9	1.4	1.0	1.4
— Leather and leather products	1.6	1.3	1	1	0.7	0.7	0.5	0.4	1.0
— Wood, wood products, straw, and osier bed	2.1	2.2	2.7	2.8	3.2	3.1	3.1	3.0	3.9
— Pulp and paper	1.4	1.3	2.1	1.9	2.1	2.3	2.1	2.0	4.8
— Publishing, printing, reproduction of recorded media	1.4	2	2.5	2.8	3.4	3.7	3.0	2.8	4.7
— Coke and petroleum products	5.2	6.4	5.3	3.9	5.3	4	5.0	4.9	1.0
— Chemical products	6.5	5.7	6.5	6.3	5.7	5.9	6.0	5.6	2.3
— Rubber and artificial resin products	2	2.4	3.1	3.4	3.8	4.4	4.7	5.1	9.9

Table 2.10 continued

Industry	Change in structure								Dynamics
	1990	1992	1995	1997	2000	2002	2004	2007	1990—2007
— Non-metallic products	3.7	3.5	3.6	3.9	4.6	4.6	4.1	4.7	3.5
— Metals	10.3	5.9	6.3	5.9	4.8	3.5	4.8	4.8	1.3
— Metal products	3.4	3.6	3.7	4.1	4.8	5.3	5.9	6.8	8.9
— Machinery and equipment	7.8	5	5.4	5.5	4.6	4.3	4.6	5.6	3.0
— Office equipment and computers	0.3	0.1	0.2	0.3	0.3	0.3	0.2	0.2	9.1
— Machinery and electrical equipment	2.7	2.2	2.4	2.6	2.9	2.8	3.1	3.4	5.0
— Radio-, television- and telecommunication devices	1.6	1.1	1.3	1.6	1.9	2.1	2.0	2.1	11.8
— Medical instruments, precision and optical devices	0.8	0.7	0.9	1	1.0	1	0.9	1.0	4.9
— Road transport vehicles, trailers and semi-trailers	3	2.6	3.4	5.2	6.3	5.2	8.6	9.0	10.2
— Other transport equipment	2.7	2.1	2.2	2.1	2.2	1.8	1.7	1.6	1.9
— Furniture, production waste	2.2	2.5	3	3.5	3.7	3.7	4.1	3.7	5.6
— Waste recycling	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.5	2.2
Production and supply of electricity, gas, and water	7.9	11.2	9.6	9.2	10.1	11.8	10.1	9.5	1.2

Source: Statistics Yearbook RP, GUS, issues from 1993 to 2006.

Table 2.11

SHARE OF TECHNOLOGICAL GOODS IN INDUSTRIAL GOODS SOLD AND EXPORTS AND IMPORTS IN POLAND in 1995—2007

	1995	1998	1999	2000	2001	2002	2003	2004	2005	2007
Share in sales of industrial products:	100	100	100	100	100	100	100	100	100	100
— High technologies	3.3	3.9	4	5.6	4.3	4.8	4.5	4.5	4.5	4.7
— Medium-high technologies	24.4	25.2	27.5	34	22.6	21.5	23.6	25.6	26.1	26.8
— Medium-low technologies	13.8	14.5	19	21.3	15.8	17.3	17.7	31.3	32.1	32.7
— Low technologies	58.5	56.3	49.5	39.1	57.3	56.4	54.3	38.6	37.3	35.8
Share of high-tech goods in imports	9	9.8	12	12.3	11.4	10.1	9.5	9.2	10.3	10.8
Share of high-tech goods in exports	2.3	2.4	3.1	2.9	2.7	2.2	2.6	2.3	3.2	4.2

Source: Science and Technology in 2002, GUS, Warsaw, 2004; Science and Technology in 2005, GUS, Warsaw, 2006; Science and Technology in 2006, GUS, Warsaw, 2007.

The outdated assortment structure not only results in the low attractiveness of Polish industrial products abroad, but it also fails to satisfy domestic demand for high-tech goods. Therefore, this group of products will continuously be the reason for the negative balance in current foreign commerce. For comparison: in countries with the highest technological potential, high-tech products account for over 20% of exports, whereas they accounted for just 16.7% in the EU in 2006 (GUS, 2007).

The economy's excessive import-oriented growth (in 2004 the value of imports exceeded PLN 325 billion, which accounts for almost 35% of the internal demand) due to the low competitiveness of Polish industry led to the partial failure of the economic transformation. Over the past several years, there was a positive trend in its exports; however, it was insufficient to offset imports, and the negative balance in current settlements with foreign countries reached PLN 53.5 billion in 2004. The economy also suffered from the increasing weight of foreign debt. This meant that despite the significant changes that took place over the past decade, the structure of the Polish economy continues to show its inability to adjust to demand. It also leads to serious consequences for the labor market.

2.6.5. Innovations and the diffusion of technology in modernizing the economy

On the eve of social and economic changes in 1989, the Polish economy was marked by significant technological backwardness compared with developed countries. This fact was supported by low productivity, high energy and material consumption of industrial products, the low quality of goods, and environmental pollution. The obsolete structure of product ranges created problems for Polish entities wishing to enter western markets. However, after the collapse of the Council for Mutual Economic Assistance and the USSR, the decline of exports to eastern markets exacerbated this problem. Moreover, Polish companies were more frequently losing the battle against foreign competitors on the domestic market, which, as a result of the liberalization of trade relations, was saturated with imported goods.

Under those conditions, it became clear that modernizing the production process to improve labor productivity, update product ranges, and thus to increase industry's competitive potential should be one of the major objectives of the economic restructuring. The task was not easy because the economy was simply trying to survive, while the possibilities of the national research and development system were extremely limited.

The R&D sector's weakness was caused not only by under-funding, but also by inadequate institutional decisions in the existing competitive environment and subjective constraints (it was necessary to make the personnel of the research units economically feasible and commercialize the research deliverables). The above difficulties were aggravated by the low investment ability of businesses and the state's limited capacity to maintain investment processes since it was weighed down by foreign debt.

In those circumstances, the few opportunities to overcome the technological backwardness could have been found in the international transfer of technology. This reasoning is based in theory, as it relies on the experience of many countries. The assumptions about the possibility to compensate the difference in technical levels between countries by transferring the technology stem from the fact that the cost of acquiring a technology are lower than the innovation cost, which are based on own research and development (Truskolaski, 2004). The price requested by entities that own a technology decreases with time. Thus, one can assume that imported technical knowledge probably became obsolete faster than the catch-up process; the rate of convergence will be inversely proportional to the extent of technological education. In addition, using someone else's solutions allows one to avoid risks related to conducting the research on one's own, since only proven technologies are usually transferred. This has an impact not just on the financial resources, but also on the pace of the implementation of progress, which is of great importance in times when it is necessary to close the developmental gap.

Less developed countries using the technology transfer method in catching up with nations from the first echelon face numerous restrictions. For example, expenses related to the adaptation of the imported solutions are elements of the costs of the technology transfer, which include compensation to the owner. The low ability to absorb, and therefore, the considerable funding required to implement the technology transferred, can significantly slow the process of technological «pursuit.» However, contrary to the above, in most technologically backward countries the scope of the technology transfer is small. This transfer produces the best effects in medium-developed countries that can try to adapt the knowledge received (Gomułka, 1998, p. 170). Therefore, the technology transfer should be not seen as an instrument that guarantees the automatic start of the technological convergence. It simply holds a powerful potential whose implementation depends on compliance with a number of conditions.

It should be noted that in Poland in the early '90s the conditions for the efficient import of technical knowledge were favorable. On the one

hand, the relative technological backwardness meant that the reserve of technologies, available from foreign entities for relatively easy implementation, was quite large. On the other hand, although poorly developed, the research sector and the human capital resources did exist, and they determined the economy's absorption potential. The consistent liberalization of international trade and cash flows opened the channels for the transfer of technologies, of which the most significant in Polish terms were the import of funds and foreign direct investments.

Econometric research undertaken in Poland that covered 1992-2003 clearly showed that the exchange channels of technical knowledge play a key role in the modernization of the economy, which is measured by the overall efficiency of production factors. It can be asserted that Poland's technological progress almost entirely relied on the implementation of imported technological solutions, since the effect of public R&D spending on productivity growth in many models had insignificant statistical results (Michałek and others, 2003).

Despite the accumulated positive influence of the technological transfer on the economy, prerequisites existed that disallowed the use of all potential opportunities in this process. This stemmed primarily from the fact that the diffusion of knowledge contained in the imported investment product had a dominant importance. It was the easiest form of transfer to implement. Its weak point, however, was the considerable limitation by the import of second-generation technologies. This means that in a country where the technological level is advancing (i.e. in an import economy), technological education against the so-called technological milestone not only remains unchanged, but may even develop further.

Expectations about FDI as a source of technological innovation failed as well. Theoretically, this method of disseminating knowledge is one of the most effective (Bolonek, Firszt, 2007). In the case of the Polish economy, the advantages of FDI as a channel for the transfer of technologies were not enjoyed in full and were offset by negative events. The main problem was still that FDI was coming into traditional sectors; therefore, their influence on technological progress was limited and similar to the impact of imports. At the same time, the common practice was to split companies' production activities and transfer processes that were less technologically intensive and mostly assembly-based to Poland (as well as to other post-socialist countries). Attracting investors to the sector of production that still operates on the Polish market also meant the partial defeat of national producers, who had problems with foreign competition. In addition, there was no convergence between manufacturers with foreign capital and national entities, which, on the

one hand, showed that FDI failed to «penetrate» the sphere of knowledge, and on the other showed the low ability of Polish companies to attract and creatively use the technical knowledge obtained.

This type of development of the technological dissemination process resulted in the progressive economic modernization raising the technological level of traditional sectors, but not influencing the growth of productivity and improving product quality, as well as failing to seriously and positively change the economic structure towards the expansion of *high-tech* sectors. That situation resulted in the economy's permanently low competitiveness and a negative impact on the labor market, including the elimination of jobs in traditional industries (due to increasing productivity), with a low number of jobs in new sectors, which drove growth in unemployment.

The above problems emerged because the transfer process was passive by nature, and the efforts made by domestic entities to intensify knowledge and its use were insignificant. In order to change the situation, efforts were made to develop research and launch initiatives aimed at increasing the economy's adaptive ability in implementing the latest technologies and their creative use. Meanwhile, subsequent government policy marginalized the R&D sector by consistently reducing state budget expenditures for such projects. No appropriate actions were taken to reorganize the R&D sphere, reinforce its connection with industry, and increase the private sector's participation in financing research.

Hopes to improve the situation should be associated with Poland's EU accession. However, there currently are insufficient data to support the thesis about the integration's positive impact on technological changes in the Polish economy[37]. However, the effects of Poland's EU accession can already be seen now, especially in increasing trade turnover, growth in FDI inflows, the establishment of cooperative relations between domestic and foreign entities, and finally in the increased mobility of its workforce. All this proves that the channel for the transfer of knowledge is constantly expanding, which therefore improves the opportunities to use the positive external effects of this process. Signs that foreign investors in Poland are changing their approach have also appeared: more frequently they set up high-technology production in the country and transfer research centers to Poland. This trend and the expansion of modern sectors cannot take place without further improvements by Poland of its own research and development activities, as well as without new efforts aimed at enhancing the quality of human potential.

[37] This is due to delays in the publication of statistical data, primarily because these types of consequences are disclosed with at least several years of delay.

2.6.6. Spatial differentiation problems in the development of the Polish economy

During the evaluation of social and economic development of nations in the second half of the 20th century, the emphasis is increasingly placed on the analysis of spatial differentiation of economic activity. It is seen in the growing importance of regional policy that aims to stimulate the efficient development of certain territories of a given country. Regional policy aims to level out[38] differences in living standards in various regions by using their potential, like demographic and cultural factors, natural resources, geographical location, etc. Finally, its most important element is to prevent environmental pollution provoked by the excessive concentration of industrial production.

While analyzing the spatial structure of the Polish economy we should point at a number of errors. The most important of them include the excessive differentiation of economic activity and infrastructure, which also entails the different income levels in various regions. This can be seen from the well-known distribution into «Poland A» (the better-developed central and western parts, especially the territories within the Trójmiasto-southern state border triangle) and «Poland B» (regions that are poorly developed, especially the eastern part of the country) (Marciniak, 2003: 19). The above regional problems have a deep historical context and it is difficult to trace the changes that arose from decisions made during modern planning. Investments made between the wars were insufficient to economically rehabilitate the weaker regions in terms of agricultural development. The economic policy carried out at the time of the People's Republic of Poland, when investment decisions were dictated by political considerations and often led to errors in the economy, did not contribute to efficient regional development. The consequences of this policy, which became clear after 1989, led to a drop in activities of all the regions (for example, the decline in the textile industry in the Lodz region). At the same time, the industrialization process in 1945-1989 resulted in numerous environmentally contaminated areas. Economic changes that occurred during the subsequent transformation increased the regional polarization even further.

The administrative reform carried out in 1999 was important in improving the spatial structure of the Polish economy. The reform was

[38] «To level out» is not quite an appropriate term. In the ex-USSR this term describes arresting the growth of large cities, primarily regional capitals, and moving productive forces to the western parts of the country. Although, often enough their efforts were futile. In the modern EU, creative cities are not restrained, but they actively support the outsiders (*Notes of the Ukrainian editors*)

tasked with territorial division, which, unlike the previous administrative divisions, was largely dictated by economic factors. In total, 16 voivodships, 308 powiats, 65 cities with powiat authority, and 2,489 gminas were created (the division by gminas remained unchanged).

Owing to the short period since the implementation of the reforms, the reorganization of administrative divisions and the related delegation of some powers to public authorities did not contribute to any significant changes in the regional economic structure. It can be assumed that streamlining the division of the regions will lead to the deeper specialization of regional economies, as well as improved functioning. The EU accession and the resulting access to structural funding is an additional factor that undoubtedly drove the leveling of the asymmetric development of certain parts of the country.

The participation of the five poorest eastern voivodships (Podkarpackie, Lubelskie, Warmińsko-Mazurskie, etc.) in the «Eastern Poland Development» operating program is an important example of the positive effects of the EU integration. The European Regional Development Fund allocated EUR 2.27 billion for this program for 2007-2013. It is a vivid expression of the responsibility of European policy to the Community's poorest regions, as well as the macroeconomic expression of the territorial cohesion, which is an innovative solution in the Polish economy.

2.6.7. Labor market problems as a result of the structural changes

High unemployment in Poland was one of the main problems in both economic and social terms. Starting in 1991 and through the next 10 years the unemployment rate remained above 10%, not even retreating below that threshold during the strongest economic growth in 1995-1997 and reaching a record-breaking 20% in 2003. The rate only came down significantly in 2006-2007 due to improved market conditions and the liberalization of labor markets within the EU.

Analyzing the Polish labor market tendencies in chronological order, we highlight two main reasons for unemployment in the first years of the transformation. The first is related to changes in market conditions, leading to limited demand due to the «shock therapy», the drop in production, and the reduction in jobs. The second was brought about by the release of unemployment hidden in the corporate sector. Prior to 1989, complete employment was among the state's priority tasks, implemented for political reasons. The level of employment at state-own enterprises did not meet the principles of a sound business plan and did not correspond to a cost-benefit analysis. As a result, the economy faced

hypertrophic employment, estimated at 10-30% (Sztanderska, 2001). The transition to a market economy exposed the scale of this problem, resulting in a massive surge in unemployment in 1990-1991

One of the main causes of unemployment after 1992 were structural changes, in which the integral element became the change in demand for labor due to the parallel processes of the elimination and formation of jobs. Following the changes in the shares of the main economic sectors in the formation of national income, significant changes also took place in the proportion of individuals employed there. The nature of these structural changes was traditional, however, the decline of agriculture's and industry's shares in added-value creation came alongside a decreasing share of these sectors' employment compared with overall employment in the economy. The services sector tended towards proportional changes in both the share of added-value and the creation of jobs. The total number of jobs in the first two sectors exceeded 3.1 million individuals and the services sector provided slightly more than 1 million jobs, therefore in 1992-2005 more than 2.1 million total jobs were lost.

In order to understand the reasons for this catastrophic drop in employment in industry, we analyzed the processes of creating and eliminating jobs in selected industries. Those industries were marked by a distinct asymmetry between the number of industries where jobs were created and those where their number reduced. In most industries in the reviewed period, the number of employees declined, while new jobs were only created in some of them. A total 1.0501 million jobs were eliminated, while only 183,900 jobs were created.

For the reasons outlined, we can state that restructuring the Polish economy would have had to follow a path of de-industrialization rather than re-industrialization. The share of decaying industries in both production and employment was falling, while there was no simultaneous expansion of new industries. The shortcomings of the processing industry's modernization led to the lack of correspondence between the structure of aggregate demand and the range of manufactured products. At the same time, the low competitiveness of the Polish economy on international markets restricted export opportunities. Furthermore, the growing trade deficit and its negative consequences had a powerful impact on both the labor market («imported unemployment») and the economy as a whole.

Negative changes in the level of employment amid the overall positive trend towards production growth (in terms of both industrial product sales and the growth of added value) clearly indicate that Poland's economy was on the rise during the reviewed period. In modern

economies, this phenomenon is usually explained by technological progress. Cases of significant GDP growth with a slight increase in employment rates or even no growth are particularly noticeable in transitional economies, since the relative technological backwardness offers no chance to progress. Labor efficiency grows at an accelerated pace because of the transfer of technology, especially through FDI (Kwiatkowski, Roszkovska, Tokarski, 2004).

Apparently, spontaneous transfers of technology are taking place in the Polish economy, leading to an efficient increase in the output of traditional products, and therefore, shrinking job opportunities. The expansion of high-tech industry does not always facilitate the development of human resources and their involvement in the production of new products and new job creation. In Poland, the share of employed individuals in technologically advanced industries and in those producing goods or providing services differs from the EU average. Meanwhile, in developed knowledge-based economies starting from the second half of the '90s, technologically advanced industries accounted for most newly created new jobs. This is a beneficial phenomenon not just in terms of providing employment, but also in improving its structure, since most jobs in «new» sectors are intended for highly qualified scientific and technical personnel (Zakrzewski, 2002). That shows how important it is to develop knowledge-based economies, since they create new jobs for post-secondary graduates, which then significantly improves the structure of employment.

CHAPTER 3
EVOLUTION OF THE ECONOMIC MODEL IN UKRAINE

3.1. Background and Specific Features of Market Transformation

3.1.1. Introduction

Ukraine is one of the largest countries in Europe by population, area, industrial development, natural resources, and workforce. However, despite the generally favorable starting position[1], during the transformation period Ukraine faced a series of problems that it was unable to solve for both objective and subjective reasons. Both Ukrainian (O. Belyaev, 2006); A. Halchynskyj, 2001; S. Mochernyj, 1999; V. Pynzenyk, 1998; V. Heyets, V. Semynozhenko, B. Kvasnyuk, 2007; V. Heyets, 1999; I. Akimova, 2001) and foreign economists (E. Wilson, 2004; O. Hawrylyshyn, 2005; Stefan von Kramona-Taubadel, A. Siedenberg, L. Hoffmann, 1998; L. Hoffmann, F. Moellers, 2001) conducted theoretic and practical research of transformation processes in Ukraine[2].

Today we can claim that the Ukrainian economy has gone through the major stages of market transformation: 1) destruction of the old command economy and formation of new market mechanisms, accompanied by inflation and a rapid decrease in production; 2) financial stabilization that, depending on the political will of the country's top officials, is accompanied by a number of social and economic crises; 3) development, i.e. when the real and financial sectors are sanitized as a result of qualitative transformations in the economic institutions of society that can define and implement the policy of economic growth (A. Halchynsky, V. Heyets, A. Kinakh, V. Semynozhenko, 2002, p. 27).

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[1] In the early 1990s, economists defined the starting position of Ukraine as the most favorable for market economy reforms among other countries of the FSU (Former Soviet Union). Deutsche Bank placed Ukraine at No. 1 in 1990 (83 points, while the Baltic States scored 77 points and Russia got 72). This is mainly attributable to the high industrialization level, agriculture, export potential, mineral resources, and infrastructure.

[2] American economist Oleh Hawrylyshyn made an analytical study of how economic transformations in Ukraine are reflected in foreign economic literature (O. Hawrylyshyn, 2005). The author makes certain optimistic conclusions: firstly, both reknown and young experts study Ukraine, using the most advanced techniques of modern economic thought; there are in-depth studies of the issue in the English-language literature, which indicates that there is global interest in the issue; secondly, many experts studying the subject are not Ukrainian and are not even part of the Ukrainian diaspora. The author also forecasts that oligarch structures and land privatization are to be of major interest; these forecasts have already come true. When studying market transformations of the Ukrainian economy it is important to compare different schools of thought, the expert opinions of which are often contradictory to each other.

When characterizing the background and the preliminary transformation phase, we need to point out that compared to other countries that started reforming their national economies in the late 20th century (Central and South European states, the Baltics, and the CIS), Ukraine has the longest periods of decline and one of the worst cumulative decline rates. (Table 3.1).

Table 3.1

CUMULATIVE DECLINE IN NATIONAL PRODUCTION AND THE REAL GDP INDEX IN SELECTED ECONOMIES IN TRANSITION

Country	Production decline period, years	Cumulative production decline	Real GDP index in 1999 (1990 = 100)
Central and South Eastern Europe and the Baltic States	*3.8*	*22.6*	*103.1*
Albania	3	33	102
Bulgaria	4	16	78
Estonia	5	35	80
Latvia	6	51	58
Lithuania	5	44	66
Poland	2	6	141
Romania	3	21	80
Slovakia	4	23	104
Slovenia	3	14	113
Hungary	4	15	105
Croatia	4	36	84
Czechoslovakia	3	12	97
CIS	*6.5*	*50.5*	*57.7*
Azerbaijan	6	60	53
Belarus	6	35	82
Armenia	4	63	50
Georgia	5	78	29
Kazakhstan	6	41	60
Kyrgyzstan	6	50	62
Moldova	7	63	34
Russia	7	40	59
Tajikistan	7	50	56
Turkmenistan	8	48	63
Uzbekistan	6	18	93
Ukraine	10	59	41

3.1.2. Background for the Transformation of the Economic Model of Ukraine

There are certain objective factors that brought about transformation in Ukraine. Among these factors are micro- an macroeconomic imbalances of the planned economy inherited from the USSR. The economic crisis of the 1990s in Ukraine was the immediate continuation of the structural crisis that the USSR had been experiencing prior to its dissolution. I. Burakowsky and V. Novytsky claim that Ukraine has a very distinct Soviet legacy that is not limited to mentality, management style and market infrastructure. It is the legacy that is organizational as well as technical and economic in nature; among these are the high level of energy and resource inefficiency, irrational production links, highly depreciated fixed assets, scientific and technical innovations were not in demand by production (Political and Economic…, 2003: 74-75).

Obviously, the structure of the Ukrainian national economy was in crisis starting from early stages of its independent development, because for decades it had been formed as an inseperabale part of the Soviet structure aimed mainly at the development of heavy industry, the military complex and self-sufficiency. The need for restructuring forced production decline, at the same time this process was reinforced by the destruction of the established cooperative ties, the loss of traditional markets, and the loss of savings by the population. All this led to the dramatic decline in the production of goods and services, which, in turn, led to the further deterioration of structural imbalances.

One can also claim today that the relatively high economic potential prevented Ukraine from realizing the so-called advantages of backwardness. The more developed a planned economy was in the past, the harder it turned out to implement its market reforms, because the structural imbalances are more deeply rooted in the fixed assets. In other words, it turned out that smaller and poorer countries had shown better national economy macrodynamics during the period of transformation. The capital intensity of the Ukrainian economy in basic industries worsened chances for its reformation by creating new capacities (like China did), which added unprecendented scale to structural reformation.

3.1.3. Economic Policy of the Transformation Period in Ukraine

The key subjective factor affecting the process of market transformations in Ukraine, especially in the first years of the transformation period, was the ineffective economic strategy. This fact is acknowledged not only by domestic and foreign economists but also by high-ranking officials and

economic consultants. It is further proved by the annual correction of government reform programs.

When analyzing different versions of transformation (shock therapy, gradualism, and institutionalism), we need to conclude that having no strategy of reforms and theoretical ideologists, like Poland (L. Balcerowicz, A. Gelb) or Hungary did (J. Kornai), Ukraine imported the outdated concept of the Washington Consensus[3].

As a result of the use of the concept, Ukraine faud structural imbalances, especially between the real and financial sector of the economy, technological degradation and the de-industrialization of the national economy in the form of a growing share of outdated and inefficient material- and energy-intensive types of production, no conditions for long-term and sustainable development for production types with long pay-back period and capital turnover cycle; loss of traditional international relations at all levels of the reproductive cycle «fundamental science — applied research — new technology — industrial production» which weakens the scientific and technological potential; further deterioration of the labor force in various industries, especially in the high-tech ones, i.e. outflow of qualified professionals abroad and deteriorating qualifications of those who stay in Ukraine; general deterioration of social standards of living as well as general attitude to environment' that in current conditions became antagonistic in nature.

A major drawback of the Ukrainian market transformation model was its focus on the idea of the survival of those who are most adaptive to change, which led to indifference to the problems of common Ukrainians. As a result, people developed a negative attitute towards reforms and the level of mistrust towards the state overall became stronger. It is no surprise that in the late 1990s the Ukrainian economy was stagnating, but paradoxically, it is surprising that it was somehow functioning, because the borrowed liberal model was being implemented without such major components as antitrust regulation and social protection. Economic growth was planned with no innovation in integrated production, structural reforms were not supported by the national financial capital that was for the time being separated from the real economy.

The critique of the Washington Consensus from both its ideologists and recipients led to the development of its corrected version, which was, however, unproductive in correcting the drawbacks. In other words, the Post-Washington Consensus did not work for Ukraine either.

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[3] The main drawbacks of the concept are known to be the focus on industrialized and even pre-industrialization countries of Latin America, insufficient role of the state during the transformation period, insufficient attention to globalization and neglect of institutional reforms. The concept also disregarded the fact that in the post-Soviet states, economic transformations were accompanied by the state-building processes.

At the same time, positive economic developments in terms of market prospects also took place. These are the formation of an efficient and competitive private sector of the economy and a layer of entrepreneurs; formation of national markets for goods, labor and capital with mainly market-driven price formation — these markets can meet effective demand; the introduction of a stable national currency, the hryvnia, establishment of national financial and banking systems, diversification and liberalization of foreign economic relations, establishment of new channels for trade and investment cooperation.

The obvious achievements that Ukrainians made over the transformation period are an accumulation of entrepreneural energy in productive fields and fields with significant potential; formation of such characteristics as business intiative, business focus, active life position, understanding of the importance of individual interest and striving to realize its priority over market relations; understanding that work is the sole way to welfare; internal need for joint participation in the restructuring of social, economic, and polical relations; pride in the international image of the country.

When estimating market transformation internationally, experts talk of adequate and false versions. Adequate versions that were used in Poland, the Czech Republic, Latvia, Lithuania and Estonia focused on a decisive and consistent movement towards a liberal economy that was not insured against economic shocks and social protests but provided a rapid revival of the national economy, increase in domestic and foreign investment, etc. False versions focused on transformational moderation and the characteristic peculiarities of their implementation were a lack of system and completion of the reforms, which invariably led to rent-seeking behavior and corruption among businesses and the shadow economy as well as continuous stagnation in society as a whole.

The key components of reforms in Ukraine cannot be classified as false but it is clear that they were not adequate either — on the one hand, state monopoly was removed, which also removed the inefficient distribution of limited resources; on the other hand, because the state overly limited its influence on macroeconomic regulations, new forms of ownership and power monopolization emerged. Ukraine is basically forming a national capitalist corporate economy (Andrew Wilson, 2004: 427), several regional oligarch groups accumulated all business, mass media and political power. Current political confrontations change their format and participants, but its essence remains unchanged, which is both pragmatic and destructive as retards the real national interests of economic develoment[4].

[4]The data of reputable publications on the personal wealth of Ukrainian oligarchs are indicative — according to Korrespondent magazine in 2008 the total wealth of the 50 richest Ukrainians was more than USD 112 b., which is more than twice the budget of Ukraine. The richest man in the CIS and Europe became Rinat Akhmetov (USD 31.2 b.).

Overall, Ukrainian and foreign experts characterize both the reform components, mainly privatization, and the transformation process as a whole, as unsatisfactory. We deem the main reasons for failures in the domestic and foreign economic policy in Ukraine to be the temptation to use global system changes ignoring the specific features of the transformation process and attempts to fit into the world business system with an inadequate institutional base. Therefore, one needs to critically assess not only the theory and practice of market reforms[5], but also the real opportunities of effective development in the global competitive environment.

3.1.4. Transformation of the Economic Model of Ukraine in Light of International Rankings

Ukraine currently ranks low on competitiveness rankings[6] by most criteria (Table 3.2).

Table 3.2

UKRAINE'S POSITION IN WORLD RANKINGS, 2007

Criterion	Number of countries	Ukraine's position
World Economic Forum global competitiveness index	131	73
World Economic Forum business competitiveness index	127	81
The Heritage Foundation & The Wall Street Journal economic freedom index	161	125
UN human development index	177	77
A.T. Kearney&Foreign Policy globalization index	72	43
Swiss Institute for Business Cycle Research (KOF) globalization index	122	50
Doing Business report by the World Bank	178	138
International Institute for Management Development ranking (Lausanne, Switzerland)	55	46
Corruption perception index by Transparency International	179	118

[5] Transformation was a major topic for Ukrainian researchers in the late 1990s-early 2000s, but then their focus shifted to the problems of innovative development and competitiveness.

[6] In the recent past, these rankings were one-off, had limited coverage, and only took into account certain aspects of development and competitiveness. Higher rankings characterized the level of industrialization, export potential, mineral resources, infrustructure, and education. Modern country rankings are more systematic and serve as a sort of indicator of the national potential in the globalized world.

In 2007-2008, Ukraine ranked 73rd in the World Economic Forum global competitiveness ranking, which is worse than Lithuania (38), Latvia (45), Hungary (47), Poland (51), Croatia (57), Russia (58), Kazakhstan (61), Uzbekistan (62), Azerbaijan (66), Vietnam (68), and Brazil (72). In the Global Economic Forum business competitiveness index (detailed research of microeconomic aspects of competiteveness by M. Porter) among 127 countries, Ukraine ranked 82 (the quality of business climate) and 83 (company operations and strategies).

In the competitiveness ranking by the International Institute for Management Development (Lausanne, Switzerland), that has been compiled annually since 1989, Ukraine ranked 46th out of 55 countries in 2007, which is behind Chile (26), India (27), Lithiania (31), Bulgaria (41), Russia (43), Romania (44), and the Philipines (45). However, Ukraine was ahead of Mexico, Turkey, Brazil, South Africa, Argentina, Poland, Croatia, Indonesia, and Venezuela. Estonia (22) and Lithuania (31) enjoyed the highest rankings among the post-Soviet states; Russia has placed 43. According to certain criteria, such as technological infrastructure, Ukraine ranked among the top 10, but got worse results for structural reforms, property rights protection, political stability, business regulation or state macroeconomic policy.

The economic freedom index that characterizes how well the national economy relates to liberal principles (by the Heritage Foundation and the Wall Street Journal) placed Ukraine No.124 among 161 countries in 1998 and No.8 among the countries of the CIS and the Baltics; in 2001 Ukraine ranked 133 among 155 countries. In 2007 the average global index was at 60.6 points, average European index was at 67.5, Ukraine got 53.3 points and was characterized as mostly unfree. Ukraine ranked No.125, while Latvia ranked No.41, Bulgaria ranked No.62, Romania ranked No.67, Moldova ranked No.81, Poland ranked No.87, and Russia ranked No.120.

In the UN human development index (comparison of welfare, literacy, and average life expectancy), in 2001 Ukraine ranked No.74 out of 162 countries, in 2006 — No.77 out of 177, which is worse than Russia (65), Belarus (67) and Thailand (74).

The globalization index (compiled annually by A.T.Kearny and Foreign Policy magazine based on 14 criteria of economic, political, technological and social integration) ranked Ukraine among 72 countries by such criteria as participation in global political processes (53), personal international contacts (49), and economic integration (17). In the globalization index (KOF), compiled by the Swiss Institute for Business Cycle Research (Zurich, Switzerland) in 2007,

Ukraine was awarded 61.83 points out of a maximum of 100 points (No.50 out of 122).

In the 2006 Doing Business report, Ukraine ranked 128 out of 175 countries, in 2008 Ukraine was No.139 out of 178, which is below Kazakhstan (71), Moldova (92), Kyrgyzstan (71), Ethiopia (102), Russia (106), Belarus (110), Uganda (118), Mozambique (134), Iran (135), and Uzbekistan (138).

Effective public management (political stability, rule of law and responsibility of the government, freedom of personal and business choice) is particularly important for Ukraine. This aspect was closely monitored by the World Bank in 1996-2006; as a result, The Quality of Public Administration 2007 report: Global Indicators of Public Management 1996-2006 was published. Out of a 100 point maximum, Ukraine got 40 points for the responsibility of the state to the voters (Poland and Estonia got 84 each, Lithuania and Latvia got 73 each, Romania — 57, Mongolia — 56, Mozambique — 44), 32 points for political stability (Poland got 54, Estonia -t 67, Lithuania — 77, Latvia — 74, Romania — 46, Belarus — 45, Turkmenistan — 34 points), 40 points for the effectiveness of the government (Egypt got 43, Mongolia — 44, Estonia — 83, Lithuania — 76, Latvia — 73, Romania — 57), 47 points for effective regulatory policy (Armenia got 57, Romania — 58, Poland — 69, Latvia — 79), 35 points for the rule of law (Armenia got 42, Romania 57, Poland 60, and Latvia — 61 points), 34 points for curruption control (Georgia got 38, Mongolia — 39, Estonia — 80, Latvia — 66). In the same year Ukraine ranked 50 out of 55 countries in the IMD WCY assessment.

In the corruption perception index (compiled annually by Transparency International, Berlin, Germany, since 1995 and based upon representative analytical materials of respective research agencies) Ukraine ranked 83 out of 91 countries in 1998. In 2006, it ranked 99 out of 163 countries, and in 2007 — 118 out of 179 countries, which was below Moldova, Mozambique, Zambia, Rwanda, and Uganda. In 2007 Ukraine ranked 53rd out of 55 countries according to the IMD World Competitiveness Yearbook.

This means that Ukraine has to choose between living without post-industrial and informational claims and structural as well as technological modernization of the national economy. If we go for the first option, we need to effectively use the present natural resources with the use of industrial technology, introduce relevant models, provide for the renewal of a labor force that is capable of copying technology and thus adapt to global living standards. The question is whether this version is sufficient for Ukraine, which has the potential for competitiveness on the international arena.

If we go for the second option, we need to mobilize intellectual resources, will and based on pragmatic public policy, make an economic breakthrough. Modern Technology of Economic Breakthrough (TEB) as a mechanism of the realization of long-term development for Ukraine as a globally competitive country was publicly introduced by Ukrainian economist, Head of Competitiveness Council of Ukraine Y. Poluneev. The techology was used as a basis for the work of the Ukrainian government in 2007[7]. The theory stresses that evolution (organic growth based on current trends, factors and competitive advantages) will not give new quality to the economy and country as a whole within 10-20 years. We need more ambitious rates of economic growth, which can be achieved through the implementation of a relevant economic policy.

3.1.5. Conclusions

We feel, that based on Ukrainian and international reform experience, it can be said that in order to achieve sustainable economic growth in Ukraine, we need a nation-wide policy rather than that of separate parties or oligarch groups[8]. Economic growth cannot be achieved unless economic policy is based on the national economic consensus that is, in turn, based on the following factors: taking into account current and perspective, individual and social economic interests, equality in the access to the results of social progress, democratic development, i.e. citizen participation in the decision-making process. This consensus has to be socially constituted rather than conjunctural. We thus need the constructive, transparent and clear cooperation of all institutions of the state and the market. The permanent absence of an economic consensus in Ukraine can soon lead not only to the next political crisis but also to the loss of the critical level of the national consolidation that has already been achieved. When guarding the national interests and security of Ukraine, we need to rely solely on the internal potential of economic thought, whereas foreign participation needs to be consultative in nature. It is particularly important to prevent or neutralize the political and

[7] TEB vectors are based on more that 320 indicators and expert opinions that are used in the internationally acknowledged ranking methodology for country and region competitiveness at the Institute of Management Development (IMD-Lausanne), World Bank, UN, OECD, Dow Jones, AccountAbility.

[8] In democratic countries politics can be and as a rule are party-based, because the state and national priorities are key for all parties. In Ukraine the programs of certain and fairly influential political forces in effect question its sovereignty, while Ukrainian oligarchs, with very few exceptions, ignore not just the interests of the population but also those of the nation.

financial influence of other countries and international organizations on the selection of key directions of the economic development of Ukraine. In modern conditions, this requires active measures of political and commercial diplomacy.

The key qualitative feature of the new economic policy of Ukraine needs to be the innovative focus while taking into account global trends of intellectual, informational and democratic processes in the economy. Ukraine has fairly good achievements of economic thought (A. Halchynsky, V. Heyets, A. Kinakh, V. Semynozhenko, 2002; V. Heyets, V. Semynozhenko, B. Kvasnyuk, 2007; O. Vlasnyuk, 2006; D. Tabachnyk, 2004) that unfortunately have not been implemented so far.

In the strategic sense, only an open competitive national economy can guarantee success. Given global imbalances (D. Lukianenko, O. Mozhoviy, 2006), developed countries are the ones that benefit the most from the high level of openness of national economies. The Ukrainian economy has experienced this — the outflow of productive resources strips it of major sources of development, the spread of transnational corporations breaks national renewable patterns, initiates the processes of structural simplification, as well as the peripheralization and intensification of the secondary nature of certain industries. Economic globalization brings innovative technology, business and management experience, and real capital that can improve the employment level. However, these trends are not dominant and the challenges of globalization are intensifying.

In light of these facts, a traditional approach to the aims and conditions of the formation of a national model of an open economy is to be revised. On the macrolevel, we need to take into account the correlation between domestic and foreign macroeconomic policy (structural reforms influence the competitiveness of locally produced goods, increased export is a favorable factor thereof; the real sector defines the long-term trends of the monetary realm, which in turn creates favorable conditions for the sale of produced goods both on domestic and foreign markets, etc.).

At the microlevel, it is important to allow all sorts of businesses to enter foreign markets of goods, services, and capital, make foreign trade an organic component of their business activity. The processes of entering foreign markets require a new legislative base. The main obstacles to making Ukrainian businesses internationally competitive, are high depreciation and worn out fixed assets, excessive material and energy intensity of production, underdeveloped production and market commercial infrastructure, limited domestic and foreign investment

sources as well as imperfect management style of domestic and foreign economic activity.

Effective economic policy is to minimize the chance of repeating past mistakes and miscalculations, take into account the experience gained and be focused on innovative ideas and approaches that have been proved effective domestically and are implemented according to the modern development paradigm.

3.2. The Model of Compensatory Economic Growth

3.2.1. Introduction

The problems of economic growth are important for many countries, but for the states that went through substantial social and economic changes in the 1990s they are extremely urgent, because during these years they fell far behind. The relatively high pace of economic development that started in the 21st century is often attributed to certain political leaders; however, this growth is highly controversial, because it is compensatory in its nature. Ukraine is no exception — its economic deterioration during the transformation period is attributable to a number of objective and subjective factors that hindered transformation towards a market economy. The major factors are as follows:

- market unreadiness of society in terms of understanding the essence of economic reform, its principles and institutions;
- absence of a clear and consistent reform strategy that follows any model, be it the shock therapy model by L. Balcerowicz or the gradualist model by Y. Kornayi. As a result, a certain mix emerged, which is often ealled a post-soviet development model, but it is impossible to single out common features, social relationships and transition to the next implementation level, because integration processes are not comparable;
- rapid growth of the shadow economy, increased criminalization of the economy, numerous wars between certain economic groupings trying to divide the turf in the early 1990s;
- rapid increase in state debt levels, incomplete nature of measures taken to rehabilitate the economy, inconsistency and lack of transparency of reforms;
- significant energy dependence on export, outdated technology in metal production, chemical and sugar industries, which are the largest energy consumers;
- capital outflow to numerous offshore zones.

These and other factors brought about the rapid recession of the Ukrainian economy in the 1990s; the annual rate of 10-20% of GDP decline caused systemic shock, which can be seen as a prolonged (up to 10 years) version of its Polish counterpart. Therefore, transition towards the model of gradualism was impossible during the period. Thus the problems of the transformation of the national economy turned out to be more complex than those in the countries of the CEE.

3.2.2. Specific Features of Compensatory Economic Growth in Ukraine

In modern economic theory there is a number of factors used to assess the quality of economic growth; their combination can bring about a synergetic effect in gradual development or hold it back. This trend is especially noticeable with regard to the global economy, where conjunctural changes are major and cause a big wave of fundamental changes in all sectors of the economy. Energy price increases for residents of rural areas in several European countries forced them to stop growing wheat and other food crops and grow other crops that can be used as biofuel. These changes will soon lead to food price increases, the production of equipment for the food industry and other related sectors, as well as the deformation of the market. All this can influence structural changes in the global system of economic relations. Because the public structure is not diversified enough, the periods of growth and recession are becoming more noticeable. Ukraine is no exception — its development in many respects depends on oil and natural gas prices, because its main export products are ferrous metals and products thereof. This sort of production is very energy intensive — in the early 21st century metals enjoyed favorable market conditions and energy price increases coincided with metal price increases, but there is no guarantee that the situation will remain the same. Decreasing metal intensity of machine building that is about to take place in the near future will lead to new changes in the global economy. Therefore, the recent relative success of the national economy looks fairly unconvincing, since the market infrastructure for ferrous metal products that accounts for 40% of total Ukrainian exports could deteriorate.

Thus, the illusion of rapid (in 2000-2006) economic growth went away pretty fast and the growth can be characterized as compensatory, i.e. based on the extensive growth factors. These factors are:

- relatively low energy prices (particularly gas);
- favorable global ferrous metal market conditions;
- remittances from abroad;

- privatization (including through raider attacks) of certain state-owned enterprises;
- foreign investment inflow into certain selected sectors of the national economy.

It is natural that favorable conditions cannot become permanent; therefore, soon each of the above factors will have the opposite effect (energy prices will keep growing, foreign remittances will go down, immigrant parents will instead take their children to Italy, Spain and the USA; the privatization process will end, but we do not know whether all the raided plants and factories will operate and whether conditions will be created for foreign business in Ukraine). The problem of innovation complex development is no less important — it has been discussed in Ukraine for a while, but real tools and mechanisms have not been developed yet. Most researchers, however, see real opportunities for the increased competitiveness of national producers on the global economic arena in the formation of the new economy.

Many European researchers, including R. Strätling (2003), think that the problem of the weak diversification of the energy sector in the EU is difficult and will not be solved soon. Danish researcher G. Svendsen (2003, p. 23) is convinced that economic growth depends on a number of production factors, among which social capital is equally important as the physical capital. Therefore, the strategy of increasing the competitiveness of the national economy should simulate the European model of economic growth that is based on decreasing energy intensity, an innovation-investment growth system and focus on the new quality of human potential.

The model presented below (Figure 3.1) reflects the evolution of the conceptual approaches to the quality of economic growth. Despite the inclination for market methods of management, Ukrainian officials often use «manual» management techniques. At the level of post-socialist shock that lasted for 10 years, such methods were justifiable, but under londitions of transition to market economy and the start of the compensatory growth, such management became very Rarmful for the quality of growth. We forecast that the constant interference of highly-placed officials into all aspects of life can destroy the mechanism of effective management of the economy. On the other hand, numerous cases of abuse of power, both in the regions and in the capital, require an immediate response from the president or prime-minister, which makes us think that Ukraine has a dualistic growth model. The implementation of European mechanisms and instruments of regulation of social and economic development in 2008-2013 would enhance favorable factors and reduce the impact of adverse factors and, therefore, transfer to the technology-based stade of growrh.

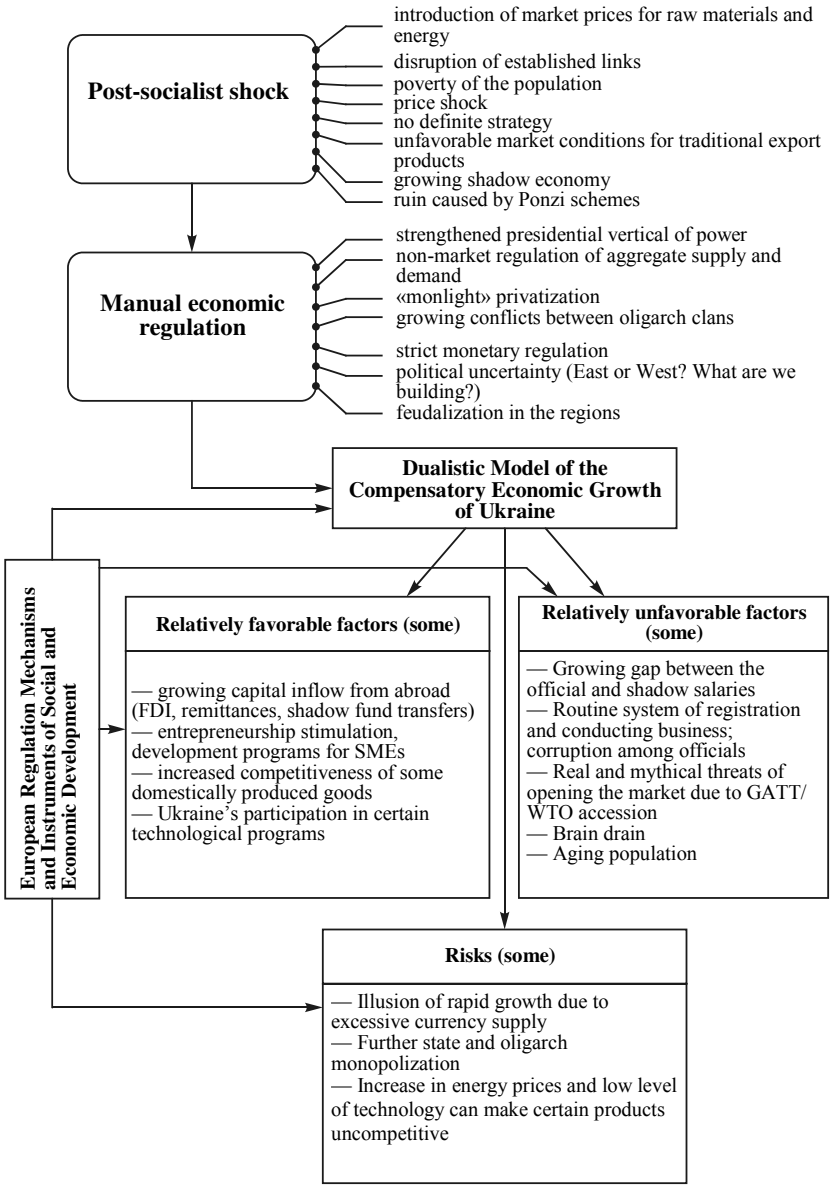

Figure 3.1. Model of Compensatory Economic Growth in Ukraine

3.2.3. Determinants of compensatory growth

The growth of macroeconomic indicators in Ukraine started in the second half of 1999 after a long production and social crisis that stripped Ukraine of 59.3% of its GDP. During the period of economic growth until mid-2008, the Ukrainian economy only recovered 31.9% and reached 72.6% of the GDP level from 1990 (Figure 3.2). This makes such economic growth compensatory, i.e. growth that utilizes productive resources that had been freed during the crisis.

The implemented policy of active production growth at any cost results in long-term economic recovery. If the average annual growth of real GDP stays constant (7.5 %), the gap with the 1990 level (27.4%) can only be bridged in 2012, i.e. 13 years after the start of economic growth. Only then provided that new strong material and technical resources emerge, which is the only long-term development factor, can the economy of Ukraine enter the stage of an economic upturn.

Research of the specific features of the economic development of Ukraine and other countries, conducted by the Ministry of Economy of Ukraine, Ministry of Finance, and the National Bank of Ukraine, entitled «The Potential of Ukraine and its Fulfillment» (2008, p.12) proved that in 2000—2005 Ukraine ranked No.7 out of 46 analyzed countries according to average GDP growth rate. An important trend of global economic development was that countries of the CIS (Azerbaijan, Armenia, Kazakhstan, Tajikistan, and Belarus) dominated the top 10 fastest growing economies. Some of them have already reached the pre-reform level of GDP value — in Uzbekistan it was achieved in 2001, in Belarus, Kazakhstan and Armenia — in 2003, in Azerbaijan — in 2005, while in Russia — only in 2007. The economic growth of most of these countries was compensatory in nature — increased global demand for raw materials loaded production capacities in export-oriented low-tech industries. For example, Armenian export is mainly made up of copper ore and scrap metals, Azerbaijan exports oil products, steel and cotton, Kazakstan exports oil, gas, and cotton. Belarus is the only exception — its GDP grew due to the active development of export-oriented industrial production of processed products.

At the same time, the world financial crisis of 2008 nullified the forecasts of positive economic dynamics in Ukraine, which proved the unsustainability and unreliability of the compensatory model of economic growth. As we can see in Figure 3.2., in just one year real GDP fell from 72.6% down to 67.4% of the value recorded in 1990.

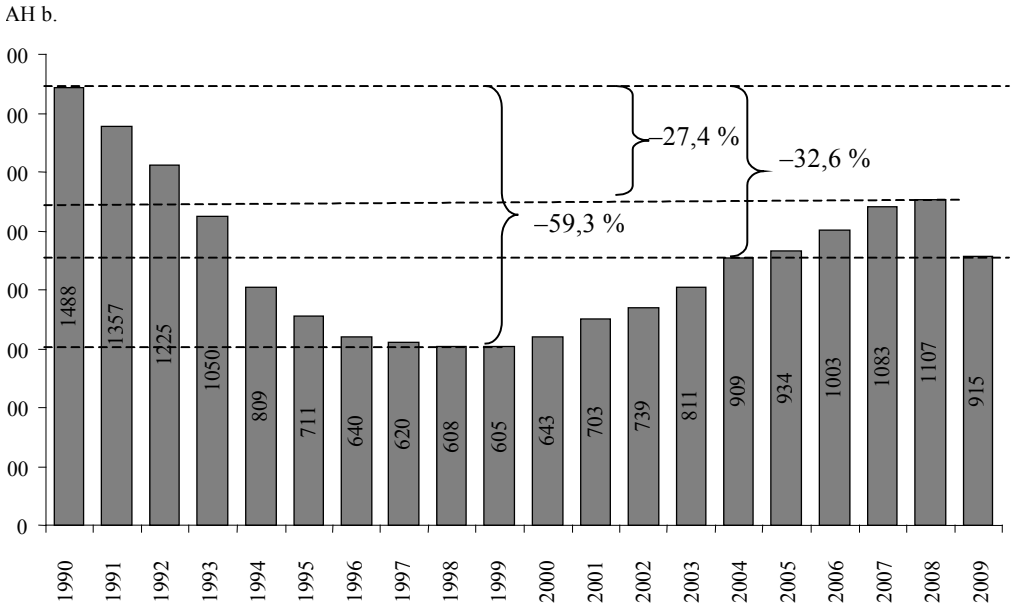

Figure 3.2. Real GDP dynamics in Ukraine *(constant prices of 2009)*

Based on data provided by the State Statistics Committee of Ukraine

In Ukraine a high GDP growth rate resulted from the high levels of production capacity use due to favorable market conditions and the appreciation of the main components of Ukrainian export (mostly low value added raw materials — metals). This allowed for a rapid increase in output without additional investment. But there is little possibility of further increase in GDP via the intensive use of existing production capacities, which is seen in the analysis of the GDP composition according to end use (Figure 3.3.). In 1990—1993 gross savings as a % of total GDP were growing[9] (at 8.7 p.p.) and end consumption was falling (at 9.6 p.p.); in 1994—1999 there was a reverse trend — the share of gross savings fell by 17.9 p.p., while end consumption rose by 9.2 p.p. The period of economic growth (2000—2008) is characterized by the simultaneous uneven increase in gross savings (5.1 p.p.) and end consumption (2.8 p.p.); net export played an important role in GDP dynamics until 2005 — its share was cyclically changing from 5.0% in 2000 to 0.8% in 2005. At the same time, 2006 saw the start of a steady trend of a negative trade balance (–8% in 2008).

These changes in the structure of the GDP in recent years, in effect meet the requirements of economic revival. During this period, in order to accelerate economic revival, the share of savings needs to increase compared to the share of consumption, which creates better conditions for the mobilization of the financial resources of the country. Instead, there is an unsteady trend of simultaneous increase of both consumption and savings, which indicates a gradual decline in the resources for economic revival, which is particularly visible in a significant decline in the share of net export.

Potential opportunities for improving the quality of economic growth are in the first place defined by the volume of capital in the country, which indicates production capacity and the level of fixed asset utilization. Fixed assets are formed through incoming investment and reduced by depreciation. In Ukraine the trend of investment into fixed assets in comparison to prices, became positive with the start of economic growth; investment increase is greater than the real GDP increase (Figure 3.4.). Investment peaked in 2003-2004 when gross investment grew by 27% and 29% respectively against the previous year, which also brought about a 9-12% increase in real GDP. The resilience of the economy to commodity price shocks that Ukraine showed in 2006 proved to foreign investors that it is an attractive target for investment. In 2007 Ukraine experienced a new investment boom (+23.7%), which led to a 7.7% increase in real GDP.

[9] Gross savings include capital increase, working capital increase, and net asset purchases.

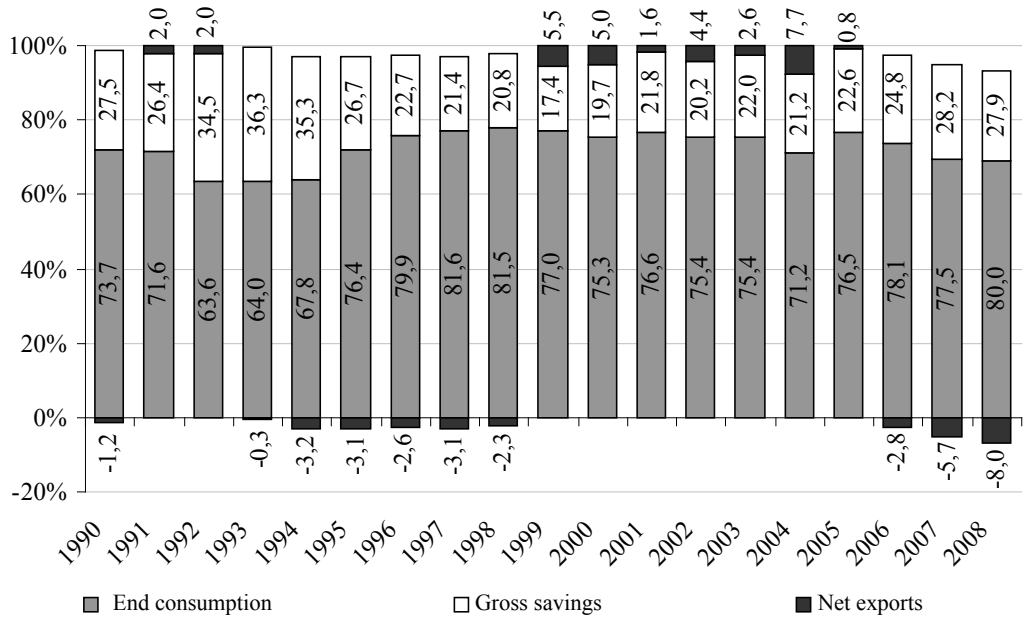

Figure 3.3. Ukraine's GDP Composition According to End Use

Based on data provided by the State Statistics Committee of Ukraine

Real investment into fixed assets in 2007 reached the pre-reform level and constituted 103.4% of the 1990 value. This investment level could be characterized as an achievement of the national economy, but the crisis of 2008 revealad certain problems in the investment activity of Ukraine; they are situational, speculative and focus on rapid returns. In 2009 investment into fixed assets decreased by 44.2% against 2008, when this indicator also showed negative dynamics. Such dynamics makes the modernization of national production impossible while competition on domestic and international markets is growing, M&A activity is becoming more active and gas prices are increasing.

In addition to the investment problems analyzed above, the dynamics of the share of accumulated depreciation in the GDP highlights that fixed assets are not being replaced at the necessary rate, which has been the case since the period of social and economic crisis. In 1990 the rate of capital consumpion was at 16.8%, in 1993 it was 20.0%, but until 2008 it declined and reached 9.3% (Figure 3.4).

Ukraine is behind developed countries in terms of the gross accumulation of fixed assets, i.e. the level of investment inflow. In 2002-2005 «The Potential of Ukraine and its Fulfillment» research paper, determined that the average rate for 46 countries was at USD 2,580 per capita, while Ukraine only showed USD 179. Despite the fact that in 2000—2005 fixed assets in Ukraine were growing with a compound annual growth rate (7.6%) that exceeded the rate in other countries (6.4%), the Ukrainian value is still lower than that in the 10 countries leading in terms of GDP growth (14.4%) (Potential of Ukraine, 2008: 12). Overall, the real increase in fixed assets in Ukraine in 2006 was at 73% of the 1990 level, while the absolute value was at 60% (p.61).

Investment inflow in recent years is insufficient to improve the quality of economic growth, because inflow does not compensate the depreciation of fixed assets that is currently at 50% across all sectors of the economy.

The industry structure of investments is not favorable for dealing with the compensatory nature of economic growth in Ukraine. As of year-end 2009, only 38% of capital investments went to industrial production that requires the replacement of production resources. Whereas the retail and financial sector received 28.4% of all investments. As of the first half of 2010, industrial production received a major share of investments (39.9%). Against the first half of 2009, investment into industrial production decreased by 11.4%, including by 11.1% for the processing industry, 8.6% for the mining (extracting) industry, and 18.4% for the production of electricity, water and gas. Major investments go to real estate, leasing, engineering (23.3% of the total volume), transportation and communications (14.6%), trade, automotive, household appliances and consumer product repairs (6.5%); 3.3% of investment goes into construction. Investment in Ukraine, therefore, goes into low-tech industries, which doesn't support the innovation-investment course of development.

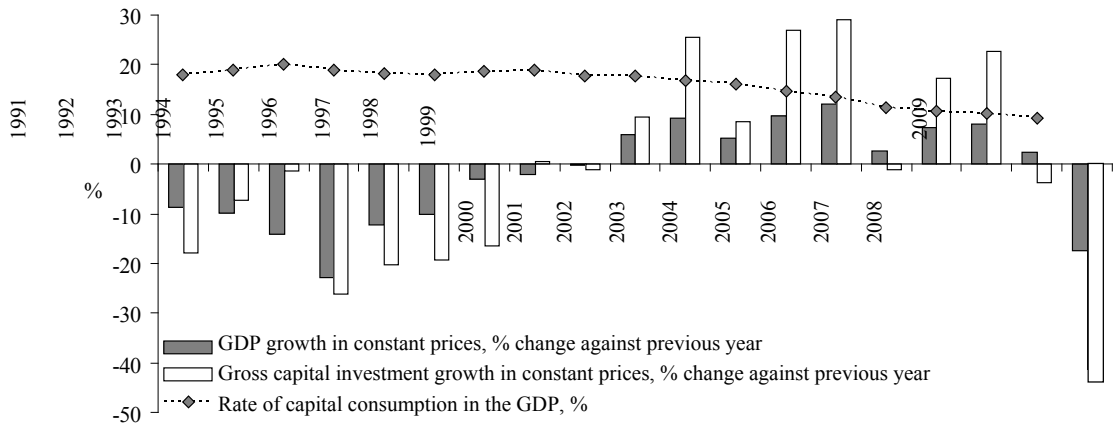

Figure 3.4. GDP Dynamics, Investment in Fixed Assets and the Rate of Capital Consumption in Ukraine

Based on data provided by the State Statistics Committee of Ukraine

Similar trends are observed in foreign direct investment (FDI) — most investments go to production using second, third and fourth-technology modes. In 2006 USD 239.0 m was invested in the production of non-metal mineral goods, USD 144.0 m went into metal production and processing, USD 73.6 m went to food processing and agriculture, USD 55.4 m was invested in extraction. The cumulative share of these industries was 72.8% of the increase of FDI into industrial production. At the same time, the share of the mechanical engineering industry was a mere 7.3% (USD 51.0 m), chemical and petrochemical industries received 7.5% (USD 52.4 m) (The State of Economic Security…, 207: 22). In the first half of 2008 the trend of the reallocation of foreign investment in favor of intermediate industries continued: the growth of the share of FDI that went into intermediate industries (financial services, real estate, utilities and individual services, hotels and restaurants) was at 19.7 p.p. (from 48.4% to 68.1%) while the share of FDI in industrial production fell by 16.8 p.p. (32.6% to 15.8%) (The State of Economic Security in Ukraine in the 1st Half of 2008, 2008: 15).

An important factor for the conservation of the low-tech production structure in Ukraine is external demand, because positive macroeconomic dynamics is maintained by the extraction and export of non-renewable mineral resources (Table 3.3). In 1995-2006 the share of metals in the export structure increased (from 32.7% to 42.2%), while the share of food products went down (from 20.4% to 12.1%). At the same time, the financial crisis influenced the industry structure of foreign trade, which proved that the factors of compensatory economic growth are unstable. The share of food products in the export structure went from 12.1% in 2006 to 23.6% in 2009; the share of ferrous and non-ferrous metals fell sharply from 42.2% to 31.7%. At the same time, the share of cars and machinery in the import structure went down from 31.0% to 20.3%, while the share of mineral products went up from 26.3% to 33.1%.

The low share of machinery and equipment in the export structure (17.1% in 2009) has a particularly adverse effect, because it makes it impossible to achieve long-term steady growth rates by increasing the output of high-tech products and makes the economy of Ukraine dependent on the rest of the world. This takes place at a time when the most developed countries achieve 85-90% of GDP growth through the production and export of high-tech products, creating a new economy, the effectiveness of which is no longer defined by material factors like goods, raw materials, labor force, and equipment but is rather influenced by intellectual factors like expertise, information, and technology.

Table 3.3

STRUCTURE OF THE EXPORT AND IMPORT OF UKRAINE

Products	Export, %						Import, %					
	1995	1998	2000	2003	2006	2009	1995	1998	2000	2003	2006	2009
Food products and raw materials	20.4	10.0	8.9	11.5	12.1	23.6	7.2	6.5	6.1	9.4	7.2	11.0
Mineral products	6.4	7.5	8.2	13.9	8.9	8.6	46.3	37.9	42.9	33.4	26.3	33.1
Chemical products	16.6	13.0	12.4	10.6	11.8	8.7	9.6	11.2	11.0	12.7	15.1	18.5
Timber	1.0	1.6	2.7	3.0	3.1	3.7	2.7	2.9	2.9	4.1	3.3	3.7
Industrial products	4.2	4.9	4.7	4.6	3.3	2.8	4.3	4.6	5.0	5.2	5.4	5.2
Ferrous and non-ferrous metals	32.7	39.0	41.9	35.8	42.2	31.7	3.8	3.9	4.6	5.2	7.5	6.0
Machinery and equipment	16.0	13.0	12.1	15.3	14.3	17.1	18.8	20.8	17.6	24.6	31.0	20.3
Other	2.7	11.0	9.1	5.3	4.3	3.9	7.3	12.2	9.9	5.4	4.2	2.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Balance of payments of Ukraine

Overall factors determining the long period of compensatory revival of the economy of Ukraine and its low competitiveness on the global market are divided into two groups, production factors and demand factors. Among production factors, the main restriction in terms of labor effectiveness is the critically high level of depreciation of fixed assets, the unsatisfactory condition of the production infrastructure, the high level of resource intensity of the economy, and the innovational passivity of most companies. The factors that determine ineffective consumer demand are the low general level of income and excessive inequality of its distirbution among different social layers.

The high depreciation level of fixed assets in Ukraine is caused in the first place by the inadequate financial resources of companies and low investment in fixed asset renewal, while assets are used more intensively. Table 3.4 shows that the growth of output by 21.6% in 2001—2009 caused an increase in the accumulated depreciation of fixed assets from 54.6% to 61.8%. This proves that businesses focus on fast payback and have no development funds to be used to replace the depreciated fixed assets of the company. The replacement of fixed assets at industrial production companies is inadequate (replacement rate in 2005 was at a mere 4.4%) (The State of Economic Security…, 2007: 8).

When analyzing the relation of the dynamics of the fixed assets depreciation level to the output volume by industry, we need to pay attention to certain negative moments that point to the increased intensity of fixed asset use. Firstly, the unfavorable trend of growing depreciation of fixed assets is characteristic of most industrial production types except the low-tech sectors (timber processing, consumer products manufacturing, coke and oil production, non-metal mineral products). Secondly, high-tech industries (automotive, chemical) that provide above average growth rates, unfortunately, cannot replace their fixed assets, the depreciation level level of which, as of 2006 was more than critical, i.e. 63.2% and 69.6%, respectively. Thirdly, the development of basic industries of the Ukrainian economy (extraction of resources, in particular energy; production and distribution of electricity, gas, and water) is particularly ineffective — they showed slow growth rates (11-15% over a 5-year period) and rapid increase in the depreciation level.

The infrastructural sector of Ukraine, i.e. railroads, highways, electricity, gas and water production and distribution, also has a high level of depreciation of fixed assets. The depreciation level of electricity, gas and water production and distribution was at 62.2% in 2009: 33.8% of water supply pipes and 42.9% of street water pipes were in need of urgent replacement (I. Burkovsky, V. Movchan, N. Sysenko, I. Yuzefovych, 2008). This leads to long-standing problems with water supply, numerous electricity, railroad, and gas outages, emergencies on the roads.

Table 3.4

OUTPUT INCREASE AND THE LEVEL OF FIXED ASSET DEPRECIATION BY TYPE OF ACTIVITY

Industry	Production volume growth		Fixed asset depreciation ratio, %		
	2006 vs. 2001, %	2009 vs. 2001, %	2002	2006	2009
Production total	**52.6**	**21.6**	**54.6**	**58.6**	**61.8**
Extraction of energy resources	11.5	2.7	36.4	44.9	46.1
Extraction of other resources	46.3	19.6	62.8	63.2	
Food, beverage and tobacco production	82.9	80.9	40.1	48.3	64.9
Consumer goods production	16.7	–24.6	50.7	45.9	
Timber processing, except furniture manufacturing	160.5	115.5	38.4	28.9	
Paper production, publishing	113.3	93.7	41.4	44.9	
Production of coke and oil refining	7.4	-8.3	52.3	48.9	
Chemical and petrochemical production	61.3	23.0	63.0	69.6	
Production of other non-metal mineral products	91.0	27.7	55.1	54.2	
Metal producion	42.7	–1.9	60.0	67.7	
Automobile manufacturing	131.7	52.3	58.2	63.2	
Production and distribution of energy, gas, and water	14.9	2.7	58.9	61.1	62.2

Source: State Statistics Committee.

This state of the infrastructural sector leads to the low quality of infrastructure services and threatens the stability of the economy as a whole, because it leads to additional non-productive expenses that in effect hold

back real GDP growth. Despite the constant lack of financial resources, the share of people employed in the infrastructural sector is growing: in the year 2000, the transportation and communications sector as well as gas, water, and electricity production and distribution sector, employed 11.7% of all workers, while in 2005 it was at a level of 13%. This increases the ineffectiveness of the use of resources allocated for the development of these sectors and leads to a decline in labor productivity. At the same time, every year the contribution of the infrastructural sector to GDP growth is declining. In 2000 electricity, gas and water production and distribution was at 6.8% of the GDP; however, in 2005, it went down to 3.9% and in 2009, it went further down to 3.5%. The transportation and communications sector contributed 13% of the GDP in 2000, 14.6% in 2004, and 11.3% in 2009.

The specialization of the economy of Ukraine in the extraction and initial processing of raw materials as well as its low technological level, make it very energy intensive, which creates the threat of the country becoming technologically dependent and an economically underdeveloped market for industrially developed countries.

A significant increase in gas prices made the problem of high energy intensity more acute; in 2008 the economy used 0.35 kg of fuel for the production of every UAH 1 of the GDP, in 2005 it was 0.521, in 2000 — 0.668 (Energy Intensity as a Resource of Innovational Development, 2009: 13).

In spite of a certain fall in energy intensity of the GDP, it remains too high and exceeds that in developed countries by 2.1-3.7 times, which makes it necessary to keep labor costs, working capital, and long-term capital investment low in order to keep the economy competitive. It is important to note that old equipment in the Ukrainian energy sector and lack of resource-saving technology can lead to the state being unable to provide the necessary energy levels for the population even if there is enough fuel. Unconventional and renewable energy resources are utilized inadequately — their share in the energy balance of the country is at mere 0.7%.

According to international statistics, the energy dependence of Ukraine in 2004-2005 was 62% (the share of import in total expenses on energy resources). This level is fairly close to that of developed countries: the average for EU-25 is 50%, in Germany it is 62%, in Austria — 64%, USA — 65%, Japan — 92%, France — 50%, Finland — 56% and Hungary-58% (The State of Economic Security…, 2007: 26), but the situation is further aggravated by the lack of geographic diversification of energy supply. The level of Ukrainian oil dependence on the Russian Federation is roughly 80% and gas dependence is more than 70%. Some imported gas comes from Central Asia, but its prices and supply are almost completely dependent on Russian companies. Moreover, Russian oil companies control

more than 85% of oil processing facilities in Ukraine, roughly 80% of the domestic market of fuel and lubricants, the total volume, supply and utilization of nuclear fuel as well as a major part of the equipment for the construction and repair of nuclear power stations.

In order to reduce the energy intensity of the GDP it is necessary to restructure the national economy, while stimulating development of the sectors that are close to the end consumer (first and foremost, services, trade, and communications) as well as high-tech industries. According to the Energy Strategy of Ukraine that was adopted in 2006, Ukraine has to halve its energy intensity by 2030 (down to 0.24 kg of fuel/ UAH 1) against 0.47 kg of fuel/UAH 1 in 2006. But this objective is criticized by experts, because it isn't supported by modern trends of investment dynamics in the national energy sector (V. Heyets, 2006).

A key role in the prolongation of the compensatory stage of economic development in Ukraine is played by the development trends in innovation activity, that in light of the positive dynamics of real GDP in 2000-2006, show a decline in the high technology used in domestic production (Table 3.5).

According to the estimates of the Ministry of Economy of Ukraine, GDP growth based on the implementation of new technology is just 0.7%, which is critically low (The State of Economic Security…, 2007: 21). Resource-intensive industries are prominent in Ukraine, while high-tech industries (aviation and space, pharmaceuticals, IT equipment, medical, precise and optical instruments, TV, radio and communications equipment) contribute a mere 3-5% of the GDP. The most progressive high-tech industries of the sixth technological level (nanotechnology, optoelectronics, biotechnology, genomics, photonics) are almost non-existent in Ukraine — their share in the GDP is less than 0.1% (the state of economic security: 28).

Innovations, unfortunately, didn't become the basis for the formation of a new innovation- and investment-based model of national economic development. The share of scientific research in the GDP fell from 1.38% in 1996 down to 1.14% in 2000 and 0.95% in 2009; funding of research work fell respectively. At the same time, developed countries spend 2.5-4% of their GDP on scientific work, while funding of 1% of the GDP and lower leads to the loss of economic significance of scientific work and the country becomes totally dependent on foreign technology.

The falling share of high-tech industries in the GDP led to the falling prestige of scientific work and, as a result, a decline in the number of scientists. In 1990 Ukraine had 313,000 scientific workers, but during the years of independence, their number decreased more than threefold to 92,400 in 2009. Even during the years of economic growth the negative trend persisted despite the growth of salaries.

Table 3.5

MAJOR INDICATORS OF SCIENCE AND INNOVATION DEVELOPMENT IN UKRAINE

Indicator	2000	2001	2002	2003	2004	2005	2006	2008	2009	2009 vs. 2000, growth index*
Share of scientific and technical works in the GDP, %	1.16	1.11	1.11	1.24	1.19	1.09	0.98	0.9	0.95	0.82
Number of researchers, '000	121	113	107	105	107	106	100	94.1	92.4	0.76
Share of enterprises that develop innovations, %	18	16.5	18	15.1	13.7	11.9	11.2	13	12.8	0.71
Share of enterprises that implement innovations, %	14.8	14.3	14.6	11.5	10	8.2	10	10.8	10.7	0.72
Implemented new technological processes, '000	1.4	1.42	1.14	1.48	1.73	1.81	1.15	1.6	1.9	1.36
Implemented innovational types of products, '000	15.3	19.5	22.8	7.4	4	3.2	2.4	2.4	2.7	0.18
Share of sold innovative products in total output, %	n/a	6.8	7	5.6	5.8	6.5	6.7	5.9	4.8	0.71
Additional:										
Real GDP growth, % against 1990	43.2	47.2	49.7	54.5	61.1	62.8	67.4	74.4	61.5	1.42

** Growth index is calculated in the following way: value of the indicator in 2009 devided by its value in 2000.*

Source: calculated based on data provided by the State Statistics Committee

Moreover, the share of companies focusing on innovations is decreasing in Ukraine. The share of companies working with innovations went down from 18% in 2000 to 12.8% in 2009, while the share of companies that implement innovations went down from 14.8% in 2000 to 10.7% in 2009. In the countries of the European Union, according to the data of the Directorate on Entrepreneurship of the Commission of the European Union (European Innovation Scoreboard (EIS), 2009: 57), on average, 30% of small and medium-sized enterprises work with innovations, while for big companies, innovations are a major part of business activity.

The constant decline in the technological level of production became the consequence of this innovation passivity in Ukraine. In 2000—2009 the number of innovative products fell 5.6 times, indicating the decline in innovation activity. In general, these trends resulted in a low share of innovative products in total industrial output (4.8% in 2009, i.e. 3-4 times lower than that in the countries of the EU). The share will keep defining the raw material specialization of the Ukrainian economy, price-based competitiveness and will keep it among the outsiders of global development.

Apart from the analyzed production factors that determine the low quality of economic development in Ukraine, supply factors were also important. Based on the Keynesian concept of the regulation of the economy, the main leverage of economic stability was consumer demand, the volume and effectiveness of which is defined by the level and nature of income distribution. Presently, Ukraine has a positive dynamics of disposable income, the nominal value of which grew 3.9 times in 2001-2009, while the the average salary rose from UAH 311 to UAH 1,906, i.e. 6.1 times (Table 3.6). The share of disposable income in the GDP grew during these years from 58% to 73.5% and the salary intensity of the GDP grew from 32.4% to 41.1%, which is considerably lower than that in developed coutries, where the value is at 60%. The lengthy social and economic crises of the mid-1990s, have caused a low level of real income among the population and a high level of their differentiation against standards of the developed world.

In Ukraine, the growth in the income of the population, driven by progressive reforms in taxation, social insurance and pension administration grew twice as fast as the economy. The real income of the population grew 10-20% annually, while real GDP grew by 5-10% annually. In 2001—2009 real disposable income grew 2.4 times, real salary increased 2.6 times, while real GDP grew 1.3 times.

The faster dynamics of income than that of output volumes has been observed since the period of the transformation crisis. In 1991—1999 real GDP shrank by 55.3%, while gross disposable income shrank by 67.1% and average salary shrank by 71.2%. In the years of economic growth the lost potential wasn't regained. As the growth of the disposable income, and

the one of the transfer payments particularly, was faster than the dynamics of industrial output, the level of disposable income came close to the pre-crisis level. In 2007 the real GDP lag behind the level of 1991 was at 20.7%, real salary lag was at 23%, while real disposable income lag was 8.4%. On the one hand, this creates a positive influence on the growth of productive demand in the country, increases internal investment potential and, thus, fosters the growth of production; on the other hand, given the unstable price situation in the country, it causes further inflation. High inflation rates characterized by the annual growth of consumer prices of 10% and more (Table 3.6), restrict the purchasing power of the population and had a negative influence on consumer demand.

Table 3.6

MAIN INDICATORS OF THE INCOME OF THE POPULATION OF UKRAINE

Indicator	2001	2004	2007	2009	2009 vs. 2001, growin index	2009 vs. 1991, growin index
Disposable income, % of previous year	122.8	130.4	127.3	104.1	3.9	223,883.5
Real disposable income, % of previous year	109.6	119.7	112.8	89.8	2.4	0.90
Real salary, % of previous year	107.4	113.9	115.0	87.5	2.4	0.78
Average monthly salary, UAH	311.1	590.0	1351.0	1,906.0	6.1	381,200.0
Real average monthly salary, % of last year	120.7	117.1	115.1	91.1	2.6	1.07
Share of disposable income in the GDP, %	58.3	61.4	65.9	73.5	1.3	1.05
Salary intensity of the GDP, %	32.4	33.1	36.0	41.1	1.3	0.90
Supplementary data:						
Real GDP, % of last year	109.2	112.1	107.7	84.9	1.3	0.67
Consumer price index, % of last year	112.0	109.0	112.8	115.9	2.3	354,716.4

Source: calculated based on the data provided by the State Statistics Committee

The problem of unproductive consumer demand in Ukraine is getting worse due to the uneven distribution of income among different social layers. In the years of social and economic reforms under conditions of spreading corruption, the «moonlight» economy and privileges to certain

citizens were getting worse, the share of poor people was increasing, a limited pool of people were accummulating wealth and the middle class was shrinking. The growth of income in recent years doesn't improve the problem of uneven income distribution, because people that have access to resources and their distibution benefit most from economic growth. The cumulative expenses of the 10% wealthiest people exceed the cumulative expenses of 10% poorest people by 5 times, which is by the refleated dynamic of the fund coefficient (Table 3.7).

Table 3.7

DISTRIBUTION OF THE POPULATION OF UKRAINE ACCORDING TO GROSS INCOME LEVEL

Indicator	2000	2003	2006	2009
Decile coefficient of differentiation, times	4.2	4.1	3.8	3.4
Decile fund coefficient, times	8.1	7.9	7.1	5.3
Concentration index (Gini index), times	0.318	0.320	0.302	0.257
People living below the poverty line, m	39.2	35.2	23.1	9.5
Share of population living below the poverty line, %	80.2	76.2	50.9	21.4
Supplementary data:				
Minimal monthly cost of living, UAH per capita	270.1	342.0	472.0	701.0

Source: State Statistics Committee of Ukraine collected via a sample inspection of living conditions. In 2007 the data is for quarter 1.

Based on the decile differentiation coefficient, the minimum level of expenses among the 10% of wealthiest people is 3.4 times higher than the maximum level of expenses among the 10% of poorest people. In general, the distribution of the population of Ukraine according to the level of average per capita and aggregate expenses deviate more than 0.25 % from the mean, as seen in the Gini index dynamics. In advanced Western countries it is at a level of 0.15-0.17; according to the methodology of the OECD, index values of more than 0.33-0.35 characterize a high level of social inequality. In Ukraine the index level grew from 0.36 in 1993 to 0.41 in 1996 (Y. Lebanova: 21), while in 2000-2009 the value went down from 0.318 to 0.257. The current value still points to the high level of inequality both inside the country and compared to advanced Western countries.

A positive consequence of the state policy on income and social protection regulation that was implemented in Ukraine, is the falling share of people living below the poverty line — in 2000 it was 39.2 m, while in

2006 it went down to 23.1 m. The share of people that cannot provide for their own basic needs decreased in 2000-2009 from 80.2% to 21.4%. However, the value still remains high and continues to determine low unproductive consumer demand.

Due to the high level of fixed asset depreciation, the low level of innovation in the economy and unproductive consumer demand in Ukraine, the level of labor productivity is very low. Each employee produced UAH 4,200 of the GDP in 1991, based on 1995 prices; while in 1997 it was already UAH 2,000. In 2007 labor productivity went up to UAH 4,000 due to an economic upturn.

«The Potential of Ukraine and its Fulfillment» research paper, placed Ukraine in 9th place out of a total of 46 countries, according to the growth of labor productivity, after a lengthy transformation crisis (The Potential of Ukraine and…, 2008: 17-18). Other countries that made it to the top 10 are Azerbaijan, Armenia, Moldova, Georgia, China, Belarus, Estonia, Latvia, and Lithuania. Despite the growth of labor productivity in Ukraine during the period of economic growth, its absolute value still remains one of the lowest in the world. The level of social labor productivity defined as GDP (purchasing power parity basis) per employee on average for the 50 countries studied by the International Institute of Management and Development in Lausanne (IMD) (Economy Statistics…) was at USD 40,900 in 2007, while in Ukraine it was at just USD 15,400[10]. The highest labor productivity was recorded in such countries as Luxemburg (USD 89,700, which is almost 6 times higher than that in Ukraine), USA and Ireland (over USD 74,000, which is 5 times that in Ukraine), Italy (USD 65,700), France, Denmark and Austria (USD 57,800-USD 59,400, which is almost 4 times that of Ukraine), Canada, the Netherlands, Finland, Germany, Spain, Sweden, Great Britain and Japan (USD 50,600- USD 57,000, i.e. 3.5 times that in Ukraine). Countries that a have lower value than Ukraine are Indonesia, India, the Philippines, Thailand, Venezuela, and Romania, where it was between USD 6,800 and USD 13,600 per employee.

The negative influence of the generally low labor productivity on economic growth in Ukraine was aggravated by the fact that during the years of independence the proportion of labor productivity growth rate and nominal and real salary was distorted. In developed countries nominal salary growth is always ahead of labor productivity growth, while real salary lags behind. During 15 years (1980—1995), labor productivity in these countries grew by 40-45 p.p. annually, nominal salary increased by 60-65 p.p., while real salary increased by 30 p.p. (A. Nikiforova, 2001: 106).

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[10] Calculated based on the GDP data (PPP basis) defined by the Central Intelligence Agency (https://www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html) and the data provided by the State Statistics Committee of Ukraine.

In 1991-2007 labor productivity in Ukraine shrank by 5%, while nominal salary grew 188,000 times, which was caused by high inflation rates, real salary shrank by 23% (Figure 3.5).

However, the positive dynamics of labor productivity was caused not so much by growth in the technical level of production but by loading the production capacity that had not been used during the crisis. The dismissal of employees lagged behind the decline in real production during the years of reforms. The highest rates of productivity decline were observed during the first three years of the transition period; the following five years brought stagnation — its level was at roughly 50% of that during the pre-reform period. Labor productivity growth started after the rapid decline in the number of employees in 1999 by 3.7 million, compared to 1997 (i.e. by 16%).

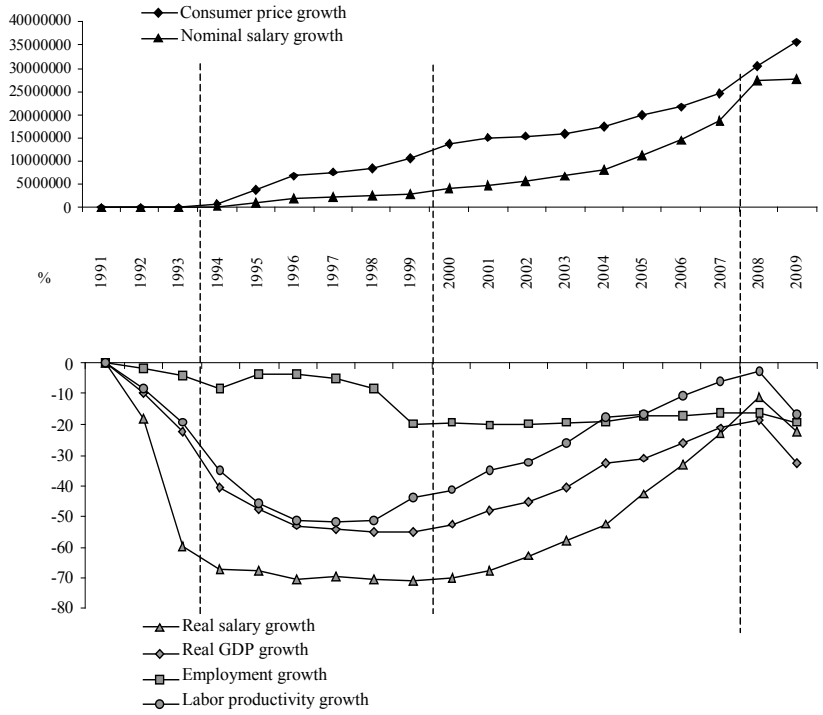


Figure 3.5. Dynamics of Labor Productivity, Nominal and Real Salary, Consumer Price Index, Employee Count and the Real GDP in Ukraine (% compared to 1991)

Calculated based on the data provided by the State Statistics Committee of Ukraine.

OECD research (The Potential of Ukraine and…, 2008: 18) shows that until 2003, the shrinking labor force caused by the active restructuring of Ukrainian companies had a favorable influence on labor productivity and the level of production capacity utilization. However, labor productivity growth driven by these factors is limited and over the long run, Ukraine will first and foremost, need to stimulate investment and innovation, improve the institutional and legislative components of the business environment and create conditions for the development of free competition.

3.2.4. Ukraine's Economic Development Goals

It is universally recognized that the government is responsible for justifying and achieving the goals of economic development. Therefore, we need to take into account the specific features of its activity these days, when on average, the composition of the government and the prime-minister change annually. Therefore, we cannot talk about long-term goals. Firstly, in the years of independence Ukrainian governments have been trying to «solve today the problems of today» (sometimes the problems of yesterday). Secondly, goal-setting in Ukraine is really non-transparent, concealed, has many understatements and considerable lack of clarity. Opinions on the goals of economic development vary greatly in state bodies — they range from the re-nationalization of all assets to their sale to foreign investors. Therefore, on the one hand, the government is trying not to declare its economic goals, keeping them to a minimum; on the other hand, it is trying to artificially boost its reporting.

This raises the question of the possibility of accurately defining the goals of economic development. We deem this possible if we build a matrix (bi-dimensional) model of goal-setting that is widely used for management decisions in companies. This means using two dimensions to justify the goals, e.g. time and structure (industry). The first dimension allows the definition of current, medium-term and long-term goals. The second dimension defines the goals on different levels: the economy as a whole, industry, region, etc.

The concept of this model is not new. However, it is not used adequately, due to a lack of coordination between the branches of power, separate agencies, divisions, or sometimes due to the fact that employees do not follow the directions of state agencies. In Table 3.8, we present the matrix model schematically while accounting for the classification of goals based on the level of management and time.

The model is theoretical and needs further details for practical use with vertical and horizontal components. For example, the industry-based

level of management needs to be broken down into industrial production, agriculture, construction, etc. For each industry, there will be more specific goals. For instance, steel production needs to be less material and energy intensive. The mechanical engineering industry needs greater focus on technology. Agriculture is to focus on the rational use of natural resources in the long-term.

When defining the goals of economic development, it is reasonable to use such a tool for making goals more specific, as SMART (R.L. Daft, 2000: 218-221). SMART means capturing all the basic characteristics of goals by meeting the following requirements:

— specific, both qualitatively and quantitatively;

— measurable, i.e. defining the goal based on certain criteria of economic development;

— achievable based on available resources;

— relevant, i.e. those that can be used as criteria of economic development;

— timed, i.e. having certain deadlines.

Table 3.8

MATRIX MODEL OF GOALS FOR THE ECONOMIC DEVELOPMENT OF UKRAINE

Management level	Goal nature		
	Immediate (1—3 years)	Medium-term (5—10 years)	Long-term (over 10 years)
Foreign	Export Import	Regional focus	International competitiveness
Nation-wide	Key indicators of social welfare	Strategic priorities	International competitiveness
Functional	Indicators of the functioning of separate areas (monetary, fiscal, etc.)	Strategic trends	Forecasts of indicators based on intergation processes
Sectoral	Indicators of the work of separate industries (sub-sectors)	Change in the sectoral structure	Position on global markets
Regional	Key development indicators of regions	Change in the economic structure of regions	Equal development of different regions

At the level of separate companies, requirements to management goals are easier to meet than at the state level. Company goals are mostly in revenue generation, which is measurable. Company management also has certain resources at hand — human, finacial, material, etc. However, the SMART approach is also reasonable at the state level for setting economic goals.

In the first place we need to define a timeframe for the goals. Based on a well-known classification, economic policy, and therefore goals, are developed and implemented in three main periods: short-term (1-3 years), medium-term (5-10 years), and long-term (over 10 years). O. Rosenfeld classifies goals in the following way — he links goals to economic growth rates: medium-term goals are linked to the economic security of the state, long-term goals are linked to the accession of Ukraine to the countries of the golden billion. Let's examine these approaches more closely.

We have already talked about short-term economic development goals in relation to the GDP. Other types of short-term goals (export, import, WTO accession, structural changes, etc.) are reviewed in other chapters of the book.

For medium-term macroeconomic goals, O. Rosenfeld suggests using a meaningful and consistent shift away from the dangerous levels of certain criteria. These are:

1. Critical level of consumption of imported food products. The safe level is 30%, while in Ukraine it is 30-40%. Therefore, Ukraine is strategically dependent on importers.
2. Critical level of export of manufacturing that is at least at 40% of the total export structure in developed countries. In Ukraine this indicator is at 20%. Exporters sell too many commodities to foreign markets and lose their value added potential.
3. The share of investment into the GDP must exceed the level of simple reproduction and foreign investment into the GDP. This indicator is very low in Ukraine.
4. The share of allocations to scientific research and the share of new products in the total output is also several times lower than the floor level.
5. The poverty threshold in Ukraine is 40%, while its critical level is 10%.

As we can see above, the indicators of mid-term macroeconomic goals are mainly related to international trade (three out of five), scientific work and public welfare. For the most part, they meet SMART requirements and, therefore, can be a subject of discussion in scientific and political circles. However, we feel that in terms of relevance, the list can be made longer by adding the requirement of lowering the energy

intensity of the GDP, improving production infrastructure, transformation of the economic structure for the growth of its technological level and value added, etc.

As for the long-term goals, we deem the idea of Ukraine's accession to the countries of the golden billion to be somewhat romanticized and do not meet the requirements of the SMART concept. The increasing international competitiveness of Ukraine looks more constructive. We think that Ukraine should look closely at Kazakhstan's aspirations to become one of 50 most developed countries. If Ukraine gains social stability, we can set even more ambitious goals. Social contract, justification and ways of achieving of all these goals need to be researched further.

3.2.5. Conclusions

The problem of the compensatory nature of economic growth and improving its quality can be solved through (1) changing the structure of production factors, while striving to improve the level of scientific and technical progress, investment into fixed assets, human capital, and innovations; (2) changing the stucture of industrial production, while focusing on high-tech industries with high value added; (3) changing the social structure of the economy in order to fight uneven income distribution and setting the fair distribution of the national income.

In order to shift away from a raw-material orientation towards competitiveness and industrial development based on a progressive restructurization towards high-tech production. However, based on the experience of Ukraine and other countries of the CIS (K. Khubiev, 2005), the economic policy and legislative base cannot provide the financial differentiation in favor of high-tech industries; on the contrary, it accelerates structural shifts towards the raw-material specialization of the economy, which increases its dependence on commodity prices on global markets.

3.3. Trends and Prospects for Quality Economic Growth in Ukraine

3.3.1. Theoretic background of quality economic growth research

This chapter looks at the theoretical background of quality economic growth. We analyze the role of innovations in providing high living standards and improving international competitiveness of most innovative countries. We look at innovation trends that have formed in Ukraine in

recent years. We also provide grounds for the necessity of transition to innovation-based economic growth.

Global economy development is cyclical, which can be seen in the time disproportions of economic growth and the uneven distribution of wealth among countries. Therefore, priority tasks in the economic policy of most countries are the creation and implementation of an effective innovation policy in order to achieve steady and quality economic growth, the endogenous stability of market conditions, the minimization of the impact of cyclicality and the improvement of international competitiveness.

Due to globalization, priorities of human development and high standards of living are the key indicators of development. No country has managed to achieve high competitiveness without radically improving living standards and effective investment in human capital. The main condition for improving the quality of economic growth is innovation development. Modern economic thought is based on the premise that the key factor of global transformation is technological production. The acceleration of innovation diffusion processes, transfer of new technology, innovation and technological cycles create good opportunities for the achievement of optimal relation between production, accumulation, and consumption as well as balance in the market conditions in the long-term.

Authors headed by American researcher G. Saks base their thoughts on the fact that in the global competitive environment only innovation can help achieve an international competitive edge. Therefore, it is particularly important to look at the Global Competitiveness Index compiled by the World Economic Forum (WEF). The methodology of WEF is based on the premise that only due to high technology and its implementation to create new products, can we achieve steady economic growth and improve public welfare. Therefore, countries with a high competitive position are at the highest innovative level of global competitiveness.

Research shows that one of the most important and common indicators of quality economic growth in developed countries, is the increase of the GDP per capita (Kuznets Simon, 1966: 1; Lucas Robert E., 1988: 3; World Economic…, 1996: 19). Therefore, the quality indicator of a global economic downturn (e.g. in 1982, 1991, 2001, 2008-2009), according to IMF methodology, is the negative growth of GDP per capita. Its dynamics in the short run is fairly close to classical business cycles, but over the long run it reflects the change of the quality indicators of life of the population, caused by such factors as innovations, effectiveness, and rational use of natural resources and fixed assets, as well as

conditions for the formation and renewal of human capital. However, in developing countries and countries in transition, GDP growth per capita, given the low base level against countries with a high competitive status, cannot be used as an indicator of quality economic changes. Growing living standards can be assessed based on the shrinking gap in these indicators (or reduction of macroeconomic disparities) compared to developed countries.

We feel that quality economic growth cannot be reflected in one indicator. It needs to be reflected in a system of indicators, because improved living standards are not only accompanied by an increase in the GDP per capita, but also human development indicators (i.e. labor productivity, education level, life expectancy, etc). Other links between GDP growth and the parameters of human development were reflected in the research by W. Esterly in «Life during Growth» (1999). The scientist proved that out of 81 indicators of human development that were analyzed, less than a tenth improve as a result of economic growth. The same portion gets worse, while the rest are not correlated with the GDP per capita dynamics (William Easterly, 1999). These results are another argument in favor of using more parameters for the assessment of quality economic growth.

Such researchers as W. Thomas, M. Dailami, A. Dareshwar, D. Kaufman, N. Kishore, R. Lopez, Y. Van suggest assessing the quality of economic growth in the context of human development indicators, i.e. based on such criteria as falling child mortality, literacy among adults, and growing life expectancy (The Quality of Economic Growth…, 2002: 258). An alternative approach was created as part of the UN Development Program. This methodology includes the calculation of the Human Development Potential Index (HDPI) based on three components: Gross National Income per capita (assessment of the standard of living), education (integral assessment of average and expected duration of studies), life expectancy (assessment of health and duration of life). In order to calculate the index of human development, we use the simple arithmetic of the components. Since 2010, UN experts also calculate a new version of the HDPI by including the criterion of how uneven the distribution of income in the country is — it is also called Human Development Potential Index corrected for Inequality (HDPII) that shows the level of HDPI that would be achieved by each member of society on condition of even wealth distribution (Report on Human Development 2010. Real Wealth of Nations: Ways of Human Development, 2010).

A new methodology is suggested by UNDP for the assessment of the spread of poverty based on the Multidimensional Poverty Index (MPI) that characterizes the share of the population that suffers from

deprivation, based on 3-10 weighted indicators of multidimensional poverty (deprivation is the inability of a person to realize their needs due to the fact that they have no access to material wealth and social resources, i.e. healthcare, education, housing, etc.). The Multidimensional Poverty Index reflects multiple deprivations in one household with regard to education, healthcare, and standard of living; it is calculated by a statistical review of a relevant sample of households. Ten poverty indicators are taken into account — they are nutrition, child mortality, duration of studies, education spread, fuel for cooking, water, electricity and other components of the poverty scale in the poverty index. Their sum makes up the Multidimenstional Poverty Index.

In general, we can conclude that quality economic growth and international competitiveness are complementary, because they both relfect the goals of higher living standards and innovation-based economic growth. On the other hand, the cyclicality of production resources development is accompanied by the pro-cyclical changes in national income and, as a result, causes the cyclicality of their economic growth and international competitiveness.

The importance of the innovation process was first summarized by Y. Schumpeter, who thought that the reason for economic development was the desire to get super-revenues generated by a temporary monopoly that is formed through innovation. Y. Schumpeter as one of the founders of the evolution theory thought that disproportionate weights are one of the main conditions of development. The researcher thought of innovations as a departure from routine and claimed that they lead to imbalance.

The close link between the innovation dynamics and the change in indicators of quality economic growth is proved in existing theoretical models of economic growth. The basic neoclassical model of economic growth that was developed by Nobel Prize winner in economics R. Solow (1987) claims that technological change is the key criterion of quality economic transformations. He claimed that the latter can be seen as the shift of the real demand curve in time that is not related to change in capital and labor use. According to the methodology of the statistical assessment of the contribution that these factors make to growth accounting, there is always a so-called Solow residual that reflects relative technological changes and shows average factor productivity (AFP). R. Solow calculates that extensive growth of labor productivity based on the criterion of increase in production output per man-hour accounts for only 12% of investment increase, while intensive growth, i.e. the basis in technological changes, accounts for roughly 87.5% (The Gold Book…, 2002: 3-4).

The technological process, new technological basis and staff potential determine approximately 28% of national income growth. Thus, there is a close link between economic cycles and quality economic growth. On the one hand, higher AFP indicators characterize increase in the potential of national economies to develop based on innovations; on the other hand, their growth is wave-like and has significant fluctuations, that in their turn, cause cyclicality.

Research, based on the three-factor neoclassical models of economic growth using significant statistical data, provided inconsistent conclusions, but invariably provided proof that innovation changes make a significant contribution (based on AFP) to economic growth. Leading economists, such as M. Abramovitz, R. Solow, J. Kendrick, and E. Denison assessed the contribution of AFP to the GDP growth of the USA at 48%, 49%, 40%, and 46% respectively (Abramovitz M., 1956, p.8; Solow Robert M., 1957, p. 315—316; Kendrick John W., 1961, p. 84—85; Denison Edward F., 1985: 87—113). However, the main drawback of the neoclassical theories is the assumption that innovation development depends on time and is not linked to processes outside the economy that is being modelled. These suggestions correspond to the research of the neoclassical and Keynesian economic theories that prove that average factor productivity can differ from the real contribution of technological changes. Researchers attribute the difference in economic growth indicators to the influence of human capital.

During the last decade a number of new theoretical models that aim to justify the endogenous nature of technological changes, that induce innovation-driven economic growth, have been published. According to these theories, technological changes are the result of research and development conducted by economic agents that aim to maximize their revenue over a long period of time. These models are different from neoclassical ones, in that their production function in one form or another, has a new component, human capital that characterizes scientific knowledge and hands-on experience accumulated in the process of studying and production. In his work «The Mechanism of Economic Development» (1988), Nobel Prize winner R. Lucas claims that human capital is a separate factor of economic growth, its accumulation and efficient use are the necessary conditions for improvement in living standards. Thus, investment in human capital is an important factor of radical innovation changes in the world economy. Such economists as R. Nelson, E. Phelps, P. Romer, P. Aghion, and P. Howitt also prove in their works that human capital is the decisive factor of radical innovation changes and technological innovations (Nelson R., Phelps E.; Romer P.;

Aghion P., Howitt P., 1998). An econometric analysis of the models of economic dynamics with regard to the equillibrium trajectory of economic growth, whereby the consumption level, new expertise, production output and capital expenses grow exponentially at a constant rate, allowed American researcher P. Romer to mathematically prove the hypothesis that economic growth rates depend on investment in human capital.

World Bank and other international organizations research major features of the economy of knowledge and the factors that accelerate its development. The World Bank report, «Knowledge for Development», focuses on the following components of the economy of knowledge: information infrastructure, institutions, innovations and education, and concludes that countries can accelerate economic growth rates by improving the education level, transparency in international trade, and telecommunications infrastructure. A high level of education, openness of the economy, and developed information infrastructure bring GDP per capita growth of roughly 4% annually. However, it is obvious that education without responsiveness to innovation and knowledge accumulation does not bring economic growth. It is clear that the post-industrial society is a society of knowledge where public welfare is achieved through knowledge gained through uninterrupted access to information and ability to work with it. Therefore, the system of training for qualified staff becomes strategically important and a tool for achieving high international competitiveness.

It is also worth noting the results of the scientific research of the role of international trade, conducted by G. Grosman (Princeton University) and E. Helpman (University of Tel-Aviv). Their model takes into account the possibility of capital overflow for the funding of research and development (R&D) and stipulateshat if certain conditions are met, the formation of transnational corporations and the country's economy drawing closer to the equilibrium trajectory of growth. In general, the theoretical conclusions of researchers with regard to endogenous technological development are proven in practice, through large-scale programs of international scientific cooperation and the spread of new organizational forms of technological cooperation.

Success stories of the key innovators among countries prove that a larger share of research is done in the private sector, first and foremost, by large corporations that organize and fund research, both fundamental and applied, development of large-scale high-tech projects, commercialization of new ideas through the organization of scientific centers in the countries of the world. At the same time, a relative reduction in the share of state R&D expenses is not evidence of the

decreasing role of the state in innovations. Increasing state regulation accompanied by reduction in its direct participation in R&D is a logical process, a general trend that is characteristic of economies of all developed countries of the world. It is caused first and foremost, by the improvement in financial mechanisms, systems of organization and management of the innovation process, the creation of effective national innovation systems as a «structural and functional profile of the nation that serves as the basis for interconnection between technological innovation and economic activity» (as defined by A. Lundval, K. Freeman, and Y. Park) (Yong-Tae Park. A, 1999: 52). Moreover, development of national innovation systems and their integration into the global innovation system, create the stock of the technological might of the country that embodies an innovative competitive edge, fosters quality economic development and eliminates the impact of cyclicality.

Most economists studying scientific progress, think that growth in the funding of research is a positive factor of economic growth. American researcher F. Sherer defined the «natural law of technological progress» in such a way that R&D expenses in every country are to grow at a higher rate than does production of the GNP. Optimal funding of research is 3% of the GNP. Otherwise, it is impossible to compete in innovation and provide high standards of living by fulfilling national scientific potential.

3.3.2. Modernization Directions of the Economy of Ukraine

In order to further analyze long-term changes in quality economic growth, we have researched the dynamics of human development indicators in developed countries (Canada, France, Germany, Italy, Japan, Great Britain, and the USA) and in Ukraine since 1870. We took into account such indicators as GDP per capita (PPP basis), the level of education (percent of adult population that has a university degree and level of education among the population) and average life expectancy (Figure 3.6).

In order to assess long-term trends of quality economic growth, we calculated the main parameters of human development indicator dynamics, i.e. their levels relative to a chosen comparison base (indicator values in 1870) and chain growth rates. As a method of eliminating the short-term fluctuation of component indicators, mainly GDP per capita, statistical data was organized in such a way that their change reflected just the long-term growth trend and neutralized short-term declines.

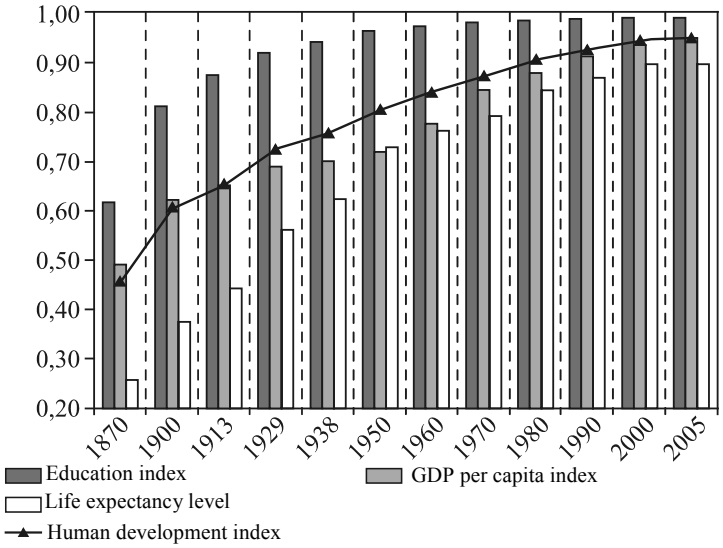


Figure 3.6. The Dynamics of Human Development Indicators in Developed Countries (average values), 1870-2005

The accumulation of quality economic growth in developed countries starting from 1870 is first and foremost related to the industrial revolution that along with the radical innovation-based changes in the economy, caused an overall increase in the living standards (proven by the increase in life expectancy and education level). An analysis of the dynamics of relevant indicators in these countries since 1870 allows us to make the conclusion that major growth in human development indicators was recorded n 1870-1950. When analyzing GDP per capita in the USA in more detail, we can single out two complete cycles in its long-term dynamics (1870-1938 and 1939-2009), the lowest points of which are the consequences of the Great Depression of 1929-1933 and the modern financial crisis. As of 1870, GDP per capita in the USA was at USD 2,500; in 2009, it was USD 45,900. Thus the intensive growth of GDP per capita, education level, and life expectancy in the researched period, despite temporary economic downturns, reflects a significant increase in living standards in the countries with the highest competitive status and an increase in their international competitiveness.

We need to underline that human development in Ukraine declined significantly in the first half of the 1990s. In 1990 the HDPI, which indicates human development in Ukraine during the Soviet era was at 0.690; over the next two decades Ukraine significantly lost by moving

from 45 down to 69, i.e. consistently losing its position until 2005. Despite certain statistical discrepancies in such comparisons due to different numbers of studied countries or change in HDPI methodology, Ukraine is very much behind most countries according to the standard of living, although Ukraine holds leading positions in the education level and education spread as well as significant research potential. National standards of living have been deteriorating so fast during the period of independence, that they pose a significant threat to the social and economic security of the country.

According to the latest data, in 2010 the Human Development Potential Index is at a level of 0.710, which places Ukraine 69th out of 169 researched countries. When comparing the index values in 1990 and 2010, we see that its growth is 0.02 points or 2.9%. At the same time, Hungary saw a 16.3% increase (36th in the ranking), Poland saw 16.4% growth (41), and Russia experienced 3.9% growth (65). Ukraine's ranking according to this indicator in 2005-2010 went down by three positions. At the same time, the Human Development Potential Index corrected for Inequality (HDPII) is at the lowest point, 0.652, which is 8.1% lower than the basic level. Thus, the uneven income distribution in Ukraine lowers the standards of living in our country, although its relative value is not significant.

Despite the positive economic dynamics in Ukraine over the last 10 years, the productivity of the Ukrainian economy remains very low, which is proved by the Gross National Income per capita: as of 2008, it was at USD 6,535, while in the Czech Republic it was at USD 22,678, in Slovakia — USD 21,658, in Hungary — USD 17,472, in Poland — USD 17,803, in Russia — USD 15,258, in Belarus — USD 12,926, in Romania — USD 12,844 and in Bulgaria — USD 11,139. In fact, according to GNI per capita, Ukraine is a regional outsider in the CEE. Moreover, Ukraine is lagging behind such developing countries as Botswana (USD 13,204), Gabon (USD 12,747), El Salvador (USD 6,498) and others.

According to GNI per capita, Ukraine is also lagging behind the key innovators the GDP per capita of which is 4-5 times that of Ukraine. These countries have totally different standards of living and opportunities of social and economic growth. Moreover, when analyzing the long-term dynamics of the national GDP, we need to clarify that its total volume and share per capita are still not at the pre-crisis level of 1990. Obviously, low income among the population of Ukraine, fist and foremost, as compared to developed countries and countries with a medium level of income, affects other components of human development, health and poverty in particular.

According to life expectancy our country is lagging behind 23 countries, where it is at a level of more than 80 years, Ukraine ranks 113

in the global ranking and the average life expectancy at birth is 68.6 years. Let's compare Ukraine to other countries: an average Japanese lives for 83.2 years, average Swiss — 82.2 years, Frenchman — 81.6, Czech — 76.9, Pole — 76. The permanent deterioration of the health of Ukrainians, high mortality of the employable population, falling life expectancy, and uneven access to healthcare are primarily caused by the significant pitfalls in the national healthcare system.

Traditionally, Ukraine has high literacy rates and spread of education. In general, our country ranks 21 according to education level. Ukraine has a high share of the population with university and associate degrees. At the same time, the Ukrainian education system needs to be closer linked to practical work and better state funding as well as a more effective development strategy for world-class universities.

The poverty level has significant effect on the quality economic growth in Ukraine and the formation of adequate social standards. Based on the results of research conducted by the UNDP on multi-dimensional poverty, Ukraine scored 0.008. This relatively low level means that on average, Ukrainians feel deprivation at 0.8%. In other words, less than 1% of physiological and social needs of Ukrainians are not met (according to the methodology of the assessment of weighted indicators of multidimensional poverty by the UNDP). Let's compare, Ukrainian results to Latvia (0.001), Hungary (0.003), Russia (0.005), Croatia (0.007), Ethiopia (0.582), and Nigeria (0.642); the methodology hasn't been applied to developed countries.

In terms of components of the multidimensional poverty index, the Ukrainian poverty index is at 2.2% (that is the share of Ukrainians that live below the poverty line) and the poverty scale is at 35.7% (that is the share of the weighted component indicators by which Ukrainians feel deprived). According to another absolute indicator of poverty spread (the share of people living on less than USD 2), the share of poor people is less than 2%. Thus, in the system of human development potential indicators by UNDP, among the research countries, Ukraine has a moderate level of poverty that doesn't exceed critical levels.

At the same time, if we take the income of the population (actual expenses) against guaranteed social standards (poverty line, minimal wage) and the share of expenses spent on groceries as the criteria of poverty, the poverty situation in Ukraine looks much less optimistic than the assessment of the UNDP. Research conducted by the Institute of Demographics and Social Research of the National Academy of Sciences of Ukraine that was done based on the data released by the State Statistics Committee shows that poverty level in our country was 26% in 2009. Roughly 11.7 m citizens (4 m households) live in poverty. The national

poverty line in 2009 was UAH 869, which is very low; this proves the absolute inability of the majority of Ukrainians to have a high standard of living. This is proven by the fact that the biggest share of expenses goes to groceries — in 2009 their share was 52%. The critical indicator of the share of such expenses internationally is 60%. It is clear that when the national floor poverty level is kept too low, its real level is underrated.

This conclusion is also proven by our calculation of the relationship between the average salary in the country and the poverty line in 2000-2009. The relationship of the average monthly salary to the poverty line, according to the data released by the State Statistics Committee, in 2009 was 2.19 (1906/869), in 2004 — 1.53 (590/386.73), in 2002 — 1.03 (376/365), in 2000 — 0.80 (230/287.63). This means that as the income of Ukrainians is growing, there is no adequate correction of the minimum wage. Therefore, the current level of the relationship is too low, while the positive economic change (GDP growth rates) in our country over the last decade was not adequately reflected in the indicators of the basic social standard (living wage) and minimum wage.

In recent years GDP growth in Ukraine was achieved through the increase in output levels in the traditional sectors of the economy, mainly manufacturing. Traditional indicators of economic growth are based primarily on resource mobilization, savings accumulated over the a lengthy period of economic downturn in the past almost dried out and no adequate structural changes of the economic system that could stimulate the investment- and innovation-based recovery of the economy took place. This situation is threatening for the economic security of the country and significantly increases the risks of permanent economic stagnation or, taking into account inflation processes, stagflation. Another proof of our conclusions is the ineffective anti-crisis system of measures taken during the current financial crisis.

The Organization for Economic Cooperation and Development (OECD) made similar conclusions in their report, «Ukraine. Economic Assessment» (2007). OECD analysts prove that the recent fast economic growth of the national economy was based on transient indicators — these are improved trade conditions, relatively low energy prices and idle production capacities. In order to support such economic dynamics over the medium and long-term, Ukraine will need to achieve independent economic growth driven by investment and innovation. Therefore, one of the main challenges that our country faces is the improvement of business mechanisms, i.e. improved business conditions, commodity market reforms in terms of entrance and exit and increased competition (Economic research by OECD…, 2007). Apart from capital accumulation and effective resource distribution, we will also need to maintain high

levels of growth in the cumulative productivity of production factors through intensified innovation activity and the simultaneous effective use of traditional factors. Therefore, it is strategically important for the national economy to conduct effective economic reforms aimed at system modernization and increased international competitiveness.

We thus need to say that Ukraine ranks 181 out of 183 countries that have been studied in terms of taxation system simplicity in the Paying Taxes 2010 ranking (prepared by the World Bank and audit company PriceWaterhouseCoopers). Only Venezuela and Belarus ranked lower. In Ukraine, there are 147 tax payments made annually (in Poland, there are 40, in Russia — 11, Great Britain — 8); 736 hours per year are spent paying taxes (Uzbekistan — 356, Lithuania — 166, the United Arab Emirates — 12). The full tax rate in Ukraine (% of income) is 57.2% (the USA — 46.3%, Great Britain — 35.9%, Poland — 42.5%) (based on Doing Business 2010. Paying Taxes). Auditors from Price Waterhouse Coopers think that doing honest business in Ukraine is too burdensome. Only well thought-through reforms can save Ukrainian business, according to the authors of the report. They also note that tax procedure simplification is a global trend — in recent years, more than seventy countries have conducted such reforms.

Polish economist H. Kolodka says that the rate of reduction of state expenses in the GDP of the country is an important indicator of the effectiveness of reforms in post-socialist countries. The falling share of state expenses in the social product is deemed to be a sign of ineffective reforms. According to the data released by the State Statistics Committee, in 1994-2002, the share of state expenses (consolidated budget of Ukraine) in the GDP was declining (1994 — 52.4%, 1995 — 44.6%, 2002 — 26.7%). In 2003 the share stabilized at 28.4% and has been growing ever since, although at modest rates. As of 2005, the coefficient of state expenses to the GDP was at 25.59% (state budget) and 32.16% (consolidated budget), in 2009 — 26.5% and 33.92% respectively (Table 3.9).

There are no significant changes in the structure of the GDP apart from the significant growth of the absolute volume and the share of state expenses. R&D expenses remain extremely low and have a tendency towards further decline (in 1996 they were at 1.38% of the GDP, in 2008 — at 0.34%). Education expenses remain stable (1991 — 6.2% of the consolidated budget, 2000-2007 — 5.3%; 2005– 2.25% of the state budget, 2009 — 2.62%), so do healthcare expenses (2000-2007 — 4.0% of the consolidated budget; 2005 — 0.79% of the state budget, 2009 — 0.82%). Thus, despite the gradual revival of the pre-crisis level of state expenses, there is no change in their structure in Ukraine. Even though relative shares of R&D expenses, education and healthcare remained

stable, their absolute volume at current exchange rates (i.e. purchasing power parity basis) is dozen of times less than that in the countries that are leading innovators.

Table 3.9

EXECUTION OF THE STATE AND CONSOLIDATED BUDGETS OF UKRAINE, ACCORDING TO EXPENSES

Expense categories of the state budget	2002		2005		2009	
	UAH m	% of GDP	UAH m	% of GDP	UAH m	% of GDP
General state functions	6,872	3.04	11,981	2.71	24,868	2.72
Defense	3,536	1.57	6,041	1.37	9,655	1.06
Civil order, security and courts	4,677	2.07	10,142	2.30	24,164	2.64
Economic activity	5,581	2.47	14,041	3.18	33,234	3.63
Environmental protection	528	0.23	981	0.22	1,824	0.20
Utilities	51	0.02	110	0.02	248	0.03
Healthcare	1,582	0.70	3,508	0.79	7,531	0.82
Spiritual and physical development	425	0.19	1,274	0.29	3,216	0.35
Education	4,989	2.21	9,933	2.25	23,925	2.62
Social security	7,273	3.22	31,604	7.16	51,512	5.63
Funds going to lower-level budgets	8,818	3.91	23,361	5.29	62,180	6.80
TOTAL expenses in the state budget	**44,348**	**19.64**	**112,976**	**25.59**	**242,357**	**26.50**
TOTAL expenses in the consolidated budget	**60,319**	**26.71**	**141,990**	**32.16**	**310,223**	**33.92**

Compiled by the authors based in the official data of the State Statistics Committee of Ukraine, Ministry of Finance of Ukraine, National Bank of Ukraine and the Accounting Chamber of Ukraine.

It is important to stress that the planned expenses for education and practical studies in the consolidated budget of the European Union as of 2010 are at EUR 1.1 bln, i.e. 4.4% higher than that in the previous period. Education expenses in the EU account for 0.8% of the total volume of the

forecast budget expenses. The highest expenses (Article 15.02 of the General Budget of the European Union) in the 2010 budget of the EU among education and practical studies expenses are used for life-long education programs (EUR 982.313m, or 85.24% of all expenses). Top priority is given to the funding of secondary and university education (*Erasmus Mundus*) and specialized education projects carried out by relevant European institutions. The expected growth in education expenses in the European Union in the current period proves that investment in human capital is given priority despite the negative impact of the global financial crisis on the budget indicators of many European economies.

The national budgets of Western European countries also include significant education expenditures. Germany holds investment in education and research as their key priority. According to the data released by the Federal Ministry of Education and Research of Germany, in 2010 the government of the country allocated EUR 10.9 b to these sectors, i.e. 6.5% more that in 2009. University education is expected to receive EUR 509m in funding, which is 33% more than in the previous period and these funds will be used to create new student places at universities. Funding of life-long education programs will increase by 44% and reach EUR 201m. The funding of projects aimed at modernization and the improvement of professional practical studies will increase by at least 71% and reach an unprecedented level of EUR 193 m. Thus, according to the social and economic indicators of living standards that are the necessary prerequisite for an improvement in international competitiveness, Ukraine is significantly behind developed countries.

It is universally known that innovation-driven growth requires spending at least 2% of the GDP on research. Countries that have achieved good economic growth rates through innovation meet this requirement. During the global financial crisis they didn't cut investment in innovation — they increased it instead. This is shown in the strategies of the key innovators for 2008-2009 as well as in the strategic development plan of the EU Europe 2020.

Unsatisfactory conditions for business activity are currently the main obstacle to the growth of the level and effectiveness of investment and innovation activity. Businesses face a very high level of legal, regulatory and political uncertainty, which makes long-term projects very risky. Uncertainty and unpredictability are caused in many cases by pervasive corruption among state officials, which makes property rights in the country unenforceable. The improvement of public administration and rule of law are the absolutely critical priorities of the economic mechanism for the modernization of Ukraine. A consistent and broad policy of deregulation could do much to solve these problems, because excessive and

often inconsistent regulation often creates opportunities for bureaucratic chaos. At the same time, OECD analysts say that in many sectors, Ukraine needs better regulation rather than less regulation. This means eliminating the numerous blanks and controversies in legislation and norms.

The 21st century is seeing a rapid change of technological production. The business structure, economic growth, the system of values and motivation as well as criteria of social progress are changing their qualitative characteristics. For the immediate and long run, the maximization of the innovation factor is becoming a key condition for the steady development of modern economic systems. Therefore, government economic policy is based on the prospects and opportunities of innovation potential growth, its ability to achieve and keep a good competitive position on the global market; stable market conditions and growing qualitative indicators of life do not receive that much attention.

During the Soviet era, Ukrainian scientific and research organizations were important in labor distribution. The main macro-proportions of this complex were mainly maintained by the size of the Ukrainian industrial potential and its contribution to the social product of the Soviet Union. At the same time, in terms of some indicators (e.g. saturation of the economy with university graduates) Ukraine was different from USSR averages (I. Yegorov, 1993). Most scientific and research organizations of Ukraine, including leading institutes of the Academy of Sciences, were highly technology-focused. If we look at data on patents received abroad, in their research S. Radosevich and D. Kutlaca found that the Y.O. Paton Institute for Electric Welding, ranked 7 among organizations from the socialist countries that had the greatest number of patents in the USA (54 patents in 1969-1994). Another Soviet scientific organization that made it to the list is the Russian Institute for Mining of the Siberian Department of the Academy of Sciences of the USSR (No. 17, 29 patents) (Radosevic S., Kutlaca D., 1998: 47). Since the 1990s, the technological potential of Ukraine has gone significantly downhill.

Researchers of the National Academy of Sciences of Ukraine found that businesses of the third technological mode produce 58% of total production output, while their share in investment is 75%. At the same time, businesses of the fourth technological mode produce 38% of the output and account for 20% of the investment (V. M. Heyets, 2003: 16). The investment structure of the economy of Ukraine doesn't favor progressive changes but rather hinders them. The development of businesses of the fourth technological mode would help the situation.

Ever since independence, Ukraine has been trying to introduce new mechanisms to stimulate innovation-driven growth, i.e. the introduction of a special tax aimed at filling the state innovation fund that would be used to

finance innovation programs, many state programs of support and development, activities of the Ukrainian State Innovation Company, economic stimuli (privileges) in the form of special economic zones, territories of priority development, techno-parks, etc. However, all these measures did not bring any results, either in terms of innovation volume increase, or in terms of its improved quality. Overall, the lack of success in the state innovation policy as well as in most areas of public management, is largely attributable to the institutional inability of the state to consistently and effectively develop and implement public policy. This is proved by the low absolute and relative indicators of innovation activity and the international competitiveness of Ukraine in global rankings.

When analyzing the current condition of Ukraine's international competitiveness, including innovation, we need to look at the indicators analyzed by the World Economic Forum. This methodology deserves attention, because it takes into account the ranking assessment of the innovation factor that allows the determination of the factors that stimulate innovation-driven growth in the country, i.e. innovation potential, number of scientific and research organizations, R&D expenses, cooperation of universities and research institutes, state support of high-tech developments, number of scientists and researchers, number of registered patents, and intellectual property right protection. In the Global Competitiveness Index 2010—2011, Ukraine ranked 89th out of 139 countries and lost 7 positions compared to the previous year (or five positions if we look at countries analyzed the year before) and, thus, came after Poland (39), Russia (69), and Kazakhstan (72). Unfortunately, the competitive status of the country is in decline.

Ukraine's worst result — 134 — is in the quality of institutions category. The following aspects pose problems for our country: business ethics (130), property right protection (135), including protection of the rights of minority shareholders (138), transparency of state decision making (131), effectiveness of auditing and accounting standards (128), independence of the court system (111), effectiveness of state budget use (131), intellectual property protection (113), trust towards politicians (122), state regulation burden (104), lobbying of state decisions (127), and organized crime (116).

In terms of the innovation factor, Ukraine ranks 63 (3.1 points). Such a low result is caused by the low assessment of component innovation sub-factors, including state support in purchases of high-tech products (112), the number of scientists and engineers (53), R&D expenses (69), research cooperation between universities and businesses (72), number of research institutions (60) and the number of registered socially beneficial patents (64). Given the low ranking position, these sub-factors have been

classified as competitive disadvantages by WEF analysts. The high innovation potential of Ukraine is seen as a competitive advantage (37). Thus, according to innovation activity, high-tech production, science and research funding, and infrastructure of innovation business, Ukraine is lagging behind leading countries. There is a significant discrepancy between the scientific potential of the country and the total productivity of the national economy, which is caused by the low effectiveness of the national innovation system. According to the criteria of the Lisbon Strategy, i.e. innovation potential, WEF experts gave Ukraine the advantage over the countries of Central and Eastern Europe.

Growth in the competitiveness of the Ukrainian economy will depend on how actively regions will implement innovation policy and stimulate innovation activity. Despite significant theoretical achievements in innovative research in the regions, there are still many problems to be solved. Various draft legislation documents have repeatedly declared the improved competitiveness of Ukrainian regions, but this indicator is not reflected in the national statistics, which makes the assessment of the effectiveness of state measures highly problematic. Moreover, indicators of innovation capacity do not meet the world methodology and new indicators of innovation productivity according to the competitiveness determinants of the region, i.e. human resources, knowledge generation, its transfer and use, as well as innovations.

According to indicators of the competitiveness of Ukrainian regions according to EU methodology, regions of high competitive status have been selected. These are the city of Kyiv, the Donetsk, Odesa, and Ivano-Frankivsk oblasts (regions) as well as the city of Sevastopol. However, the labor productivity levels in these regions are about one third of labor productivity in the countries seen as outsiders in Europe.

3.3.3. Conclusions

This analysis proves that innovation-based growth is the only alternative for Ukraine, since there is no other way to achieve the growth of international competitiveness and quality economic growth. This requires the accelerated development of the national innovation system, based on long-term technological forecasts, the greater role of the state in the commercialization of basic innovations, the stimulation of innovation activity in order to build up the micro- and macroeconomic competitiveness of the country.

It is necessary to create and pass a long-term strategy of Ukraine up to 2020 as soon as possible, which would create conditions for an accelerated transition to innovation-driven economic development. The national innovation system should also be closely linked to the regional

innovation policy and work at both regional and industry-specific levels within a single management system for the commercialization of intellectual activity result processes.

According to the latest estimates of Ukrainian experts, the main priorities for the innovation-driven development of Ukrainian industry and, therefore, the buildup of the economic potential of the industrial sector are the most effective use of existing intellectual potential for the generation of scientific ideas and their implementation, increased output levels of high-tech products with high value added, that is competitive on the global market, the revival of the industrial potential based in innovations, progressive structural changes in the economy, effective transformation in order to increase independence, productivity, competitiveness and social focus and the increased motivational factor of taxes for the development of national production while reforming the tax system of Ukraine (Activation of the Innovation…, 2007: 71-72).

In order to follow these directions of innovation development, we need to implement changes of the business mechanism as a whole, including the modernization of the resource base, development of human capital, improvement of the business management system, creation of a strong system for funding innovation activity using all sources of funding. These can be private and public venture funds, funds of business entities and individuals and foreign investment; we feel that the emission resource of the central bank is the most promising source. The prerequisite for innovation growth is increased funding of research of no less than 3-4% of the GDP.

The following directions of innovation activity in Ukraine should take priority over others: information technology, nanotechnology, and biotechnology (especially in the agricultural sector). Moreover, it is necessary to force executive branches at all levels to create conditions that are most favorable for work aimed at the realization of work in priority fields and their focus on financial, economic and intellectual resources. Ukraine already has some of the necessary prerequisites, such as renowned Ukrainian scientific schools and unique technologies that through adequate stimulation can develop high-tech production of the highest standard. It is only through the full-scale development of the national innovation system in Ukraine that we can create real prerequisites for the radical renewal of the technological level of production, increased labor productivity and, as a result, the international competitiveness of the country. At the same time, the continued rejection of an effective innovation policy can lead to the conservation of accumulated characteristics of structural degradation, since the stabilization growth of recent years is not sufficient evidence of the positive long-term prospects of the Ukrainian economy in the international economic arena.

3.4. Modern Trade Policy of Ukraine

3.4.1. Introduction

There are four main stages in the formation of the current trade regime of Ukraine: autonomous creation of trade policy (1991—1994), initial liberalization (1994—1999), active liberalization based on WTO principles (1999—2008), the trade policy of a full WTO member (since May 2008).

At the first stage, the foreign trade regime mostly reflected the decline of the planned economy and was characterized by the full use of restricting measures (quotas, licensing, and state trade). Moreover, the domestic market was dominated by price control limitations and foreign exchange operations.

The world economy saw dynamic growth of trade and production in the 1990s, but Ukraine experienced significant troubles building up the state and dealing with the national economic crisis. The situation was further aggravated by the fact that old leverages of economic regulation of the command economy proved ineffective but there was no experience in using other leverages. In the first place, this was true for foreign trade and the protection of national economic interests, because there was a monopoly on foreign trade in the Soviet Union, starting from 1973 other forms of foreign economic activity were also monopolized. Therefore, the regulation system for foreign economic activity, and foreign trade in particular, was created based on the models of countries with different levels of economic development, economic structure and national economic priorities; it was implemented through trial and error.

In the early 90s, the tariff policy had a negative impact on the formation of the domestic market as well as further social and economic development. A single customs duty was introduced in January 1993, with a rate of 0-10%, depending on the type of product. Very few product types had 15-30% duty, while alcohol and tobacco had a 50% duty. Average weighted duty was much lower than that in most developed countries. At the same time, there was very tight control over products that could be exported by business entities. Almost 70% of exports from Ukraine at year-end 1993 was limited by legislation. Miscalculations in foreign trade policy led to the loss of traditional markets in the countries of Eastern Europe, Asia and Africa. Experts claim that the decline in output in 1991—1994 of more than 35%, was caused by mistakes in foreign trade policy.

The start of the next stage of development of the trade policy was marked by a package of reforms in 1994; these reforms included a set of important measures for macroeconomic stabilization, liberalization and privatization. The implementation of this reform complex, trade policy

measures in particular, was inconsistent — it had significant fluctuations from administrative regulation to the intense liberalization of the domestic market. Having applied to the WTO in 1993, Ukraine started negotiations on accession to the system of multilateral agreements. However, this process was not harmonized with the necessary changes in the legislative base, and trade policy remained autonomous and mostly protectionist.

During the third period the government of Ukraine started important actions on the liberalization of foreign trade and the broadening of opportunities for integration into the world economic system. Strategic priorities defining the direction of improving the trade policy of Ukraine were WTO accession and EU integration.

Starting in 1999, Ukraine activated the negotiation process on accession to the World Trade Organization. This stage saw the active liberalization of foreign trade according to the rules of GATT, GATS, and TRIPS; a legislative base was also adapted to the requirements. This allowed Ukraine to start operating, based on WTO principles 2-3 years before accession, but Ukraine didn't yet have the equivalent access to other markets and equal status during anti-dumping investigations.

According to Article XII of the Marrakesh Agreement on WTO establishment, WTO accession took place on conditions agreed upon by the government of Ukraine and the WTO. There were 17 official and many unofficial meetings of the Working Group on Ukraine's accession to the WTO.

At the last meeting on 25 January, 20 members of the Working Group approved the accession package for Ukraine: Working Group Report, Schedule of Obligations on Access to the Market of Goods and Services and the draft decision of the Council General and Accession Record. On 5 February 2008, the accession package was reviewed and approved by the WTO Council General. The President of Ukraine Victor Yushchenko and Director General of the World Trade Organization Pascal Lamy signed the Protocol of Accession to the WTO.

The Verkhovna Rada (Parliament) approved Law No. 250-VI «On Ratification of the Protocol on Ukraine's Accession to the World Trade Organization» on 10 April 2008. On 16 April 2008, the President of Ukraine signed this law and on the same day, the Ministry of Foreign Affairs provided notification thereof to the WTO. This day was the start of the 30-day countdown, the official term that has to pass from notification to membership; on 16 May 2008 Ukraine was the 152nd country to become an official member of the World Trade Organization.

Thus, stage four began in May 2008, i.e the implementation of Ukraine's trade policy as a full member of the WTO. The current trade regime of Ukraine is fairly liberal, which is largely the result of the completion of a long and complicated process of WTO accession.

3.4.2. Adaptation of the Trade Policy of Ukraine to WTO Requirements

Ukraine was signing agreements on trade relations that stipulate most favored treatment with many countries starting from 1992. These countries are Algiers, Argentina, Australia, Brazil, Vietnam, Canada, China, Croatia, Cuba, Egypt, Macedonia, Guinea, India, Indonesia, Iran, Israel, Japan, Republic of Korea, Democratic Republic of Korea, Kyrgyzstan, Lebanon, Libya, Montenegro, Moldova, Mongolia, Norway, Switzerland, Tunisia, Turkey, United Arab Emirates, and the United States of America.

Ukraine also signed agreements on partnership and cooperation with European Communities and their members (effective as of 01.03.1998) that stipulate most favored treatment for the members of the agreement except advantages in free trade areas and advantages of neighbor countries aimed at the simplification of cross-border traffic.

Before WTO accession, almost 45% of imports came from countries that had the most favorable duty rates (in Ukrainian legislation such rates are called privileged; 82 countries enjoyed such rates).

Free trade agreements were signed with the Republic of Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, the Russian Federation, Tajikistan, Turkmenistan, the Republic of Uzbekistan, as well as the Former Yugoslavian Republic of Macedonia. Free trade agreements with Lithuania, Latvia, and Estonia were ceased due to their accession to the EU in 2004. Import from free trade zones (12 countries listed above) is not subject to duties apart from the exceptions from the free trade regime. About one third of free trade zones have certain exceptions to the regime — these are Belarus, the Russian Federation, Moldova, and Kazakhstan. Russia, for example, has exceptions for sugar, confectionery and other products.

Full duties before WTO accession were levied on 3% of imports (Economic Research…, 2005). After WTO accession this share decreased, because Ukraine uses privilege rates of import duties as part of the most favored treatment for all goods coming from WTO member states (153 countries).

In the process of Ukraine's accession to the WTO, there was a significant decrease of weighted average and average duty rates (Table 3.10).

A comparison of WTO average rates of import duties with effective rates in leading countries demonstrates the high level of Ukraine's obligations (Figure 3.7). Only the USA has an average duty tariff that is lower than that in Ukraine after WTO accession.

Table 3.10

EFFECTIVE IMPORT DUTIES OF UKRAINE AND THOSE OF THE WTO

Duty rate	As of 01.09.2005, %	WTO level, %
Weighted average rate for all products	7.02	5.09
Agricultural products	18.19	10.07
Industrial products	6.11	4.77
Average rate for all products	6.61	6.28
Agricultural products	13.84	11.16
Industrial products	4.40	4.85

Source: Materials of Parliamentary…, 2006.

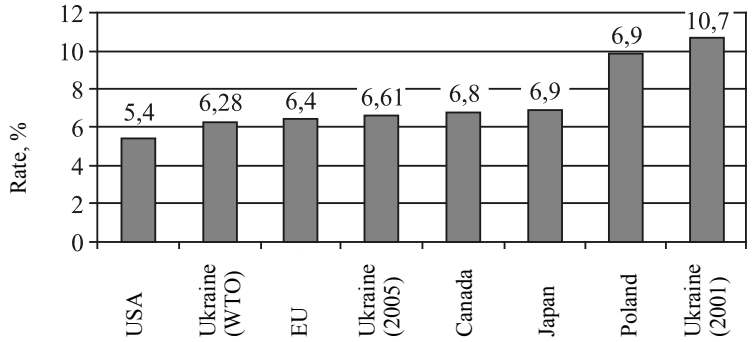


Figure 3.7. Average Rates of Import Duties in Ukraine and Several WTO Members[11]

During negotiations on WTO accession, Ukraine undertook to join 16 sectoral agreements and initiatives and almost all of them (with the exception of the chemical and textile industry) stipulate the introduction of a 0% import duty (Table 3.11). Most agreements and initiatives became effective before Ukraine's accession to the WTO (except civil aviation and distilled spirits).

[11] Created by the authors based on : Annual Report…, 2003, p. 14; Informational and Analytical …, 2006, p. 22.

Table 3.11

OBLIGATIONS OF UKAINE IN TERMS OF JOINING SECTORAL AGREEMENTS AND INITIATIVES

Name	Year	Year (%)
1. Chemical harmonization	2004	5.5—6.5
2. Steel	2004	0
3. Toys	2004	0
4. Timber	2004	0
5. Textile and Clothing	2004	0—17.5
6. Non-Ferrous Metals	2004	0
7. Pharmaceuticals	2004	0
8. Paper	2005	0
9. Agricultural Equipment	2005	0
10. Furniture	2005	0
11. Information Technology	2004	0
12. Scientific Equipment	2006	0
13. Construction Equipment	2006	0
14. Medical Equipment	2006	0
15. Civil Aviation	2010	0
16. Distilled Spirits	Within 3 years of WTO accession	0

Source: Current State…, 2008.

Table 3.12

IMPORT DUTY (PRIVILEGE RATES) LEVIED ON GOODS IMPORTED INTO UKRAINE

Effective import duty									
Import duty rate, %	0	0—5	5—10	10—15	15—20	20—25	More than 25	Specific rate	Total
Number of products	3,495	3,418	2,213	890	393	44	122	672	11,247
Share of all products, %	31.07	30.39	19.68	7.91	3.49	0.39	1.08	5.97	100
Maximum rate of import duty									
Groups 1—24:			50 % (4.86 % are more than 25 %)						
Groups 25—97:			25 % (only 0.48 % of products)						
Average rate of import duty (%)						6.51			
Average rate of effective import duty (%)						5.10			

Source: Working Group Report…, 2008, p. 38.

3.4.3. Protection of the National Producer

According to the estimates of the World Bank, import duty in Ukraine has three main drawbacks: the excessive protection of agriculture, the high escalation of the duty rate, the excessive complexity of the tariff scale which leads to the incorrect classification of products and creates opportunities for corruption (Economic Research…, 2005).

However, it should be noted, that duty rate escalation is present in most countries of the world. In developed countries the highest protection goes to textile and clothing (weighted average import duty rate is at a level of 8.4%), leather, rubber products and shoes (5.5%), agricultural products (5.2%), fish (4.2%), transportation equipment (4.2%). The lowest import duty is applied to timber, paper, and furniture (0.5%), oil (0.7%), fossil minerals, gems and ores (0.7%), metals and metal products (0.9%), non-electric equipment (1.1%), chemical products (2.2%). Access to agricultural product, textiles and clothing markets is extremely complicated. This is understandable, because this is how developed countries protect sensitive industries (agriculture, textile and clothing industry) on the one hand, and favor the import of the necessary raw materials on the other.

Metal production and the chemical industry enjoy protection in developed countries through anti-dumping, compensational and special protective duties, therefore, regular import duties for these products are fairly low (Figure 3.8).

We need to point out that duties in developed countries are also built on the principle of duty rate escalation and contain specific duty rates that in effect hide rate peaks. If these were taken into account, average effective duties would be 5-7% higher. When recalculated using ad valorem values, some duties in the EU reach 210%, in Canada they reach 314%, in the USA — 253% and in Japan — 1,739%[12].

In Ukraine, just like in most countries, the most protected are the markets of agricultural products (first and foremost, sugar and sugar products; the flour and grain industry, meat and offal, milk and dairy products, alcohol and non-alcoholic beverages) as well as cars, clothing and shoes (Table 3.13).

We need to note that Ukraine has export duties levied on certain oil seeds, cattle, leather materials, ferrous metal waste and scrap. They were caused by the necessity to fight the crises in the relevant sectors of the economy.

Export duty levied on sunflower seeds at 21% of the customs value was introduced in October 1999 when seed production was developing extensively. Almost 50% of sunflower seeds was exported, processing

[12] Based on the data of the WTO Secretariat.

capacities were utilized at 30%, some of them ceased operations. A deficit of sunflower oil led to a situation whereby domestic companies processing sunflower seeds, producing oils, margarine, special fats and mayonnaise were on the verge of bankruptcy.

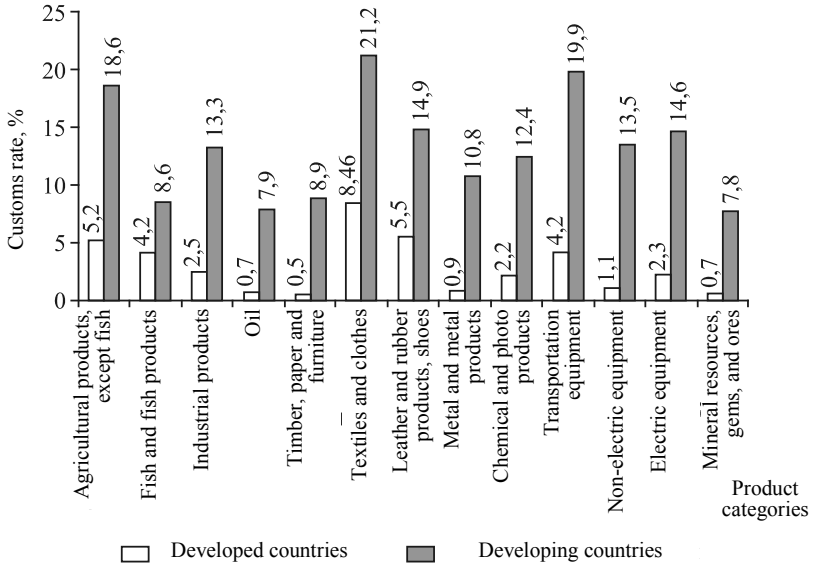


Figure. 3.8. Average Weighted Rates of Effective Duties by Product Category after the Uruguay Round

Source: Development, Trade and…, 2002.

Table 3.13

PRODUCT CATEGORIES MOST PROTECTED BY REGULAR IMPORT DUTIES IN UKRAINE

№	Category	Description	Average	Weighted average
1	Group 17	Sugar and sugar products	27.81	46.82
2	Group 11	Flour and grains, malt, starch, insulin, and gluten	23.43	28.85
3	Group 24	Tobacco and industrial substitutes thereof	25.16	25.09
4	Group 02	Meat and offal	21.52	23.31
5	Group 04	Milk and dairy products, eggs, honey, other meat products not mentioned in other categories	24.88	23.07

continued Table 3.13

№	Category	Description	Average	Weighted average
6	Group 22	Alcohol and non-alcoholic beverages, vinegar	23.97	22.83
7	Group 07	Vegetables, plants, roots and tubers	19.46	19.64
8	Group 87	Vehicles, trucks (rigs), bicycles and other road transportation means, spare parts and accessories	10.61	16.1
9	Group 42	Leather products, saddles and harnesses, luggage, handbags and similar products, products made out of animal guts (except catgut)	12.94	16.03
10	Group 16	Foodstuffs made from meat, fish or crustacean, molluscs and other invertebrates	17.34	13.7
11	Group 10	Grains	8.77	12.28
12	Group 19	Grains, flour, starch or milk products; confectionery	12.79	11.39
13	Group 61	Clothing and accessories, knitwear	11.44	11.35
14	Group 20	Processed vegetables, fruits and other parts of plants	12.97	10.57
15	Group 62	Clothing and accessories, textiles with the exception of knitwear	11.55	10.49
16	Group 91	Watches and their spare parts	9.22	10.49
17	Group 65	Hats and parts thereof	10.47	10.1
18	Group 64	Shoes, leggings and similar products; parts thereof	10	10
19	Group 66	Umbrellas, parasols, walking sticks, portable walking stick chairs, whips and parts thereof	10	10
20	Group 67	Processed feather and down as well as products made thereof; artificial flowers, products of human hair.	10	10

Source: Materials of Parliamentary Hearings…, 2006.

The introduction of export duty for some oil seeds made oil and fat production into an industry that is attractive for investment, led to the better use of production facilities and increased output of oil, margarine, special fats and mayonnaise.

In the same way the Law of Ukraine «On the Export Duty for Cattle and Raw Leather Materials», No. 180 from 7 May 1996, improved the situation in the leather and shoe industry. In 1995 (before the introduction of the duty), the export value of raw leather was USD 85.5 m, of unfinished and finished leather products — at just USD 19.1 m; in 2001, these values were USD 26.8 m and USD 82.0 m, respectively.

When Ukraine was negotiating with the WTO, member countries demanded the cancellation of export duties. As a result, a middle ground was reached — duties are to be gradually lowered. Export duties levied on certain oil seeds are decreasing by 1% annually until they reach the 10% level (in 6 years after accession). Cattle duty was set at 50% and is to be decreased by 5% annually to reach 10%; leather materials duty was set at 30% and is to decrease by 1% annually to reach 20%. Effective duties levied on ferrous metal waste and scrap are also a middle ground — the gradual lowering of the export duty from EUR 30 to EUR 10 per ton; non-ferrous metal scrap duties are decrease from 30% (no less that EUR 0.4/kg) to 15% (no less than EUR 0.2/kg).

The system of volume restriction on imports to Ukraine in general meets WTO requirements. In terms of export restrictions, Ukraine undertook to cancel the ban on the export of non-ferrous metal scrap and restrictions on the export of grains, precious metals and gems (except gold, silver and diamonds).

The list of products whose export and import requires licensing and quotas are set annually in the relevant decree of the Cabinet of Ministers of Ukraine; volume restrictions are mostly set, based on the results of anti-dumping, compensational and special investigations conducted by the Interagency Commission on Foreign Trade in Ukraine (it follows the rules and norms of the WTO). The following materials and products are also subject to licensing: those ruining the ozone layer (for reasons of environmental protection), plant protecting substances (for reasons of the protection of human health, animals and plants), poly-carbonates used for the production of optical devices for information storage, stamps, stamp paper, securities and laser disks (for reasons of the protection of intellectual property).

State subsidies are an important instrument of trade policy and national export stimulation for all countries. When joining the WTO, Ukraine undertook not to subsidize export. Certain programs were also changed to meet the requirements of the WTO; these are programs of domestic industrial protection as part of special economic zones, priority development territories, technological parks as well as specific programs for the fish industry, ship, automotive and plane manufacturing, air and space, coal-mining and publishing.

In the course of negotiations, Ukraine kept its right to implement measures for the domestic protection of agriculture in the amount of UAH 3.043 b, i.e. planned measures can be used. If we compare agricultural support to that in the countries of the OECD, we can conclude that in 2004, New Zealand implemented measures of 2% of total production, Australia — 4%, USA — 18%, Japan — 56%, Norway and Switzerland — 68%. (World Trade…, 2006, p. 151). In Ukraine, it was at a level of 3.5%[13], but it will increase as the situation improves.

In 1991-2008 there were roughly 150 investigations, mostly anti-dumping (roughly 100), started against products from Ukraine. As of May 2008, there were 37 restricting measures (33 — antidumping and 4 — special protective) against Ukrainian products, first and foremost, rolled metal, seamless and welded pipes, steel ropes, ammonium nitrate, urea, etc.

An important step on the way to equality in trade relations with the countries of the EU in terms of anti-dumping investigations, was when on 30 December 2005, Ruling No. 2117/2005 came into effect, transferring Ukraine from the list of countries in transition to market economy in the context of anti-dumping EU legislation. Prior to this, the nominal value of products was determined through theoretic calculations or looking at similar countries. This methodology often led to the incorrect calculation of the nominal value and, therefore, high anti-dumping duty. The United States of America also recognized Ukraine as a market economy (early 2006).

In order to protect the interests of national producers on foreign markets in terms of anti-dumping, special protective and compensational investigations that were initiated against Ukrainian products, on 7 June 2006, the Cabinet of Ministers of Ukraine passed Decision No. 801 «On the Procedure for Protecting the Interests of Ukrainian Producers when Foreign Countries, Economic or Customs Unions Conduct Anti-Dumping, Special Protective or Compensatory Investigations against Ukrainian Products». The purpose of the Decision is to ensure a more effective coordination of work between the executive branch agencies responsible for the implementation of state industrial policy and Ukrainian producers, as well as at the protection of the interests of Ukrainian producers on foreign markets as part of anti-dumping, special

[13] Calculated by the author based on data released by the State Statistics Committee of Ukraine — http://www.ukrstat.gov.ua/ (tab: Statistical Data) and O. Nivyevsky Expenditures on Agriculture and WTO/ Institute of Economic Research and Consulting/ http://www.ier.kiev.ua/Ukraine/RT/rt28092005_present/rt_28092005_ukr_nivyevskiy.pdf

protective and compensatory investigations initiated against Ukrainian products.

At the same time, Ukraine only started carrying out investigations in 1998 when the Anti-dumping Code was passed — the code includes three laws; «On the Protection of National Producers from Dumping Imports», «On the Protection of National Producers from Subsidized Imports», and «On Using Special Measures with Regard to Imports into Ukraine». According to the code, investigations are carried out by legislative bodies, i.e. The Ministry of Economy of Ukraine, State Customs Service of Ukraine, and the Inter-Agency Commission on International Trade. The Commission organizes and controls investigations, chooses to initiate them, decides on whether there is dumping or harm and makes the final decision on the use of adequate measures.

Since 1998, Ukraine has carried out 40 investigations. Products the import of which was investigated and protective measures were used are iron ore concentrate, rubber tires for passenger vehicles, ball bearings, steel ropes and cables, knitted fabrics, sodium carboxymethyl cellulose (glue), electric heating lamps, asbestos cement sheets (asbestos board), wood-fibra boards, etc. As of October 2010, there are 25 protective actions — 22 final anti-dumping measures and 3 special protective measures. In other words, Ukraine actively uses protective measure in its foreign trade activities; these are largely used against products from CIS countries (first and foremost, the Russian Federation) and China (6 actions).

3.4.4. Protection of Intellectual Property and Standardization

In terms of the regulation of trade aspects of intellectual property rights, Ukraine has a separate legislative basis; there is also a mechanism for the implementation of intellectual property norms at the level of developed countries.

In order to achieve it, a set of laws and rulings on intellectual property was passed, work was done to implement existing laws and norms, measures were taken to prevent the production and sale of fake audio- and video-products and software on the territory of Ukraine. In the system of law enforcement and intellectual property protection, a separate division was created on software legalization, national register of producers and distributors of software and information and a search system for the distribution and use of licensed software are being created. In order to conduct state control of the compliance of businesses to legislation on intellectual property, a division of state inspectors on intellectual property was created as part of the State Department on

Intellectual Property of the Ministry of Education and Science of Ukraine. Specialized departments at the Ministry of Interior, State Tax Administration and Customs Service work on preventing the violation of intellectual property rights.

In decentralized economies, institutes of intellectual property rights are focused on strengthening the stimuli of investment into high-tech industries. However, increased protection of intellectual property rights is not a valid reason for such investment. In the first place they depend on an effective system of investment stimulation, research and engineering works in the industrial sector, capital markets, financial system, etc. The task of building a new regulatory apparatus is to be accompanied by reforms in other fields, e.g. reforms of the legislation on shareholder rights, collateral, bankruptcy and financial services, for the purpose of stimulating investment into creative work and new technology in Ukraine.

Technical standards and procedures are particularly important for the production of technologically complex products, the creation of a new certification system that is recognized by other countries and improves the competitiveness of Ukrainian products on global markets.

Ukraine took a series of measures for the implementation of the Agreement on Technological Barriers to Trade. The Laws «On Standardization», «On the Assessment of Adequacy», and «On the Accreditation of Certification Agencies» were adopted. During the negotiation process with the WTO, Ukraine passed 6,113 legistive acts on standardization, 2,516 of which were harmonized with international and European standards. At the same time, the current standardization system in Ukraine doesn't meet international requirements, which is caused by a number of problems:

- the use of many legistive acts that remained from the USSR;
- the failure of standardization bodies to meet the requirements of the national standard ISO/IEC Guide 59:2000 the Code of Standardization Rules and national standard 1.13:2001 National Standardization. The Rules of Giving Notice to Trade Partners of Ukraine;
- insufficient activity of business entities in funding the creation of national standards and the inadequate coordination of the work of technical committees for standardization, which leads to an inadequate preparation level of draft legislation;
- significant lag in completing tasks defined by the Program of Ukraine's Integration into the European Union on harmonizing national standards with international and European standards;
- limited participation in the work of international and regional organizations on standardization (the Ruling of the Cabinet of Ministers of Ukraine…, 2006).

International organizations for standardization passed almost 20,000 standards that are used when international trade is conducted, pursuant to the requirements of the WTO; there are 16,000 documents of European organizations for standardization that are used by members of the European Union and their trade partners.

Ukraine needs to introduce more than 8,500 standards. The State Program for Standardization in 2006-2010 is supposed to help with this; its aim is to ensure the development of the national standardization system and its adequacy to the requirements of the Agreement on Technical Barriers in Trade and its harmonization with the standardization system of the European Union. Moreover, we need to create a court system that can quickly, fairly and transparently solve issues regarding the responsibilities of the producer. As we can see from the experience of WTO member countries, it is very costly to conduct the implementation of legislation, provision of information to the public, provide equipment for the metrological base and research laboratories, as well as support the information center for inquiries from WTO members.

Ukraine is also planning to modernize its system of sanitary and phyto-sanitary measures. Just like in the case of technical regulation and the protection of intellectual property rights, the effective use of the WTO Agreement on sanitary and phyto-sanitary measures depends on large-scale investment in order to implement world class systems for public healthcare and protection of the flora and fauna. The harmonization of sanitary and phyto-sanitary measures with the relevant WTO agreement in Ukraine is not enough to provide the effective export of agricultural products. Therefore, it will be necessary to solve more fundamental problems, such as the legislative regulation of land ownership, availability of credit, etc.

3.4.5. Conclusions

Accession to the WTO creates a number of opportunities for Ukraine. However, at the modern level of economic development, Ukraine has two negative features. Firstly, it is dependent on the situation on foreign markets. Of the 100 top companies according to gross revenue, 45 belong to the top 100 exporters from Ukraine (Ranking of 100 Top…, 2004). 23 of these exported raw materials or metals. This means that financial stability in the country, just like in the mid-90s, depends on metal production, which accounts for 30% of foreign exchange proceeds.

Secondly, national production is dominated by products with low value added. The basis of big business in Ukraine is, like before, metal production and chemicals. In the top 100 best big companies in Ukraine

there are no high-tech companies; moreover, metal production has been growing as part of the GDP and is currently at a level of more than 25%.

In these conditions, the opportunity to increase the export volumes of Ukrainian products and services to foreign markets is limited, due to the incompatibility of the product structure of Ukrainian exports with the structure of global trade. According to the data provided by the International Trade Center, a series of product categories in Ukrainian export is in degrading sectors or sectors, the growth of which is not promising, based on the deteriorating conditions of trade in these products on world markets (Trade Performance Index…)

Thus, in order to use the advantages of WTO membership, we need a structural adaptation to the priorities of the world economy as well as the formation of an adequate innovation and investment strategy. Moreover, the advantages of free access to the markets that is gained through WTO membership is most visible for the markets with primarily price-based competition, i.e. commodity markets. Therefore, it is necessary to use a broader selection of measures for economic policy, i.e. a trade policy that would influence innovation acceleration in the sectors of potential competitive advantages in the Ukrainian economy.

In many sectors, Ukraine has worked according to WTO rules since 2005; therefore, there is valid reason to say that there will be no deterioration due to WTO accession. Moreover, the sectors that will experience the negative impact can have temporary justified special protective mechanisms for modernization, restructuring and competitiveness, as stipulated in WTO agreements.

3.5. Ukraine's Positioning in the European Economy

3.5.1 Introduction

In this special period of world history, the period of globalization and global crises as well as the growing inequality of economic development of countries, Ukraine faces the question of looking for new ways of development, which requires understanding future goals and scenarios as well as a clear impression of what such transformations will lead to, what the achievements will be, what we will need to sacrifice, and why the country needs to go through transformation difficulties. Answers, although initial, to these questions outline approaches for the formation of a new ideology of Ukrainian society's integration into the world community. These questions demonstrate the problem of higher aims and values that make all social processes look extremely important. For

Ukraine they are still important, because Ukraine is still developing without any scenario.

Ukrainian politicians with the unanimous support of society once declared very ambitious goals of forming the basis of the economic and political positioning of the country in the world by following the European example, i.e. high competitiveness of the national economy and its domination that is linked to the establishment of high standards of living in the country. The transformation of the institutional structure of society and the formation of a market economy for Ukraine was never the ultimate goal — market economy was seen as a more effective form of management that naturally stimulates economic development and is able to provide these standards. Social welfare is seen as the pre-requisite of stability and might of the country and, therefore, as the goal of transformation.

At the same time, the issue was not simply about economic success but also saving the values that have already become a significant component of the Ukrainian mentality, i.e. communitarism and social justice. The origins of this mentality lie in the past of the country, but they were also proved by modern examples, i.e. the success of Western European models that combine market values with high standards of living.

These intentions found their reflection in the notion of the necessity of building an effective social and market economy and were declared by the Ukrainian government in the first half of the 1990s, during the period when the economic downturn was at a critical level. Despite all attempts of the world community to introduce a unique model of market development and a harsh method of shock therapy in Ukraine, these intentions caused the special national parameters of transformation.

There were also certain economic reasons, because a country's position in the global and regional realm is first and foremost defined by its economic and integration potential, the maturity of the infrastructure, level of social stability, and the quality of human and research capital. Ukraine's claim to a good position in the world, starting from the point when Ukraine gained independence, was mostly based on its starting economic potential, developed scientific potential, strong industry, strong resource base, good geographic location — the country is located on the intersection of trade routes and has a strong fleet, automobile and railway transportation, developed transportation communications and infrastructure and a fairly high level of integration in the global economy. Ukraine was way ahead of other former republics of the USSR according to all indicators and had a valuable background at the start of the transformation, giving hope that it would determine its foreign economic

development as well as forms of international cooperation and this would allow it to hold a position, if not of domination, then also not of being on the periphery of the world economy and would also integrate into the European economic spau on its own terms.

These expectations reflect the mentality of Ukrainian politicians and the population that formed during its communist past; irrationality and infantilism have been also characteristic of this mentality. Governments of the independent Ukraine did not realize that integration has applied, rather than political, significance and serves as one of the instruments of the state fulfillment of national interests on the international arena — the sense of process boils down to the rational redistribution of strategic world resources and their use for consistent economic growth. It was not taken into account that in these processes, the reverse may also apply — redistribution takes place in accordance with the laws of the nature, which objectively outline the position of the weaker country as a source of resources and its economy as an auxilliary or serving economy for the dominant countries. It was not taken into account either that the course of integration into the modern world is determined by economic benefits, while its effectiveness is measured by the success of the national economy or that leading positions are won in a competitive war.

Another important moment is that countries integrate in order to deal with development difficulties but at the same time, they try to keep their sovereignty. This sovereignty is not just about the protection of language or ritual symbols of the nation, it is about forming a sustainable and stable core of the national economy that will help prevent the consequences of external aggression and destructive external impact and thus requires the formation of this structure controlled by the state, i.e. subordination to social interest and its exclusion from the context of private interests of national groupings.

When determining integration vectors, it was necessary to solve the question of the adequacy of its results to the main parameters that will determine the status of the country: what form does the structure of the national economy ultimately need to have in order to provide a certain level of sovereignty, what economic conditions will Ukraine have when the country joins the global space (as an auxiliary element or an equal partner); whether the standard of living will reach a qualitatively new level. At the same time, it shouldn't be forgotten that the other side of this process is the interest of the world community in the integrative acquisition of a separate, in this case, Ukrainian national economy, i.e. how attractive its potential is and whether it has the required advantages.

3.5.2. Implications of the Inherited Structure of a Materialistic Economy

The general criterion for entering the world economic system on a par, is the level of the relevant development — the one on which the countries find themselves, i.e. the post-industrial one. Otherwise, e.g. based on the resource potential, the country will not choose its place but will be assigned a place in the global economy by stronger world players.

Integration aspirations of Ukraine in the first years of independence faced a series of problems. Firstly, it turned out that demand for its integration potential boils down to demand for raw materials and low value added industrial products — everything that was deemed competitive in Ukraine, e.g. scientific achievements, high technology, was not demanded (did not correspond to the set world economic structure or economic needs), all niches were already taken, or was the joint property of Ukraine and Russia and could not be used without the latter's permission. Secondly, without market transformation, the unification of the grounds for development, the Ukrainian economy was not compatible with the European market space.

Understanding the fact that the economy of the country is not inherently attractive, just because it complements the structure of the world economy, forced the governments of Ukraine to choose the option that has a series of advantages, infrastructural and territorial in nature. Ukraine's declared goal of EU accession is very much defined by the understanding that any other integration vector will lead to a certain loss of sovereignty, becoming peripheral and the subordination of its economy to global needs. In this context, the EU is the best integration model, because, unlike other integration formations, except pragmatic, purely economic goals that boil down to the need of the realization of natural competitive interests and meeting the need for resources, also has other goals, such as consistent economic growth and the convergence of country development levels, reaching a high level of collective economic security and only requires partial concessions in terms of national sovereignty. In effect EU accession for Ukraine is the attempt to solve problems that it cannot solve on its own due to harsh competition.

At the same time, Ukraine can only join the EU on the terms of the is integration block rather than on its own terms, i.e. with the partial loss of economic, institutional and political sovereignty. These terms, formulated by the Union, focus on good final results and at the same time, on extreme activity, because apart from its geographic location in Europe, linked transportation and a common infrastructure that are a given, all other indicators required hard work to transform Ukraine into a democratic

country. It was necessary to develop an effective market economy that can compete on global markets, be able to adapt the aquis communautaire of the EU, and ready to carry out the obligations of EU member. In terms of economics, the key requirement is an economy that can compete on global markets due to certain national economic advantages. The essence of the question is what advantages the integration grouping will favor most. Clearly, the desire of the community to accept a new member together with its problems, is determined by its ability to take it in and adapt it to its own standards while doing no harm to the economy of this regional grouping, i.e. the main reason for the high standards set for Ukraine is first and foremost, the fact that the structure of its national economy is to complement rather than substitute or ushape the existing structure of the EU economy.

3.5.3. Implications of the Structural Changes in the National Economy

Ukraine's weakness is in the low competitiveness of its economy that is measured not only by the level of labor productivity, it is in the country's lagging behind global development trends, despite sufficient natural resources and acquired potential. This inadequacy of development levels is the main obstacle to convergence with leading countries.

The increased competitiveness of the national economy of Ukraine, right from the start of the reformation process, was linked to its restructuring, especially during the first years of independence, when its parameters could be formed on their own.

Clearly, it needed general and institutional restructuring, based on effectiveness and rationality and driven by private economic interest that is based exclusively on private property, as well as restructuring that would help create the core of high-tech industries that would guarantee that it becomes competitive and economically secure.

At stage one, in early 90s, it was believed that the formation of the basis for development and the exclusion of the state from the economy would automatically provide economic growth and integration into the world economy as a whole and the European economy on equal terms. Instead, at that point, the economy of the country was in deep economic crisis. In 1990-1999 GDP fell by 60.8% or 2.5 times (more than UAH 2 trillion). In addition, this period saw the start of capital flight (more than USD 100 b was taken out of the country). The economy of Ukraine was in effect taken back decades in its development. Even though 2000 greeted the start of an economic revival, which showed high economic growth rates for an extended period (in 2000-2007 Ukraine grew by 66.4% or 7.2% annually, which is much higher than average world

indicators), its volatility remained fairly high (ranging from 2.5% in 2005 to 12.4% in 2004; the fluctuation of the coefficient for 2000-2006 was 42.5%) [14], and Ukraine still hasn't reached the 1990 level of GDP (Figure 3.9). In 2007 GDP was at 69% of the production levels of the former Ukrainian Republic as part of the USSR. This indicates that the country hasn't yet transitioned to the next development stage, the compensatory stage, and is losing the potential that can provide qualitative changes, economic breakthrough and further development dynamics that would help it become part of the economic community on its own terms.

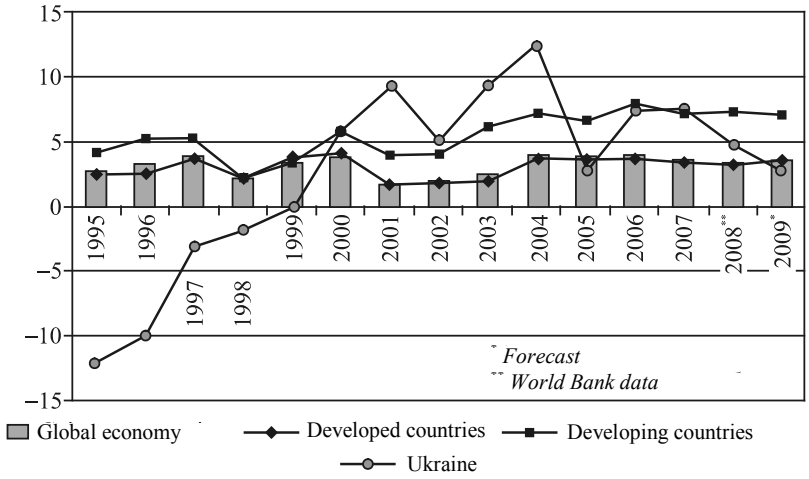


Figure 3.9. GDP Growth in Ukraine and the World
(% change to previous year)

The irrationality of the economic structure is caused by over-reliance on the leverages of market regulation. The elimination of the state from the processes of the reformation of the national economy was strengthened by deep transformations of the economic system that required the formation of the institute of private property. Hopes for the formation of a rational production structure were mistakenly linked to market transformation, instead, the total individualization of economic interests led to devastating consequences: production of competitive products was privatized (their competitiveness was largely caused by the high demand level for products of first-tier processing and, thus, low value added). We need to take into account the fact that current changes in trade terms (import and export prices) are most significant for products

[14] Unless otherwise stated, based on the data of the Ministry of Economy of Ukraine.

with a low processing level, which made the effect stronger (Figure 3.9), therefore, growing export of such goods under conditions of changing global market conditions undermined the financial and economic basis of the restructuring. These products have been the basis of Ukrainian export. In 2006 the share of metals in export was at a level of 42%, chemicals — 12%, grains — 3.5%. The share of mechanical engineering products, which still remains low-tech is at 14.3%. Let's compare it to 1995 during the crisis (when mechanical engineering production was ceased due to a deficit of components) when trade in low value-added products and demand for such products were particularly strong, the share of mechanical engineering products in the export structure of Ukraine was at 19%, while the share of metals was at 36%. Even compared to neighbors from Central and Eastern Europe, Ukraine looks weak — firstly, the export of raw materials and low value-added products from Ukraine is 4-10 times higher than that from the Czech Republic, Hungary and Poland; secondly, the export of mechanical engineering products from Ukraine is 5-7 times lower than that from the countries of Central Europe. In addition, the dependence of the process of a new economic structure formation on the individual interests of major exporters, makes this structure not just archaic but also unstable. One of the indicators of this instability is the fact that presently, economic activity in Ukraine continues to be mainly defined by external market conditions — there is a very close link between changes in foreign market conditions and the GDP.

The almost direct link between the dynamics of domestic production and global metal prices is also significant. Deteriorating trade terms in 2000 caused a GDP decline and a reduction in several types of production; improvement on foreign markets starting from the second quarter of 2006 turned metal extraction and production as well as the mechanical engineering industry into the driving force of the industry and the economy as a whole. It should be noted, that Ukrainian business was able to take advantage of favorable global market conditions and started showing high dynamics of development, particularly in terms of technological re-equipment. However, such positive changes do not allow us to characterize the structure of social production in Ukraine as capable of bringing about an economic breakthrough in the country. The first reason for this is that qualitatively different poles of development (i.e. innovative production rather than post-industrial) do not meet the current requirements of an economic breakthrough, let alone domination. The second reason is that growing revenues from raw materials and low value added production in market conditions, favors the conservation of the production that is the source of these revenues. This is evidenced by the

trend of growing new value added that significantly and increasingly lags behind the growth of production output over the years of economic growth. If we take 1999 as a base (the last year of economic decline when value added was at 40% of the 1990 level), by the present time, value added grew by 40% and gross output grew by 60%. This was caused by the almost two-fold increase in industrial consumption (raw materials and processed products) — it has been fairly high over recent years (over 60%), while even in 1991its share in the output structure was 50%, i.e. it was 10% lower; in developed countries this share was 45-50%. The economy of Ukraine remains costly and material intensive.

We also need to note that currently the gap between volumes of added value and production output has increased due to social and fiscal policy as well as gas price increases in 2005-2006. For example, net tax grew significantly: by 29% in 2005 and by 17% in 2006. In 2007, the growth of net taxes accounted for one third of increase in domestic production and the trend persisted in 2008. At the same time, the salary level remains low, which brings about price competitiveness.

The formation of the rational structure of the national economy, the structure that national economic security is based on, is the domain of the state. It is especially true for countries with a transition economy: in such economies the state is responsible for initiating poles of development. However, the state can only influence these processes when it has market leverages, i.e. strategically and effectively functioning public enterprises and (which is closely related) significant financial resources, sufficient to initiate and correct the cumulative processes in structure-forming and currently (as demanded by modern conditions) innovative industries. The state of Ukraine, the share of which is roughly 21%, lost the ability to correct these processes by market mechanisms, and by protecting the national interests of the population, uses mechanisms of non-market influence, by contradicting the interests of the rest of private businesses.

It is worth paying special attention to the structure of this property and the ways of transforming the basis of national economic development, its market unification and adaptation to globalization requirements. In Ukraine they boiled down to privatization that was not well thought through and sometimes harmful. As we have already noted, despite the logic of building a stable and strong national economy, privatization in the country was subordinated to the private interests of groups in power; therefore, they privatized profitable and strategic enterprises that could have allowed the state to influence the process of the formation of a national economic structure and improve the international position of the country in the global economic arena. Moreover, the share of the state in revenues is declining.

At the same time high-tech production requires significant capital injections that will not pay off soon; therefore, it is not in demand and remained in public property, at which the state is unable to fund its development. This is how the structure of the economy deteriorated.

All along, privatization in Ukraine has been seen as a populist move aimed at convincing everyone that market transformations are inevitable and as a fast way to generate revenues that will be used to patch the holes in the budget. The most illustrative example when privatization was used as a political and populist, rather than social and economic, tool is the re-privatization of Kryvorizhstal. If we distance ourselves from the still acute problem of the social value and general purpose of its privatization that caused the state to lose significant revenues to the benefit of private owners while modernization never happened, the value of its re-privatization is still questionable. The funds (USD 4 b) obtained during the course of the resale were to become the investment for the modernization of the structure of the national economy. Instead, these funds were lost on the supposed increase in social standards. Meanwhile, in 2006-2007, 15,000 employees were made redundant; a further 12,000 employees where scheduled for redundanct in 2008. This didn't just aggravate the problem of unemployment in the region and become an additional burden on the regional budget (unemployment expenditures went up), it also cut budget incomes, because the lion's share of the budget of Kryviy Rih is largely formed by income tax, i.e. deductions from the payroll expense. In 2007 roughly UAH 6m went to the city treasury, but as a result of the redundancies, these incomes decreased by more than 50%. Payroll expense taxes and pension fund payments that are made by the factory will also decrease, which will cause a deterioration in public welfare.

Other negative aspects of re-privatization were the reduced investment rating of Ukraine, which cannot guarantee the owner his property rights, reduced budget revenues (in 2007 alone, new and, more importantly, foreign owners received more than USD 800 m in net income), over 2.5 years of work the share of the domestic Ukrainian market in the sales structure of products necessary for the national economy grew by just 6% (from 15% to 21%), while the Ukrainian economy lost one third of its foreign market that went away with the factory to the new owner; although the investment obligations stipulated that he had to increase the supply of metal to the domestic market, he actually increased export volumes, thus squeezing out Ukrainian producers from the global market. In order to minimize costs, new managers started to gradually move away from Ukrainian raw materials in favor of the cheaper Russian and Kazakh materials, which also affected country revenues.

3.5.4. Implications of the Trans-Border Capital Movement

In terms of investment, the problem of attracting investment into the national economy has been important throughout the years of independence. All governments pointed to their insufficiency and stressed that investments are the main condition for economic restructuring. Although over the last decade, current investment into the economy grew almost two-fold, in 2006-2007 they were at just 35% of the 1990 level. And their quality is now very different from what it was during the Soviet era.

It was thought that the structural reform of the economy of Ukraine required much greater investment than the country had domestically; focus on domestic reserves will prolong the period of dealing with structural deformations caused by the ruining of technological links and the lack of stimuli for the development of high-tech industries; if our country doesn't attract foreign capital, it risks the de-industrialization of the economy and will have a hard time transferring to the post-industrial stage of development. However, the attraction of new investment that structural changes in the economy were linked to, didn't prove successful either — ruled by market laws, this process was distanced from the state and also led to the de-industrialization of the formerly strong economy.

At the same time, as Foreign Direct Investment (FDI) in Ukraine was growing, although the growth was modest compared to other countries (Figure 3.10), the structure of their use favored the development of the general trend for the further destruction of the formerly sustainable structure of the national economy. In the first 10 years of independence, Ukraine received USD 4.2 b, or USD 85 per capita. Of these, 75% were in wholesale trade and brokerage, therefore, they cannot be seen as real investment. Based on the recent data released by the State Statistics Committee[15], the total volume of FDI was almost USD 29.5b, and debt capital was at USD 33.5b. This means that USD 636.5 was attracted per capita, which is a significant increase in comparison to 2001. In 2007 alone, the net increase in FDI compared to 2006 was 67.1%; of this amount, just USD 6.9 went into processing industries and USD 1.1b went into extraction industries. Foreign capital was not injected into the high-tech industries of Ukraine, either. Neither was the technical re-equipment of budget-forming industries done, although the utilized technology was very outdated. For example, 95% of steel was smelted in open-hearth furnaces and converters and, specialists claim, some USD 40 b will be necessary to transfer the industry to the use of energy efficient technology, i.e. electric furnaces. So far metal production has received USD 1.7 b in FDI, while the mechanical engineering industry received

[15] As of 1 January 2008

USD 1.b. While one of the signs of an industrial state is large-scale machine production for all industries, Ukraine currently produces hundreds and thousands times smaller volumes of equipment and machinery than it did in 1999. At the same time, the harmful industry of tobacco and alcohol production produced USD 1.6b. This is, of course, due to the faster payback of these industries. It is payback in the market conditions that is the sole regulator that determines the structure of social production in less developed countries.

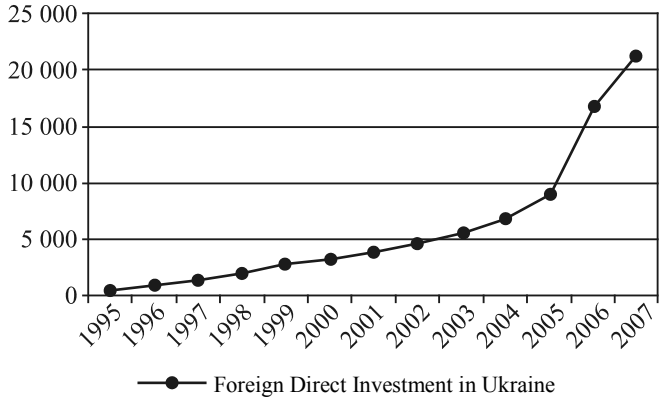


Figure. 3.10. Foreign Direct Investment in Ukraine (USD m)

The greatest volumes of FDI streamed into trade and services. The development of trade infrastructure, i.e. growth in the number of modern supermarkets is definitely a positive development, but it is not caused by the improved investment climate in the country, it is rather an indicator of its instability and the fact that the structure of the national economy is still being deformed and Ukraine is turning into a market for foreign products. Official data proves that roughly 7 million Ukrainians work outside the country. In 2007 they transferred about USD 22 b (roughly USD 3,150 each) in remittances, which is half the annual budget of Ukraine and, at the same time, the opportunity to increase effective domestic demand or savings. This value is many times higher than the FDI received by the economy. The annual inflow of half of the state budget was supposed to cause incredible economic growth and unprecedented GDP growth rates. However, in reality these funds are used mostly on current consumption, which is, especially after 2005, closely connected to imports.

Naturally, the negative image of Ukraine played its part and became the main obstacle to FDI inflow. The investment climate, determined by a series of factors, was really unfavorable for investment inflow despite the

formation of a developed market infrastructure and improved legislation. The reasons were: first, lack of economic development strategy, which prevented investors from determining the industries of long-term and promising capital investment, second, the fact that the state was distanced from the processes of cumulative investment that is always part of such strategy; third, instability in all areas of social life, particularly business legislation and regulation of domestic and foreign policy — it is necessary to point out that Ukraine has no inheritance of power that would guarantee maintaining its previous course; fourth, corrupt power that made investment very risky. All this prevented serious investors, aiming at long-term prospects, from conducting forecasts and assessing the investment. The economy of Ukraine thus lost the opportunity for restructuring, based on late industrial and post-industrial principles and therefore, focus on its own view of its international positioning.

3.5.5. Implications of Asymmetric Foreign Relations

Internal instability during the transition period stimulated capital outflow. Moreover, the investment base was getting smaller due to a low savings rate caused by the high level of current consumption that was in turn caused by low income levels and economic instability which also stimulated immediate consumption. Today the trend is reinforced by the outflow of income caused by the imbalance of export and import policies. This reduces domestic social demand and at the same time undermines demand for domestic investment (the sector of its use is getting smaller and in recent years only residential construction saw an increase in domestic investment). 2001—2004 were exceptional years when the Ukrainian economy demonstrated a steady growth trend; positive changes in the business climate and the revival of the national economy were the consequences of domestic political and macroeconomic stabilization; businesses realized the importance of the trend and this led to the activation of investment activity. Although at first economic growth was solely attributable to national currency devaluation, at later stages it was caused by the growth of world metal and chemicals prices; later still, it became clear that it was caused by the development of domestic investment and consumer demand that was growing based on political and macroeconomic stability.

The real sector of the economy of Ukraine as a whole became profitable, which led to budget surplus in 2001—2004 and a significant strengthening of budgetary discipline. Other indicators were also gradually changing, but starting from 2005 due to political destabilization,

macroeconomic stability was again shattered, which was immediately reflected in the growth of the lag between the index of real salaries, consumer prices and industrial producers. The economy could have collapsed were it not for the changes in the institutional structure of the economy that took place during the market transformation — they became the stabilizing factor. The openness of the economy to a certain degree helped Ukraine take part in the redistribution of the world banking and financial resources, establish mechanisms of domestic and foreign lending. Corporate lending stabilized the situation with investment into the real sector. More specifically, growth of foreign borrowing reflects the growing trust of foreign investors in the Ukrainian economy as a whole, stimulates investment activity, and is a sign of the integration of the national economy into the global economy. As seen below (Figures 3.11 and 3.12), incomes of Ukrainians and the economy as a whole, starting from 1999, are closely correlated with the development of lending.

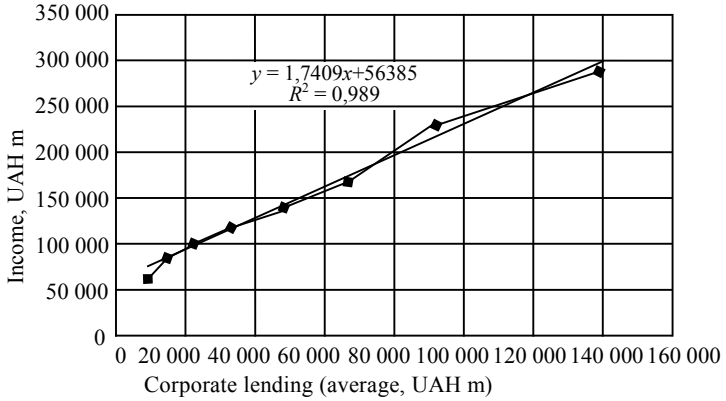


Figure 3.11. Correlation Between
the Borrowings of Corporate Sector and its Income

Particularly important is the growth of corporate lending that stimulates income growth through increased economic activity — corporate lending in 2007 led to significant income growth. The trend (Figure 3.11) proves that for every UAH 1 increase in corporate lending there is a UAH 1.7 increase in income.

The national banking system started integrating into the global economic system; apart from the fact that Ukrainian banks are getting experience of work with foreign borrowers, important for the economy of Ukraine is its participation in the redistribution of world financial resources and integration into world financial markets.

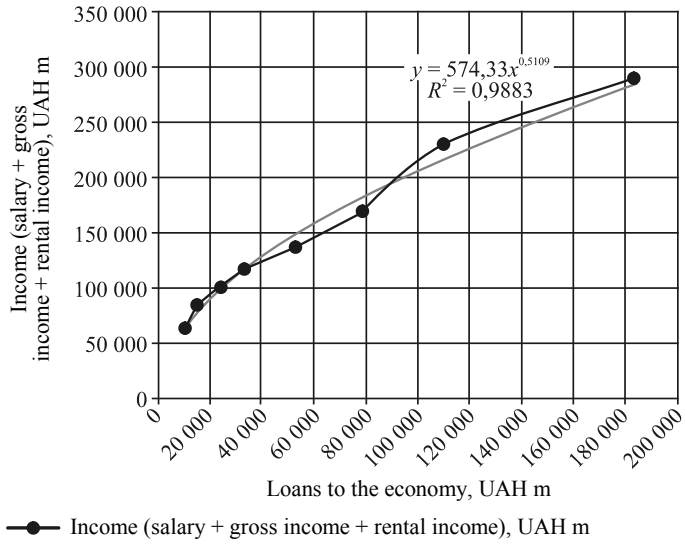


Figure 3.12. Income as a Function
of Lending in the Economy of Ukraine

The inflow of significant amounts of relatively cheap foreign loans helps to accelerate social and economic growth via increase in lending. This also means significant increase in income as the basis for demand. However, the main problem is in the structure of consumer investment demand, i.e. ways and directions of income use, which limits Ukraine's chances to transfer to the post-industrial, or at least late industrial, development stage, because after unreasonable changes in the import policy initiated in 2005, demand was significantly re-focused, which led to the outflow of financial resources abroad, intensified these processes and undermined the savings base, the basis of domestic investment, narrowed domestic sources and increased the potential of foreign competitor producers; investment demand started to increase but it re-focused on industries with a short payback period that could meet the need for revenues.

Over the last three years, imports into Ukraine have exceeded exports. The last time that Ukraine had a surplus trade balance was in 2004 (approximately USD 3.7b.), in 2005, the trade deficit was at USD 1.8b. Only in 2007 did the foreign trade deficit grow by 71% and was at USD 11.5b (product export grew by 28.4% and reached USD 49.2b, but import was growing at faster rates, at 34.7%, and reached USD 60.7b). In 2008, the foreign trade deficit was at a record level of USD 18.5b.

Experts from the Ministry of Economy of Ukraine also note a significant increase in the expenses of Ukrainian businesses on imported goods, that was linked to the growth in business activity: factories started paying more attention to the modernization of production and the expansion of capacity, so the import of equipment and its components grew significantly. However, 81% of these factories focused on export and specialized in low value added production; therefore, their activity contributed to the conservation of the outdated and de-industrialized national economy. On the other hand, both consumer and investment demand in Ukraine was, in effect, lending to foreign economies the markets of which were closed to Ukrainian producers. Fast inflation growth also proved resource outflow abroad and the real monetary base was becoming narrower. The inadequacy of monetary bases and their content led to price growth, national currency devaluation and inflation[16]. Naturally, we can attribute inflation, the new wave of which occurred in 2007-2008 and to external influences. Ukraine has an open economy and cannot be left outside global processes. The main reason for high import inflation was price growth on world commodity markets and the general market conditions of the world economy. However, internal reasons for inflation growth in Ukraine were also serious and proved, first and foremost, that the production structure had not undergone innovative changes that could have guaranteed stability and the gradual development of the economy.

One of the external threats was the narrowing of the monetary base of social production that largely affects weak national economies (with a weak structure at the core). The level of monetization of the Ukrainian economy that had been growing and had been cumulatively increased by lending volumes (Figure 3.13[17]), started to decline significantly in early 2008. The reason was the sharp reduction in investment lending and growth of consumer lending (in 2007 consumer lending grew by UAH 77 bln), which also stimulated consumer demand and caused monetary outflow.

Destructive changes in the structure of the economy that gradually turned it into a peripheral economy, were accompanied by the ruining of the state management system. The unprofessional actions of the previous governments were further aggravated by the never-ending political crisis. As a result of the 2007 crisis, economic growth rates fell 1.5 times. At the same time, the state, in order to increase the income of the population, didn't utilize the mechanisms that could have absorbed internal demand, so their mechanisms turned into unproductive demand that stimulated not

[16] NBU data.
[17] NBU data.

only price hikes, but also import growth (the domestic economy could not meet the growing demand of the population due to low labor productivity and the inadequacy of its structure). The government's attempts to fight inflation in these conditions boiled down to the artificial binding of the monetary base, while it was necessary to fight the growing state budget deficit that was growing due to ungrounded social liabilities and expenses arising from them.

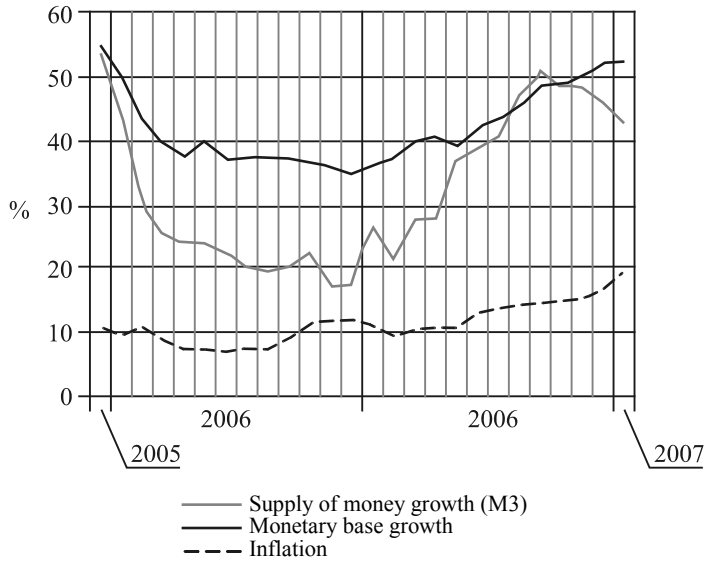


Figure 3.13. Growth Rates of Consumer Prices and Monetary Instruments in Ukraine in 2007

In general the course of development of the Ukrainian economy became further proof of the fact that its nature over the last decade transformed, unified and adapted to the part of the global market system that is based on basic market principles — it is one of the most liberal systems of the world, because it self-regulates and develops without state interference that is limited by a small number of classical macroeconomic leverages of influences, which is even smaller than that in other peripheral countries of the world, let alone developed countries. The share of public property in the structure of the national economy is at its minimum. The rapid and uncontrollable growth of capital through the redistribution of social resources in favor of a small entrepreneurial part of the society is also characteristic of wild capitalism. The consequences of such growth are the creation of more distinct social layers, an

unprecedented gap between incomes and standards of living of the rich and the poor in Ukraine (Annual Report.., 2007): in 1990, the ratio of the highest to the lowest level of income (due to social payments and social benefits) was on average 1:2; in 2000 the correlation of indicators (10% poorest and 10% richest) was at 1:30, in 2007 — 1:40, while in the countries of the EU this correlation varies from 1:5 to 1:7, in Japan it is 1:4 — 1:5, in Russia it is 1:25. In Ukraine the rich and very rich account for roughly 10% of the population, the middle class accounts for another 10%, while the poor and very poor make up the balance, i.e. 80% or the main bulk of the population. GDP in 2007 was at UAH 663 b (USD 131.2 bln), or USD 2,834 per capita, of which 80% of the value belongs to 10% of the rich and very rich who manage the social and economic life of society, public opinion and mass media and, thus, determine the course of further country development. While an important component of the process of social and economic transformation is not private interests but national support of reforms — the unity of the aim, public faith in its results and that the chosen way is right — all this assists transformations in Ukrainian society, and creates social and mental catastrophe, the consequence of which, is lack of faith among the public in the prospects of country development, which at the same time feeds corruption. The deepening of social disappointment is proved by the results of the research conducted by the Institute of Sociology of the National Academy of Sciences of Ukraine: 7% of the population believe in liberal values and the effectiveness of market self-regulation, while in 1990 it was 69%. 72% of the population are ready to use corruption schemes in different aspects of social life, because they don't believe in the possibility of change and the ability to confront the will of corrupt top officials. The share of those who link the future of the country to the European choice has also gone down: in 2004, the share was 69%, in 2007 it decreased to 31%. All these indicators started to decline, particularly after the Orange Revolution.

Obviously, due to such an attitude and the general status of the development of the national economy we shouldn't hope that the external world will react positively to the intention of Ukraine to integrate into the global space, especially on our own terms. Instead, WTO accession removed obstacles to access to the markets and therefore, any need to agree with the state before such agreements are made with businesses that have unlimited access to commodity markets and unlimited influence on domestic markets. This means that the country is losing its last chance to form the structure of its national economy on its own; at the same time, its positions on the global and European economic space are becoming weaker.

Under such conditions the European integration intentions of Ukraine are the only panacea to external threats. First of all, the EU will insist on certain strict requirements, the fulfillment of which will help improve the business climate in the country and define the rules of the game and achievements of market transformations; secondly, under certain conditions, integration links with the union and their intensification will help to take the national economy to the late industrial level of development; thirdly, intensified integration links with the EU is the only way of protecting the national economy within the WTO from the aggressive expansion of countries that are still using price and low-tech competitive advantages, because the EU can also suffer from it; EU patronage for Ukraine can open new opportunities for the construction of a new social format, that prior to this, due to objections of supra-national organizations could not be transformed at its own will, by turning them into a rational mechanism for stimulating social processes, economic and social regulation as well as means of macroeconomic balance. Using the experience and borrowing the best of social formats from the EU is linked to the hope of building a new mentality based on what for Ukraine are traditional values that are based on solidarity.

However, because the economic growth that has recently started is unstable and sensitive to domestic and external factors, Ukraine cannot count on European help in forming the structure-forming and stable core of the national economy — now Europe views Ukraine as a problem country that wants to be a leader but instead can only be a source of commodities and a market for consumer goods.

Such simplified motivations cannot provide full reciprocal diversification of economies and only contributes to the further peripheralization of the weaker. Even if we assume that the European Union is interested in a stable and booming partner, such partnership will start with the assessment of benefits. As for saturating the consumer market, we need to take into account the fact that high-tech products are determined by incomes as well as whether the country belongs to the high-tech developments stage. There is no doubt that such significant and constant political and macroeconomic risks narrow the possibility of EU-Ukraine cooperation. These risks determine both the structure of investment and the structure of product turnover.

Direct investment into the economy of Ukraine from the countries of the EU is still insignificant and their distribution among sectors follows a general trend — the biggest share goes to trade and services, while investors come from just several countries (Figures 3.14 and 3.15). Less than 12% of investment is used to develop production capacities.

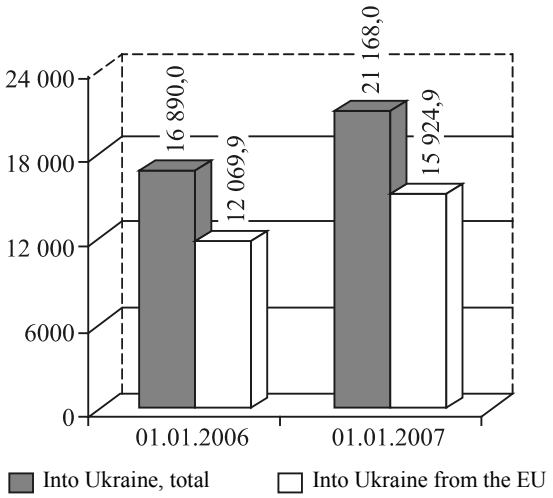


Figure 3.14. Foreign Direct Investment in Ukraine
(total and that from the EU, USD m)

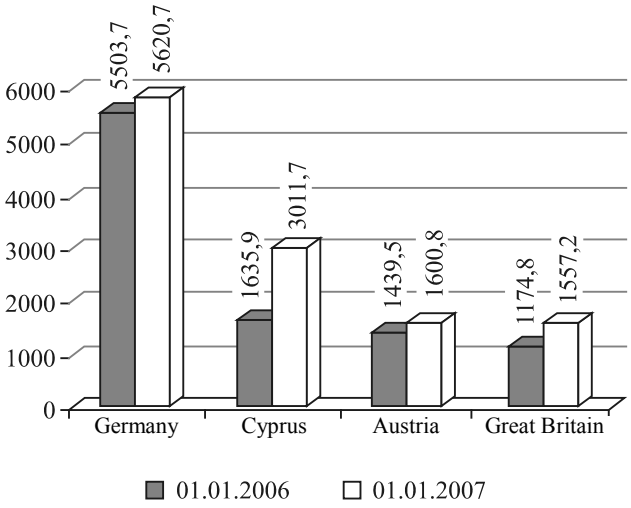


Figure 3.15. Foreign Direct Investment
from Individual EU Countries (USD m)

The trade structure with the EU does not favor production restructuring either: a large share of imports is in FMCG and some of these are products that Ukraine has traditionally been strong in. The example of Finland is very characteristic — it mostly exports telephones, radios, and

TVs to Ukraine (31% and 27%) rather than equipment (especially electrical equipment that the country is famous for); the share of telephones, radios, and TVs compared to 2004 grew by 80%, while the share of equipment and machinery decreased by 8%[18]. These trends clearly point to destructive imbalances in the foreign trade structure. They are also supported by the product structure of Ukrainian export to the countries of the EU, where in 2006 an important share was in ferrous metals (24.4%), energy sources, oil and oil products (13.4%), ores, slag and ashes (5.4%), textiles (4.8%), electrical machinery and equipment (4.4%), fats and oils (4.3%), ferrous metals products (3.9%).

Table 3.14

TEN MOST IMPORTANT PRODUCT CATEGORIES EXPORTED FROM FINLAND TO UKRAINE IN 2006

No.	Product category	EUR m	Share, %	Growth rate, (% of 2004)
1	Telephones, radio, TVs, etc	97.4	31	80
2	Paper, carton and their products	82.5	27	15
3	Other electric equipment and machinery	22.7	7	9
4	Specialized machines and equipment for different industries	18.4	6	–8
5	Paints and tanning materials	14.2	5	2
6	Plastic and unprocessed components	13.0	4	68
7	Industrial machinery and widely-used equipment	8.1	3	–33
8	Products made of base metals	6.3	2	27
9	Mineral oils and products	4.7	2	–14
10	Chemicals	4.2	1	19
Total for 10 largest categories		**271.4**	**87**	**27**
Export, total		**310.8**	**100**	**21**

On the one hand, such a structure that is characteristic of secondary economies is not promising for the future; on the other, it doesn't stimulate foreign investors and businesses to have long-term and deep economic relations with Ukraine.

[18] Based on the data released by the Customs Department of Finland (the data is obtained from the Department of Economic Cooperation of the Ministry of Foreign Affairs of Ukraine).

And although foreign trade between Ukraine and countries of the EU became more active (both exports of products from Ukraine and imports have increased), as of 2005, EU countries started to rapidly increase exports (compared to 2005, export grew by 18%, while imports grew by 31.5%), which increased the rade deficit to USD 4.744.6 b compared to a deficit of USD 2.6697 b. In 2005, the coefficient of export/ import coverage was 0.7, and in 2006, it was at 0.8. All this created new threats to the macroeconomic situation in the country. At the same time, there was growth in the volumes of services in foreign trade (major partners accounted for 65%), which improved the trade balance: foreign trade surplus for services was at USD 351 m (although in 2005 it was at USD 441.9 m). The share of services export to the EU in total volume was 29.6%, the share of import was 49% (in 2005, it was 28.1% and 43.8%, respectively). The largest share in the total volume of Ukrainian export in services to the EU was in transportation services (64.3%).

Here we need to note that most Ukrainian roads and highways do not meet European standards according to many criteria, such as speed of movement, load per axle, modern road signs, technical and medical assistance points, service stations, telephone connection, etc. There are almost no category one roads with high-speed multi-lane traffic. Road construction has been halted during the crisis in Ukraine; prior to this they were built at very low rates due to insufficient funds (Table 3.15). However, European investors are reluctant to invest into road renovation and construction in Ukraine, which makes integration between the EU and Ukraine less promising.

The situation is very similar with other means of transportation and the pipeline infrastructure (oil and gas): despite a certain dependence of European countries on the length and capacity of Ukrainian pipelines, these countries prefer to work with Russia and other countries.

Table 3.15

ASPHALT ROADS OF GENERAL USE WITH A HARD SURFACE, km

Indicator	year						
	1995	2000	2002	2003	2004	2005	2006
Road length	163,255	163,827	164,245	164,633	164,772	164,957	165,155

Negative aspects of foreign trade development and economic cooperation of Ukraine are caused by the low quality of economic transformation that affects Ukraine's participation in labor distribution. The most obvious and important factor that gained new importance and influences the integration parameters of the national economy into the European are constant government crises as well as the lack of a development strategy as well as a consistent economic policy.

3.5.6. Conclusions on the Improvement of the Economic Strategy of Ukraine

Despite domestic economic difficulties, Ukraine still has the internal potential for the creation of a competitive economy and improvement of its positions on foreign markets. Under certain conditions, it can be used for economic restructuring based on innovations.

Experts from the Ministry of Economy point out that even natural advantages can be turned into a source of innovative changes that are becoming ever more necessary (Ukraine is one of the leaders on the continent by the level of deposits and production of mineral resources).

Along with industries of late industrialization (mechanical engineering, energy production, etc), low-tech industries (metal production and extraction industries) are also threatened by foreign competitors — their price competitiveness is getting weaker. Therefore, in 2006-early 2007, Ukraine started innovative modernization, when the government set the target of the innovation-driven growth of the national economy and budgeted funds for the support of innovative initiatives. According to the data of the Ministry of Economy, in 2007 investment into new technology was roughly UAH 7 b, which is 80% higher than that in 2006. Innovations were introduced by 840 (8.3%) of 10,107 enterprises. Metal production spent most on innovation — they spent 40.2% of total investment; coke and oil producers spent 27.1%, mechanical engineering production accounted for 16.4%; in the past, the mechanical engineering industry was the leader.

These industries contribute most of the income of the country and can form the resource that will help them turn into development poles as the centers of demand formation for high technology. It is not just about modernization, it is about modernization based on high (post-industrial) technology, which hasn't been done in traditional industries yet. For Ukraine the penetration of post-industrialial trends into industrialism in such industries, is about survival and, at the same time, development of demand for high technology, which due to the multi-functionality of high technology and its ability to diversify (unlike low technology) and cause cumulative effect, will contribute to their adaptation to high-tech segments of the global economy.

However, we are not just talking of the innovation-driven modernization of production — it is a fundamentally new use of resource potential. For instance, Ukraine has significant scandium deposits, one of the rare-earth metals that are most promising for industrial implementation. According to the data of the National Academy of Sciences of Ukraine, the country has the largest deposits of scandium in Europe, and is placed among the top 5 world leaders.

Scandium alloys can become a unique competitive advantage of our country in both high-tech industries (air and space construction, military laser production) and in consumer goods production. These strong alloys can also be used in cryogen technology, scandium is used in dentistry and halogen lights. Scandium alloys can compete with titanium alloys — they are cheaper, lighter and not so fragile. Their use in the automobile industry helps make engines lighter, stronger and more reliable. Therefore, scandium gives the country a unique opportunity to attract foreign partners to innovative projects.

The innovative attractiveness of this resource is strengthened by innovations in extraction technology and alloy production that Ukrainian researchers have, but no other country has.

The situation in extraction and use of scandium is also characteristic of other common rare-earth metals. Ukraine can be seen as the geological center of Europe — it has almost all the geological structures of the continent. In addition to scandium, Ukraine has deposits of other precious, rare-earth and non-ferrous metals. The market value of this mineral base is estimated at USD 7.5 trillion (USD 150,000 per capita) (Institute of Geological…, 2007: 12). If these resources are processed with the use of high technology into high-tech products, their value increases significantly. Having such a base, Ukraine can create and develop an industry that can produce modern competitive products based on high technology and, at the same time, have a cumulative structure-forming role.

Ukraine is one of the five producers of strategic ilmenite ore (20% of world deposits) and extractors of this ore. Moreover, only Ukraine, China and the USA have a full cycle and innovative technology for the production of rolled titanium. In view of this, the country could become a leader in the production of this metal and products thereof.

Researchers of the Institute of Geological Sciences of Ukraine should also pay attention to the production of zirconium, because the world is experiencing a deficit in this product and its price is expected to increase by 10% per annum. Having established zirconium production, Ukraine could capture a good niche on global ceramics, glass and nuclear energy production markets. For now, Ukraine has just 3.5% of the market share.

The most rare metal in Ukraine is silicon, while in the past Ukraine supplied it to the USSR as well as developed countries, including countries of the EU, Japan and the USA. Having basically inexhaustible silicon deposits and a full high-tech production cycle, Ukraine is currently importing it, while its price has grown 2-3 fold over the past years (the current price is EUR 60-80 per kg, while production in Ukraine costs EUR 26-29). It could bring significant income to Ukraine, because

demand for silicon, according to analyst forecasts[19] will increase significantly. Today its consumption is growing due to the producers of cellular phones, computers, and TVs that Ukraine imports from Europe, but in the future, it is also supposed to be used in alternative energy production. Due to the growth of the world production of solar batteries, the world need for poly-crystal silicon in 2010 could exceed 30,000 tons, while production levels are forecast at 8,000 tons.

In this field, Ukraine has a number of competitive advantages that are characteristic of the latter stage of industrial development, but it cannot fully utilize its natural advantages, favorable market conditions and innovative production capacities. Domestic extraction and processing industries work inconsistently due to no vertical integration and integration cooperation with consumer countries. The innovative use of these resources and the products of innovation technologies, can become the basis for scientific and economic interaction with the countries of the EU.

Clearly, it is not just the prospect of increasing its presence on the global market that is attractive, but also the prospect of mastering alternative sources of energy production and eliminating dependence on traditional energy sources that continue to increase in price.

At the same time, Ukrainian resources remain attractive to other countries, which under certain circumstances creates the risk of the country transforming into a raw material appendage of the global economy. Therefore, the development of these strategic directions must be controlled by the state that owns the innovative technology.

Of course, we also need to take into account the fact that Ukraine has more than 25% of the most fertile soil in the world and has a favorable climate. The completion of the property reform and the technical re-equipment of the agro-industrial complex due to the global deficit and increase in food prices, will change Ukraine's position on agricultural markets. Moreover, large modernized food production enterprises produce goods that meet world quality standards and are in demand in Europe. This industry requires a strong state strategy and mechanisms: Ukraine's WTO accession rid it of a number of advantages that could help modernize this field. Moreover, the threat to the development of the agricultural complex is the increase in global demand for bio-fuel and raw material production, which narrows the opportunities for the production of food crops.

Ukraine is the largest natural gas transit country in the world and has a gas transportation system with a very high capacity: 290 b m^3 of input and almost 170 b m^3 of output (per annum). The development of these

[19] Nova Era (official representative of producers from the CIS in Ukraine; the largest supplier of machinery and spare parts in agriculture and automobile industries).

pipelines, that are interesting to the EU because there is no other alternative, can be done in cooperation with these countries, but on condition of domestic political stability.

Ukraine has significant potential in high-tech industries. Until recently it had a solid position among such countries as the USA, Russia, France, and China in air and space, it participated in a number of big international projects (Sea Launch, the creation of an international space station, joint project with Russia on the modernization of the CC-18 intercontinental ballistic missile, joint project with Brazil and Italy on the modernized Cyclone-4 launch vehicle). Ukraine is among the nine countries that manufacture military aircrafts and is part of the group of leading exporters of weapons and military and technical services. However, positive factors and potential do not guarantee export growth or quality changes in the structure of the national economy. Key conditions for success are the development and implementation of state strategy for the accelerated development of high-tech production and deep internal economic and political reforms.

CHAPTER 4
NATIONAL ECONOMY CONVERGENCE MECHANISMS AND INSTRUMENTS FOR POLAND AND UKRAINE

4.1. Poland — Ukraine: Opportunities for Cooperation in the Light of Real Processes

4.1.1. Introduction

There are a number of ways to analyse cooperation between neighbouring states. The simplest would be to demonstrate cooperation existing at the current stage. There may be another approach: to study neighbouring states — Poland and Ukraine — not only through their current economic and institutional status, but also through their long-term goals.

The second method seems more attractive both in theory and practice, at least in the long-term perspective. We shall focus on this approach. However, this analysis will not be entirely theoretical, as it is based upon the description of a real situation. Neither will it relate to a long-term prognosis, since it is merely an attempt at defining the goals to be pursued. To the extent possible, the analysis will depend primarily on political causalities, as well as, or first and foremost, on cultural, rather than economic factors. It will depend on that defined by Braudel as «collective mentalities».

4.1.2. Background

The reference point for the analysis is to accept two foundations, which are sufficiently valid not only for Poland, but also for Ukraine. However, it is to be first emphasised that the attitudes to the above mentioned states vary globally. At least in the sense that in Poland the foundation is not only more developed, but also irreversible, which so far is not valid for Ukraine.

Firstly, this is so, because the economic foundation is created by the market economy. Therefore, the developed foundation does not speak about the economic system, the economic model, the role of the state or, even more so, about the degree of economic freedom (Kowalik, 2005).

Secondly, this is so, because the political system, or institutional and legal order, is based upon a certain form of democracy (Shapiro, 2006). Since the democratic system, as well as the market economy, may take

various forms, similar both from a formal perspective and a real perspective, democracy theorists constantly stress the need to distinguish between these two approaches.

The specific nature of post-socialist states lies in an essential distinction from mature market capitalist economies. The distinction is in the simultaneous formation of a market capitalist economy and a democratic system (Kleer, 2005). Without analysing the reasons underlying such interweaving circumstances, one should take due notice of a number of relevant benefits and challenges.

In the introduction, we would like to graphically demonstrate both the nature of benefits and the nature of challenges, which are in action simultaneously (Chart 4.1).

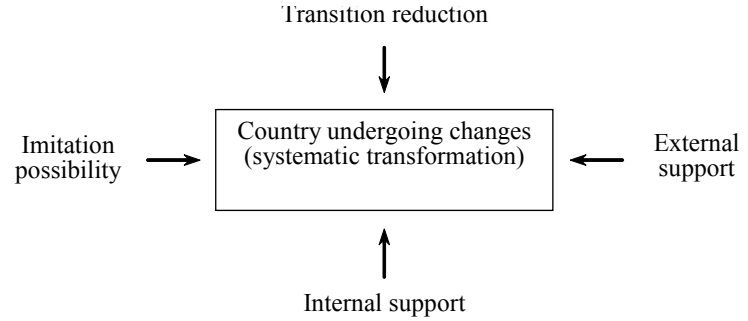


Chart 4.1: A Quadrangle of Benefits for the Simultaneous Establishment of a Democratic System and a Market Capitalist Economy

Source: Developed by the author.

Without scrutinising such dependences, one should pay due attention to four key distinctions between Poland and Ukraine.

In the author's opinion, the first distinction is paramount. Poland, which belonged to the socialist system, was a moderately independent state, while Ukraine was integrated into the Soviet Union.

The second distinction is that Poland's economy and social-political space had been actively eroding from the second half of the 1950s, intensifying in the 1980s. Meanwhile, Ukraine was characterised by a great institutional and legal accord with the traditional socialist system. The degree of erosion was minimal (Bąk, 2006).

The third distinction lies in the external and internal support of the transformation process, which was significantly stronger in Poland than in Ukraine.

The forth distinction lies in the speed of transformational changes, which was considerably greater in Poland than in Ukraine. The reasons underlying this were not only external, but also internal. Poland was substantially more ethnically homogenous and the degree of openness was significantly greater than in Ukraine.

In this context, the statement related to the simultaneous creation of a market economy and a democratic system needs supplementing. Indeed, the economic and political processes were simultaneous, however one should not forget that, first and foremost, the pace differed and, secondly, public acceptance of such processes differed as well, which is attributed to another evolutionary nature of the process of creating the institutional foundation for a new economic and political system (Wilkin, 2007).

In addition to numerous benefits, the simultaneous and rapid pace of creating a market economy and a democratic system has a number of inadequacies (Chart 4.2).

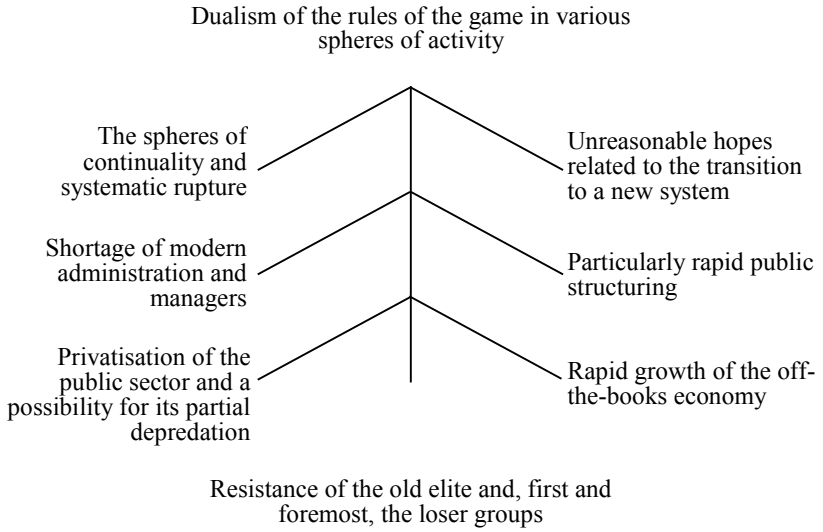


Chart 4.2 Inadequacies of the Simultaneous Transition to a Democratic System and a Market Economy

Source: Developed by the author.

The above mentioned phenomena are typical of any transformation, however on a different scale. It depends primarily on four processes:

- The proliferation of the new rules of the game, above all in the economy;

- The extent of the adaptation of individual public groups to the fundamentals of the new system;
- The economic and ideological orientation represented by the political actors in power;
- The speed and extent of society differentiation (Kleer, 2007).

An in-depth analysis of the above mentioned inadequacies as relevant to Poland and Ukraine is beyond the scope of this research. Therefore, we will only refer to a number of examples, which vividly illustrate the factors exacerbating potential inadequacies.

The initial point for the analysis is GDP per capita in 1989. Distinctions between the two countries were not great at that time: USD 5,150 and USD 5,680 for Poland and Ukraine respectively. Transformational processes started vigorously increasing the gap between the two figures. Indeed, the transition to a new system always generates a so-called transformational crisis; however, the transition was different in the two countries both in terms of depth and duration.

In Poland the crisis, if measured in terms of duration, ended in 1992, with sustained GDP growth. In Ukraine, instead, the decline continued until 1999. The decline there was significantly worse than in Poland. The GNI (gross national income) in 2005 amounted to USD 7,110 and USD 1,529 in Poland and Ukraine respectively (Atlas of Global Development, 2007). Thus, with an almost identical initial level in 1989, 15 years later the gap increased almost 5 times to the benefit of Poland. The real gap must be somewhat smaller, since Ukraine has consumption in kind (extra-market) and the sphere of off-the-books transactions (shadow), the share of which is greater than that of Poland.

In addition, one should note that, as immediately related to the above, as early as in 1996, Poland managed to reach the level of 1989, which does not hold true for Ukraine.

The next question to be considered in this context relates to the degree of income differentiation measured by the Gini index. Indeed, both in Poland and Ukraine it has a tendency to grow; however, there are essential distinctions between the two. The data referred to below relates to 2001; however, it can be assumed that the values have not fallen. The Gini indices for Poland and Ukraine were 34.1 and 45.2 respectively. Among all European post-communist states and post-Soviet states, only the Gini index for Russia was higher than that of Ukraine (Bąk, 2006).

An important conclusion originates from the above mentioned differentiation.With such a great income differentiation, it is hard to believe that the transformation was sufficiently supported by the public. According to the data of the State Statistics Committee of Ukraine, 40 % of households were satisfied with the transformation. Also in Poland,

according to Kornai (2005), with a significantly lower profit differentiation, a positive assessment of socialism was comparatively high. Such a great distinction means that there emerged a considerable social group in Ukraine that rapidly accumulated wealth in the process of chaotic privatization. The above may be confirmed by the thesis that the rapid process of a spontaneous and chaotic transformation stiffened resistance to the rules of the market economy; the old administration contributed as well. However, it is also true that the old establishment also rapidly joined in the acquisition of property benefits.

It is also important to look at the start of the transformation in terms of the private sector share in the GDP produced. At the beginning of the transformation (1989), the relevant share in Poland exceeded 45 % of GDP, while in Ukraine it stayed within the limits of 15—20 %. However, as early as in the middle of the 1990s, the indicator grew to 60 % and is now slightly behind that of Poland. This meant that the chaotic transition to market relations in Ukraine occurred at an extremely rapid pace, which contributed to the failure to abide by market rules and legal procedures. However, the problem was relevant not only to Ukraine, but also to Poland.

4.1.3. Transformation Effects

Transformation effects may be analysed from various perspectives, specifically in terms of social, political or economic consequences.

The selection depends to a greater extent on the purpose or objectives of the analysis. Since the entire monograph text is intended to give answers to questions pertaining to the economic cooperation of Poland and Ukraine, it seems reasonable to analyse the transformation effects in terms of the economic and political rules of the game. Firstly, whether they guarantee stability; secondly, whether the rules are transparent; finally, to what extent they are compatible with the modern market economy and the democratic system.

At the beginning, we should tackle a number of questions related to the role of the state.

Modern theoretic trends in economics apply different approaches to the role of the state in the economy. Without analysing such approaches, but guided by the experience of the current global economy, it is possible to arrive at the conclusion that there is no rigid rule for determining optimal proportions between the state and the market. As Professor Jerzy Wilkin (2007, page 42) writes, «We may observe rapid economic development and high quality of life in countries with various proportions of the state and market and thus, there is no rigid rule that would guarantee economic progress in the long-term».

If we look at the recent experience of Poland and Ukraine from that perspective, we will see that though being different and often opposite, with a certain great simplification, it can be reduced to a common denominator. Such common denominator lies firstly, in the lack of explicit delimitations between that which should belong to the state's competence (possibly, public sector) and that which should belong to the market sphere; secondly, the rules of the game imposed by the state (state institutions) are very volatile; thirdly, there is a strong bond between the political and economic spheres.

One definitely should try to derive a common denominator for both states; however, this does not imply that the situation in the two countries is identical. The distinctions are not only numerous, but also qualitative.

If we divide transformation into several stages, the first stage will include the development of a foundation for the market economy and democratic system. Poland passed that stage long ago, and the basis of its market economy and its democratic system has become irreversible, while the transformation, at least in the principal sphere, has been completed, by virtue of Poland's accession to the European Union. The current phase is characterised by the creation of institutional frameworks ensuring the complete integration of Poland into the EU.

From this perspective, Ukraine is still at the initial stage, which includes the development of a foundation for the market economy and democratic state.

The major problem of the state is the lack of explicit delimitations between that which lies within the state's competence and that which should belong to the market sphere. Such peculiar interweaving, with the state constantly playing a dominant role not only with regard to resources, is unacceptable in a developed society.

Proceeding to somewhat selective quantitative illustrations, we would like to divide them into two groups. The first, more generic group relates to the standing of Poland and Ukraine in the global economy, i.e. it demonstrates how free and business-friendly the market economy presently is; the second group demonstrates the ranking of the states in the process of transformation and democratization among 29 states in transition to a market economy (European post-socialist states and post-Soviet states). The paramount or, to be more precise, the most ponderous and widely used indicator in the first group is the index of economic freedom annually published by the World Bank. It covers a great number of states and includes 150-180 states of the total number into the calculations depending on the year.

It includes all post-socialist states; however, for the purposes of the analysis given below, we will limit ourselves to Poland and Ukraine (Table 4.1).

Table 4.1

POLAND AND UKRAINE RANKING FROM THE INDEX OF ECONOMIC FREEDOM

State	2005*	2006	2007
Poland	54	74	75
Ukraine	124	132	128

* The 2005 Ranking relates to only 155 states. Doing Business 2006, 2007, page 110.

Source: Doing Business 2006, 2007, page 8.

If we recognise the index as an important illustration pertaining to the development opportunities for a market economy, we may formulate certain conclusions. Distinctions between Poland and Ukraine in the sphere of economic freedom are gigantic; however, this does not imply that, with Poland's preponderance, this sphere is satisfactory in Poland. Quite the opposite, the data referred to above is not sufficient for a more profound analysis; however, it still demonstrates that the ranking achieved may both improve and deteriorate.

In this context, one should pay attention to a more general issue: there is no simple relation between economic maturity measured, for instance, by GDP per capita and the degree of economic freedom. For example, Lithuania and Estonia rank higher than Belgium, Germany, the Netherlands, or Austria. However, for a state with the legacy of a social system the issue of acquiring a broad sphere of economic freedom is primarily related to the degree of business development, business creativeness and foreign ties, both economic/technical and ideological.

This can be illustrated by one indicator that is extremely important for entrepreneurs — the taxation system. The Paying Taxes, 2008, report has been drafted for 178 states; Poland and Ukraine rank 125 and 177 respectively. Poland ranks 26 among EU countries.

The above mentioned information is a certain illustration of this sphere of the market economy, which interests entrepreneurs. It is important for the solidification of the foundation for the market economy and business development, while its imperfection contributes to the transition of large and medium-sized businessmen to the shadow sphere.

We would like to review the indices of systemic transformation and democracy for 1989—2006 (Kondratowicz, Postępska, 2007). However, first, one should be warned about two things. As in any index analysis, the range of data is not only limited, but also, which is extremely important, selective. At the same time, it is suitable for general description, which is important for comprehending what is going on in

one state as compared to other states and how such state perceives this. This does not imply that every state must develop by the same trajectory, since two important and isolated factors determine its specific nature. The first factor is the size of the state; the second factor is the state's historic traditions and cultural system.

It is a universally recognised fact that a large state should have a development strategy different from that of a small one for two reasons: the economy of a small state, as it arises from its nature, has or should have a more open nature of the economy as compared to that of a large state. The former is generally forced to ensure something defined as «cost-efficient minimal economic independence». However, on the other hand, a large state is characterized by a significantly greater regional differentiation than a small one. Therefore, it should also adopt a certain strategy for its regional policy to reduce distinctions, which will lead to a greater influence of the state, or let the market tackle the issues.

However, the state's historic traditions and its cultural system are important as well. To a certain extent, the past shapes not only the present, but also the future. The cultural system, which constitutes a particular conglomerate of homogeneity or ethnic differentiation and the level of tolerance, also essentially impacts domestic policy. The latter has the strong support of the democratic system and market economy, particularly with regard to its openness. However, the inhibition of the pace of changes by the former elite and administration may be great or restricted (Sztompka, 2005).

We would like to go back to the previously mentioned ranking related to transformation and democracy. The annexes following Section 4.1 present extended components of the ranking.

The Bertelsmann Transformation Index is one of a number of rankings and is distinctive from the others in the allotted values. However, all the assessments demonstrate a similar conclusion: distinctions between Poland and Ukraine, both in the democracy status and market economy, are rather critical (Table 4.2). If we apply a quantitative assessment, we will see that relevant values for Poland are twice as high as those for Ukraine. If we analysed relevant data over a longer time span, we would see that Ukraine has made a better relative progress than Poland. This is the first conclusion.

One may also arrive at the following conclusion, which does not result from a more general review. Two states, which differ in terms of the maturity of their democratic and market institutions, may cooperate economically. Economic cooperation between states with mature market and democratic institutions is more stable and transparent, as well as, to a lesser degree, dependent on the volatile political climate; however, this does not mean that economy-wise it will always be more effective.

Table 4.2

BERTELSMANN TRANSFORMATION INDEX (BTI). VALUES FOR THE MANAGEMENT INDICES AND TRANSFORMATION STATUS, INCLUDING COMPONENTS (2005*)

Ranking	Countries	Status of Democracy	Status of Market Economy	Status Index
7	Poland	9.26	8.61	7
13	Ukraine	6.96	6.82	13

* 28 post-socialist states, all European post-socialist states, post-Soviet states and Mongolia have been analyzed.

Source: Kondratowicz, Postępska, 2007, page 86.

4.1.4. The Economy and Economic Structure

There are two ways to present the economic ties between Poland and Ukraine. The first one demonstrates the sphere of relations which primarily goes through the channels of foreign trade and other forms of relations that are not always statistically covered. The nature of such connections may be analysed through the lens of potential opportunities, which are deeply solidified in these economies.

In any case, the reference point would be an attempt at elaborating on the economic and human potential of interaction between states and, furthermore, on the place in the global system of relations.

Paramount indicators from this perspective are presented in Table 4.3.

Table 4.3

ECONOMIC-DEMOGRAPHIC POTENTIAL OF POLAND AND UKRAINE (2005)

Ref No.	Indicator	Poland	Ukraine
1	Territory, square kilometres	312,685	603,628
2	Population, thousands	38,161	47,075
3	GDP, billion USD (2004)	252.7	65
4	GDP per capita, USD (at current prices), 2004	6,618	1,384
5	GDP per capita at purchasing power parity, 2004	13,089	6,571
6	Share in world trade, %: Import Export	 1.0 0.9	 0.4 0.4
7	Import per capita, USD Export per capita, USD	2,660.8 2,342.1	767.6 727.1

Source: International Statistical Yearbook 2006, GUS, Warsaw 2007.

The presented values give a statistical picture reproducing the state of affairs over a period of one year, however, not disclosing the past and

thus, not permitting anticipation of the future. Still, the picture is important for more general contemplations.

From the theoretical perspective, one may assume that middle-sized neighbouring countries have or should have extensive and deep economic ties. In fact, such states never have entirely open economies, since they have to develop sufficiently extensive contacts to specialise in the most effective spheres under existing conditions; and, furthermore, to sweeten the offer for their own producers and, finally, consumers, in order to interact in current innovative and possibly, future undertakings.

Theoretical opportunities are not always related to practical decisions. We may explicitly see this if we review the Polish-Ukrainian experience. The countries have a common border: for Poland this is the second longest border (after the border with the Czech Republic), while for Ukraine it is the fifth longest border after the ones with Russia, Moldova, Belarus and Romania. The border has no effect on the intensity of economic ties, at least official ones.

Ukraine's share of imports and exports in Polish foreign trade amounts to 1% and 3.6 % respectively (data for 2006); while in 2005, imports from Poland and exports to Poland amounted to 3.2 % and 2.8 % respectively. Thus, analysing the values, one can reach the conclusion that the values are small and very unsatisfactory. In the past ten years, the values changed by a fraction of a percent. However, if we had additional data about small-scale cross-border trade and about shadow transactions, the above share would possibly have been slightly larger. One should also take into account several hundred thousand citizens of Ukraine working legally, semi-legally or illegally in Poland. However, even that will not essentially affect official statistics.

In view of the above, it is natural to enquire: what are the reasons for such a weak interaction of the Polish and Ukrainian economies? The answer to this question is of paramount importance not only for the present, but also and, first and foremost, for the future.

After considering the issue from a broader perspective, we can ascertain that the answer is associated with three major circumstances.

The first pertains to the past and is related to the system of ties developed under socialism.

The second pertains to the transformation process, forms and, first and foremost, consequences in the social and economic sphere; the third is an effect of the economic development level and the lines of the re-orientation of economic ties under the new conditions.

Under socialist economy conditions, Ukraine was not a sovereign state, but rather functioned as an integral part of the Soviet Union. This affected both the nature of its ties and the legacy of its economic structure. The collapse of the Soviet Union and the transformation did not

bring any changes to the key lines of its ties. This was different for Poland, which, while initiating the transformation, made resolute steps towards a major reorientation of its foreign ties (Table 4.4).

Table 4.4

KEY PARTNERS IN THE FOREIGN TRADE OF POLAND AND UKRAINE

Country	Year	First Partner	Imports	Exports
Poland	1985	USSR	34.4	28.4
	1990	Germany	20.1	25.1
	1995	Germany	26.6	38.3
	2005	Germany	24.7	28.2
Ukraine	1995	Russia	53.3	43.4
	2005	Russia	37.1	17.6

Source: Statistical Yearbook of Foreign Trade, 2007, p. 35; International Statistics Yearbook, 2006, 2007, page 48.

With the start of the transformation, export-import relations between Poland and Ukraine changed completely, since Poland reduced its commercial ties with post-Soviet states to a minimum. In 2005, the share of imports from the states of the former USSR amounted to 12.4 %, while exports amounted to 7.3 %. There may be a number of interpretations as to the sudden restriction of commercial ties. From Poland's standpoint, the old international division of labour was entirely destroyed. While for Ukraine, just like in the past, such ties have been maintained, even though in past years they were indeed subjected to some essential modifications.

In this context, it is possible to formulate the following conclusion: the nature of foreign relations always influences domestic decisions. If foreign relations are of a fully market nature, they influence or can influence the nature of market transformations in the domestic economy. Therefore, the reorientation of economic relations plays a crucial role in transformation.

We previously partially covered the forms of transformation in Poland and Ukraine; however, we still need to emphasise that, firstly, the institutional and legal order corresponding to the needs of the market economy was established in Poland long ago, which, unfortunately, is not the case for Ukraine. Secondly, in both cases the state has a considerable impact on the economy; however, there are qualitative distinctions between Poland and Ukraine from this perspective.

The answer to the third question is the most challenging. The answer is made up of two different components. The first component is more of a theoretical nature; the second component is more related to the real sphere.

The first component relates to the cooperation between the economies differing in their development levels. If as a criterion we take an economic

indicator measured, for instance, by GDP per capita, i.e. the most reasonable indicator measured by purchasing power parity, we will see that the difference between Poland and Ukraine is twofold. In fact, such type of distinction does not indicate that no cooperation, first and foremost a profitable one, is possible. The practice of many states demonstrates that such cooperation may become and often becomes a factor stimulating economic development. However, this would require that at least two conditions have to be met.

The first relates to the type of economy, i.e. how imitative and innovative the economy is. Generally, a more developed economy is the most innovative, while a less developed economy may not take advantage of its innovativeness. Unfortunately, from this perspective both our economies are of an imitative nature. If we accept research and development related costs as one of the critical measurements, we will see that in the past ten years such costs never exceeded 1 % of the GDP; thus, modernization was primarily a product of external factors.

The second condition relates to the structure of exchange between the countries. If we look at the structure of imports and exports between Poland and Ukraine from this perspective, we will see that it is to the least degree pro-developmental (Table 4.5).

Table 4.5

STRUCTURE OF IMPORTS FROM UKRAINE TO POLAND AND EXPORTS TO UKRAINE (2006)

Indicator	Imports, USD thousands	%	Exports, USD thousands	%
Total	1,319,438	100	3,967,792	100
Food and live animals	64,921	4.9	193,840	4.9
Beverages and tobacco	1,695	0.1	7,994	0.2
Crude materials, inedible, except fuels	258,558	19.6	33,910	0.8
Mineral fuels, lubricants and related materials	121,684	9.2	147,221	3.7
Animal and vegetable oils, fats and waxes	36,010	2.7	2,057	0.05
Chemicals and related products	171,094	12.9	495,446	12.5
Manufactured goods classified chiefly by material	588,693	44.6	1,202,896	30.3
Machinery and transport equipment	54,207	4.1	1,449,140	36.5
Miscellaneous manufactured goods	21,681	1.6	435,071	10.9

Source: Yearbook of Foreign Trade Statistics 2007, page 129.

The commodity pattern of imports and exports demonstrates that this exchange, irrespective of low values, does not seem to have been, at least for Poland, a significant stimulus for economic development.

4.1.5. What Awaits in the Future?

It is not easy to give a specific answer to a question formulated in such a manner, since anticipating the future includes not only extrapolation based upon existing tendencies, but also changes that may occur.

Outlining mutual economic and political relations between Poland and Ukraine is complicated, since the conditionality of such cooperation has not been explicitly outlined yet. The preceding years do not permit an outline of explicit directions for changes, particularly those pertaining to the opportunity for enhanced cooperation. The previous restricted economic relations and more or less incidental political cooperation do not create an adequate basis for extrapolating future tendencies.

Under certain conditions, close economic cooperation may obviously be intensified. The identification of both threats and opportunities for the two states is important.

The starting point is the identification of threats or, more specifically, obstacles limiting opportunities for cooperation.

The nature of the major obstacles is institutional and legal, as well as, to a lesser extent, economic. In fact, Poland's and Ukraine's economic structures are only complementary in nature; nonetheless, the opportunities for creating conditions for such cooperation are always a by-product of political will. One can distinguish between four groups of conditions that create potential opportunities for developing economic cooperation.

We shall name the groups according to the hierarchy of their significance. The first group is related to the institutional and legal order. Such order should be distinctive in the following: stability of legal decisions, transparency of the rules of the game and, first and foremost, a great degree of economic freedom, including for foreign capital.

The second group pertains to the climate for economic cooperation developed by the government. This is of essential significance, since, depending on whether such climate is negative or positive, it will either attract or repel potential contractors.

The third condition relates to the attractiveness of co-initiatives. Fundamentally speaking, with the potentials that Poland and Ukraine represent or, to be more specific, may represent, there is a rather great prospect for the development of interrelations between the countries.

The fourth one, in our opinion, is the most challenging one, as it is associated with the need for a rather essential re-orientation of foreign trade. Such re-orientation is not possible at this stage for two reasons: Poland is a member of the European Union and another re-orientation is impossible and, furthermore, impractical. The question as to the extent of

Poland's unutilized export capacities remains open. There is no comprehensive information on this matter. However, there is another, even more important reason. Poland, as previously, does not have technological potential that would allow it to essentially modernise Ukraine's economy.

Thus, one should think that the economic cooperation will develop gradually, with more and more previously unengaged industries involved.

Annex I

POLAND

Ref. No.	Indicator	Measurement units	Scale
1	GDP, constant prices	National currency	Billion
2	GDP, constant prices	Annual growth	—
3	GDP at official exchange rate	National currency	Billion
4	GDP at official exchange rate	USD	Billion
5	GDP, deflator	Index	—
6	GDP per capita, constant prices	National currency	—
7	GDP per capita, constant prices	National currency	—
8	GDP per capita, constant prices	USD	—
9	GDP (PPP)	USD	Billion
10	GDP (PPP) per capita	USD	—
11	GDP (PPP) per capita, % of global	Percent	—
12	Exchange rate (PPP)	National currency exchange rate against the USD	—
13	Inflation, annual consumer prices	Index, 2000 = 100	—
14	Inflation, annual consumer prices	Annual changes, %	—
15	Inflation, end-of-period consumer prices	Index, 2000 = 100	—
16	Inflation, end-of-period consumer prices	Annual changes, %	—
17	Population	Persons	Million
18	Current account balance	USD	Billion
19	Current account balance	% GDP	—

Indicator	1989	1990	1991	1992	1993
1	554.36	514.51	478.56	488.29	509.22
2	3.80	–7.20	–7.00	2.00	4.30
3	9.63	58.98	85.14	120.93	163.97
4	66.90	62.08	80.45	88.71	90.37
5	1.74	11.46	17.79	24.77	32.20
6	14,651.00	13,471.45	12,495.00	12,715.80	13,221.31
7	254.41	1,543.96	2,223.02	3,149.08	4,257.26
8	1,767.95	1,625.24	2,100.56	2,310.23	2,346.24
9	234.75	226.33	217.84	227.38	242.60
10	6,204.06	5,924.82	5,687.59	5,921.23	6,298.80
11	0.93	0.84	0.77	0.77	0.79
12	0.04	0.26	0.39	0.53	0.68
13	1.44	9.87	16.80	24.03	32.51
14	251.10	585.80	70.30	43.00	35.30
15	6.14	11.46	18.38	26.54	36.55
16	27.70	86.50	60.30	44.40	37.70
17	37.84	38.20	38.30	38.40	38.52
18	–1.23	1.19	–0.29	0.86	–1.16
19	–1,80	1.90	–0.40	1.00	–1.30

Indicator	1994	1995	1996	1997	1998
1	535.90	571.95	607.64	650.70	683.11
2	5.20	6.70	6.20	7.10	5.00
3	235.64	337.22	422.44	515.35	600.90
4	103.68	139.10	156.66	157.08	172.00
5	43.97	58.96	69.52	79.20	87.97
6	13,885.09	14,819.36	15,731.99	16,835.80	17,668.17
7	6,105.40	8,737.45	10,937.03	13,333.97	15,541.84
8	2,686.41	3,603.96	4,056.01	4,064.24	4,448.53
9	260.74	283.97	307.41	334.67	355.24
10	6,755.63	7,357.70	7,958.90	8,659.06	9,187.94
11	0.80	0.83	0.85	0.87	0.89
12	0.90	1.19	1.37	1.54	1.69
13	42.98	54.96	65.90	75.71	84.65
14	32.20	27.90	19.90	14.90	11.80
15	47.38	57.62	68.28	77.29	83.94
16	29.70	21.60	18.50	13.20	8.60
17	38.60	38.60	38.62	38.65	38.66
18	5.48	0.85	–3.26	–5.74	–6.90
19	5.30	0.60	–2.10	–3.70	–4.00

Continuation of Annex I

Indicator	1999	2000	2001	2002	2003
1	714.02	744.38	753.35	764.22	793.77
2	4.50	4.30	1.20	1.40	3.90
3	665.60	744.40	779.50	808.60	843.10
4	167.76	171.27	190.41	198.21	216.80
5	93.22	100.00	103.47	105.81	106.21
6	18,489.05	19,357.72	19,696.30	19,989.91	20,776.89
7	17,216.63	19,358.30	20,380.10	21,150.74	22,068.05
8	4,339.42	4,453.87	4,978.16	5,184.64	5,674.63
9	376.68	401.26	415.83	429.20	455.28
10	9,743.41	10,434.74	10,871.96	11,226.67	11,916.91
11	0.90	0.89	0.88	0.87	0.87
12	1.77	1.86	1.88	1.88	1.85
13	90.83	100.00	105.50	107.51	108.37
14	7.30	10.10	5.50	1.90	0.80
15	92.17	100.00	103.60	104.43	106.20
16	9.80	8.50	3.60	0.80	1.70
17	38.66	38.45	38.25	38.23	38.21
18	–12.49	–9.98	–5.38	–5.01	–4.60
19	–7.40	–5.80	–2.80	–2.50	–2.10

Indicator	2004	2005	2006	2007	2008
1	836.19	866.44	919.55	980.24	1,032.10
2	5.30	3.60	6.10	6.60	5.30
3	924.54	983.30	1,057.86	1,158.87	1,251.26
4	253.02	303.98	340.97	413.31	444.24
5	110.57	113.49	115.04	118.22	121.24
6	21,900.06	22,702.15	24,109.06	25,751.68	27,168.37
7	24,213.84	25,764.20	27,735.16	30,444.50	32,937.50
8	6,626.67	7,964.70	8,939.62	10,858.06	11,693.94
9	493.40	527.77	577.80	631.83	676.60
10	12,922.23	13,828.36	15,148.96	16,596.77	17,815.82
11	0.87	0.86	0.86	0.85	0.85
12	1.87	1.86	1.83	1.83	1.85
13	112.15	114.53	115.71	118.21	121.42
14	3.50	2.10	1.00	2.20	2.70
15	110.88	111.65	113.22	116.22	119.84
16	4.40	0.70	1.40	2.70	3.10
17	38.18	38.17	38.14	38.07	37.99
18	–10.68	–5.11	–7.97	–15.14	–22.73
19	–4.20	–1.70	–2.30	–3.70	–5.10

Annex II

UKRAINE

Ref. No.	Indicator	Measurement unit	Scale
1	GDP, constant prices	National currency	Billion
2	GDP, constant prices	Annual growth	—
3	GDP at official exchange rate	National currency	Billion
4	GDP at official exchange rate	USD	Billion
5	GDP, deflator	Index	—
6	GDP per capita, constant prices	National currency	—
7	GDP per capita, constant prices	National currency	—
8	GDP per capita, constant prices	USD	—
9	GDP (PPP)	USD	Billion
10	GDP (PPP) per capita	USD	—
11	GDP (PPP) per capita, % of global	Percent	—
12	Exchange rate (PPP)	National currency exchange rate against USD	—
13	Inflation, end-of-period consumer prices	Index, 2000 = 100	—
14	Inflation, end-of-period consumer prices	Annual changes, %	—
15	Inflation, end-of-period consumer prices	Index, 2000 = 100	—
16	Inflation, end-of-period consumer prices	Annual changes, %	—
17	Population	Persons	Million
18	Current account balance	USD	Billion
19	Current account balance	% GDP	—

Indicator	1989	1990	1991	1992	1993	1994
1	N/A*	N/A	N/A	206.49	177.12	136.48
2	N/A	N/A	N/A	N/A	–14.20	–22.90
3	N/A	N/A	N/A	0.05	1.48	12.04
4	N/A	N/A	N/A	20.78	29.66	36.48
5	N/A	N/A	N/A	0.02	0.84	8.82
6	N/A	N/A	N/A	3,966.76	3,390.20	2,629.72
7	N/A	N/A	N/A	0.97	28.38	231.94

Continuation of Annex II

Indicator	1989	1990	1991	1992	1993	1994
8	N/A	N/A	N/A	399.27	567.62	702.85
9	N/A	N/A	N/A	332.65	291.91	229.72
10	N/A	N/A	N/A	6,390.15	5,587.47	4,426.22
11	N/A	N/A	N/A	1.13	0.95	0.71
12	N/A	N/A	N/A	0.00	0.01	0.05
13	N/A	N/A	N/A	0.01	0.58	5.78
14	N/A	N/A	N/A	N/A*	4,734.9	891.20
15	N/A	N/A	N/A	0.03	2.56	12.83
16	N/A	N/A	N/A	N/A	10,155.00	401.10
17	N/A	N/A	N/A	52.06	52.24	51.90
18	N/A	N/A	N/A	–0.82	–0.85	–1.16
19	N/A	N/A	N/A	–3.00	–2.90	–3.20

Indicator	1995	1996	1997	1998	1999	2000	2001
1	119.90	107.86	104.63	102.59	102.36	108.35	118.27
2	–12.20	–10.00	–3.00	–1.90	–0.20	5.90	9.20
3	54.52	81.52	93.37	102.59	130.44	170.07	204.19
4	37.02	44.60	50.15	41.89	31.57	31.26	38.01
5	45.47	75.58	89.23	100.00	127.43	156.96	172.65
6	2,328.11	2,110.67	2,067.83	2,043.69	2,051.36	2,214.72	2,440.68
7	1,058.57	1,595.28	1,845.16	2,043.69	2,614.07	3,476.27	4,213.83
8	718.89	872.74	991.09	834.5	632.64	639.00	784.38
9	205.94	188.76	186.17	184.57	186.82	202.05	225.84
10	3,998.74	3,693.99	3,679.25	3,676.61	3,743.82	4,130.03	4,660.58
11	0.60	0.52	0.48	0.46	0.44	0.45	0.48
12	0.27	0.43	0.50	0.56	0.70	0.84	0.90
13	27.53	49.62	57.50	63.58	78.00	100.00	111.96
14	376.40	80.20	15.90	10.60	22.70	28.20	12.00
15	36.11	50.46	55.56	66.67	79.48	100.00	108.12
16	181.40	39.70	10.10	20.00	19.20	25.80	6.10
17	51.50	51.10	50.60	50.20	49.90	48.92	48.46
18	–1.15	–1.18	–1.34	–1.30	1.66	1.48	1.40
19	–3.10	–2.70	–2.70	–3.10	5.30	4.70	3.70

* N/A — no data is available.

Final part of Annex II

Indicator	2002	2003	2004	2005	2006	2007	2008
1	124.43	136.33	152.80	156.92	168.06	179.32	189.10
2	5.20	9.60	12.10	2.70	7.10	6.70	5.40
3	225.81	267.34	345.11	441.45	537.67	662.54	767.39
4	42.39	50.13	64.88	86.14	106.47	131.20	151.96
5	181.48	196.10	225.86	281.32	319.92	369.47	405.82
6	2,592.03	2,862.72	3,231.71	3,343.78	3,602.95	3,867.72	4,103.27
7	4,704.03	5,613.82	7,299.22	9,406.71	11,526.54	14,289.99	16,651.88
8	883.12	1,052.72	1,372.29	1,835.46	2,282.48	2,829.70	3,297.40
9	241.75	270.51	311.90	330.67	365.33	399.87	428.97
10	5,036.00	5,680.26	6,596.76	7,046.08	7,831.91	8,624.46	9,308.48
11	0.49	0.52	0.55	0.54	0.54	0.53	0.52
12	0.93	0.99	1.11	1.34	1.47	1.66	1.79
13	112.81	118.68	129.41	146.90	160.16	178.50	197.77
14	0.80	5.20	9.00	13.50	9.00	11.50	10.80
15	105.52	114.22	128.16	141.48	157.92	175.29	193.86
16	–0.60	8.20	12.20	10.40	11.60	11.50	10.60
17	48.00	47.62	47.28	46.93	46.65	46.36	46.08
18	3.17	2.89	6.91	2.53	–1.62	–4.53	–9.40
19	7.50	5.80	10.60	2.90	–1.50	–3.50	–6.20

Annex III

BERTELSMANN TRANSFORMATION INDEX (BTI), MANAGEMENT INDEX AND STATUS INDEX, INCLUDING COMPONENTS, 2005

Ref. No.	Country	Region	*S*	*SI*	*Q*1	*Q*2	*Q*3	*Q*4	*Q*5
1	Slovenia	1	9.45	9.55	9.8	10.0	9.5	9.5	9.0
2	Estonia	1	9.29	9.40	9.3	9.8	9.5	10.0	8.5
3	Czech Republic	1	9.23	9.45	10.0	10.0	9.0	9.5	8.8
4	Hungary	1	9.16	9.40	10.0	10.0	9.0	9.5	8.5
5	Slovakia	1	9.06	9.20	10.0	10.0	9.0	9.5	7.5
6	Lithuania	1	9.02	9.25	10.0	10.0	9.3	9.5	7.5
7	Poland	1	8.90	9.20	9.80	9.8	9.3	9.5	7.8

Continuation of Annex III

Ref. No.	Country	Region	*S*	*SI*	*Q*1	*Q*2	*Q*3	*Q*4	*Q*5
8	Croatia	1	8.71	9.10	9.5	10.0	8.3	9.5	8.3
9	Latvia	1	8.20	8.30	8.8	9.5	8.5	8.5	6.3
10	Bulgaria	1	7.98	8.45	9.3	9.3	7.8	9.0	7.0
11	Romania	1	7.89	8.20	9.3	9.0	7.3	8.5	7.0
12	Macedonia	1	7.08	7.55	8.0	9.0	7.0	8.0	5.8
13	Ukraine	6	6.96	7.10	8.0	7.8	7.0	6.5	6.3
14	Serbia	1	6.95	7.40	8.8	8.5	6.8	7.0	6.0
15	Bosnia and Herzegovina	1	6.61	6.80	7.0	8.5	6.5	7.0	5.0
16	Albania	1	6.61	7.25	8.0	8.0	5.5	7.5	7.3
17	Mongolia	6	6.29	7.05	8.5	6.8	6.3	7.5	6.3
18	Armenia	6	6.26	6.10	8.8	6.0	4.3	6.0	5.5
19	Russia	6	6.14	5.70	7.5	6.0	4.8	5.5	4.8
20	Georgia	6	5.73	6.10	5.3	7.5	6.5	7.0	4.3
21	Kazakhstan	6	5.48	4.18	8.5	2.8	4.0	2.0	3.7
22	Moldova	6	5.06	5.40	6.5	6.8	4.8	4.5	4.5
23	Kyrgyzstan	6	4.76	4.08	7.3	3.8	3.8	2.0	3.7
24	Azerbaijan	6	4.51	3.80	6.8	3.0	4.3	2.0	3.0
25	Belarus	6	4.47	3.97	8.3	3.0	3.3	2.0	3.3
26	Tajikistan	6	3.50	3.60	5.8	2.8	3.5	3.0	3.0
27	Uzbekistan	6	3.46	3.13	6.8	1.8	2.5	2.0	2.7
28	Turkmenistan	6	3.20	2.58	7.3	1.0	2.0	1.0	1.7

Note: Region 1 — East-Central and Southeast Europe
Region 6 — Commonwealth of Independent States and Mongolia
S — status index
SI — democratic development status
*Q*1 — statehood
*Q*2 — political participation
*Q*3 — rule of law
*Q*4 — stability of democratic institutions
*Q*5 — political and social integration

Continuation of Annex III

№ з/п	Country	*S*II	*Q*6	*Q*7	*Q*8	*Q*9	*Q*10	*Q*11	*Q*12
1	Slovenia	9.36	10.0	9.0	10.0	9.5	9.5	8.0	9.5
2	Estonia	9.18	8.0	9.8	10.0	10.0	8.5	9.0	9.0
3	Czech Republic	9.00	9.0	10.0	9.5	9.5	9.0	8.0	8.0
4	Hungary	8.93	9.0	10.0	8.5	10.0	8.5	8.0	8.5
5	Slovakia	8.93	9.0	9.0	9.5	10.0	8.0	9.0	8.0
6	Lithuania	8.79	8.0	9.5	10.0	10.0	7.5	9.0	7.5
7	Poland	8.61	8.0	9.8	9.5	9.0	8.0	8.0	8.0
8	Croatia	8.32	8.0	8.8	9.5	8.5	8.0	8.0	7.5
9	Latvia	8.11	7.0	9.3	9.0	9.5	7.5	8.0	6.5
10	Bulgaria	7.50	6.0	8.5	9.0	8.5	7.5	7.0	6.0
11	Romania	7.57	6.0	8.0	9.0	8.5	7.5	8.0	6.0
12	Macedonia	6.61	6.0	6.8	9.0	7.0	6.5	6.0	5.0
13	Ukraine	6.82	6.0	6.8	8.5	6.5	6.5	8.0	5.5
14	Serbia	6.50	6.0	6.0	8.5	6.0	7.0	7.0	5.0
15	Bosnia and Herzegovina	6.43	6.0	7.0	8.5	6.0	5.5	7.0	5.0
16	Albania	5.96	5.0	6.3	8.0	6.0	5.5	7.0	4.0
17	Mongolia	5.54	3.0	6.3	8.5	6.5	4.5	6.0	4.0
18	Armenia	6.43	4.0	6.5	9.0	7.0	5.5	8.0	5.0
19	Russia	6.57	6.0	6.0	9.5	5.5	5.5	9.0	4.5
20	Georgia	5.36	4.0	4.5	9.0	5.0	4.0	6.0	5.0
21	Kazakhstan	6.79	6.0	6.5	9.0	7.0	5.0	9.0	5.0
22	Moldova	4.71	3.0	5.0	6.5	5.5	4.0	5.0	4.0
23	Kyrgyzstan	5.43	4.0	5.0	8.5	6.5	5.0	5.0	4.0
24	Azerbaijan	5.21	5.0	5.0	7.0	5.0	4.5	6.0	4.0
25	Belarus	4.96	7.0	4.8	3.5	2.5	7.0	5.0	5.0
26	Tajikistan	3.39	2.0	3.8	5.0	3.5	3.0	4.0	2.5
27	Uzbekistan	3.79	4.0	3.0	4.5	3.0	4.0	5.0	3.0
28	Turkmenistan	3.82	4.0	1.8	3.5	2.5	4.0	8.0	3.0

Note: *S*II — market economic development status
*Q*6 — level of socioeconomic development
*Q*7 — organization of the market
*Q*8 — currency and price stability
*Q*9 — private property
*Q*10 — welfare regime
*Q*11 — economic performance
*Q*12 — sustainability

Final part of Annex III

Ref No.	Country	Management Index *M*	
		Value	Ranking
1	Slovenia	7.41	1
2	Estonia	7.29	3
3	Czech Republic	6.95	5
4	Hungary	6.81	7
5	Slovakia	7.32	2
6	Lithuania	7.00	4
7	Poland	6.36	10
8	Croatia	6.88	6
9	Latvia	6.78	8
10	Bulgaria	6.51	9
11	Romania	6.33	11
12	Macedonia	5.54	14
13	Ukraine	4.69	19
14	Serbia	5.31	16
15	Bosnia and Herzegovina	4.69	18
16	Albania	5.32	15
17	Mongolia	6.31	12
18	Armenia	5.08	17
19	Russia	3.84	23
20	Georgia	5.91	13
21	Kazakhstan	4.13	22
22	Moldova	3.50	24
23	Kyrgyzstan	4.17	21
24	Azerbaijan	3.50	25
25	Belarus	2.74	26
26	Tajikistan	4.48	20
27	Uzbekistan	2.17	27
28	Turkmenistan	1.83	28

Source: Bertelsmann Stiftung, 2005.

4.2. The Strategic Partnership and Bi-Lateral Economic Relations of Ukraine and Poland

4.2.1. Introduction

The dynamic processes of intensifying globalisation and internalization of the economic life objectively actualise issues related to the development of a scientifically justified foreign economic strategy and policy of Ukraine, as well as an effective mechanism for the gradual and well-balanced inclusion of the national economy into the global economic system. The system of measures, aimed at achieving this strategic goal, includes both domestic market transformations intended for Ukraine to master the scientific-technological model of economic development and to enforce high social standards and to realise the potential of foreign economic ties by enhancing and diversifying cooperation with regional unions and countries — strategic partners in the West and East. Poland, cooperation with which serves as a catalyst for Ukraine's implantation into the European economic area, is special among these states.

4.2.2. The Asymmetry of Trade Cooperation and Tools for its Elimination

The current level and, even more so, potential possibilities for economic cooperation between Ukraine and Poland are sufficiently large-scale and multi-faceted, enabling the pursuit of national economic interests of both states in the international arena.

It is a well-known fact that the position of any country in the system of international and regional labor division, to a great extent is conditional upon the scope and pattern of its foreign trade exchange, since foreign trade specifically mediates practically all types of international labor division and enhances interaction between entities of the global economy. Furthermore, foreign trade becomes even more important to Ukraine, since its lop-sided, narrow-field, raw material export specialisation, causing the dependence of foreign trade upon the effect of external factors (primarily price fluctuations in the global markets), renders any normal process of the reproduction of social product in the country impossible. Furthermore, the prevalence of energy- and material-intensive products in exports not only enhances the dependence of Ukrainian export production on the supply of imported energy carriers (primarily from the Russian Federation), but also

considerably reduces the significance of exports as a source of currency proceedings due to the flow of currency beyond state borders through external debt service channels. Finally, conditional upon the creation of a powerful export potential, foreign trade is a significant lever for the restoration of Ukraine's national economy and a key source of currency proceedings for the purchase of critical import goods.

The destructive consequences of Ukraine's primarily unilateral dependence upon foreign trade constitute a significant argument in favor of geography and commodity diversification of export-import transactions, as well as the intensification of its regional trade. Among neighbouring countries, a special place belongs to Poland, which has been an important trading partner of Ukraine among the new member-states of the EU. Inquiring into the role of Ukrainian-Polish trade relations in the geography of Ukraine's export-import transactions, we can arrive at a conclusion about the traditional orientation of Ukraine's foreign trade and the legacy of being part of the USSR's national economy. As the data in Table 4.6 illustrates, unbalanced foreign trade is typical of Ukraine. For instance, even though the share of the CIS states in foreign trade turnover, exports and imports in 1996—2010 had a tendency to decline from 59.0 %, 56.8 % and 61.3 % to 40.2 %, 38.6 % and 41.8 % respectively, it still remains unjustifiably large and demonstrates a considerable asymmetry of the geographical pattern of Ukraine's trade relations, with the explicit predominance of Russia, which in 2010 accounted for over 32 % of Ukraine's foreign trade turnover, 29.4 % of exports and 34.7 % of imports (the State Statistics Committee of Ukraine). Also, there remains a chronic deficit in Ukraine's foreign trade with CIS states: in 1996—2010, the negative balance «increased» from USD 638.8 million to USD 3.287 b. At the same time, the weakness of Ukraine's positions on CIS markets is partially offset by its positive balance in the trade with the countries of Asia and Africa, which in 2010 amounted to USD 3.5413 b and USD 2.2523 b respectively.

With regard to Ukraine's foreign trade with EU states, the trade is characterised by a consistent tendency to grow: from 21.4 % to nearly 30 % in Ukraine's foreign trade turnover for the period of 1996—2010 (the State Statistics Committee of Ukraine). One should emphasise that Ukraine prioritizes cooperation with the European Union and its individual member-states considering that this integrated block will be determining the key vectors of economic, technological and innovative progress, as well as political stability in the European region for the long-term. Under this scenario, the development of cooperation between Ukraine and Poland may become a catalyst for the process associated with the European integration of Ukraine.

Table 4.6

BALANCE OF UKRAINE'S FOREIGN TRADE IN GOODS AND SERVICES IN 1996—2010

Foreign trade indices	CIS States	European countries	European Union	Poland	Asia	Africa	America	Total
Foreign trade turnover, USD millions / % of total								
1996	22,402.6 / 59.0	9,040.8 / 23.8	8,131.9 / 21.4	873.5 / 2.3	3,710.9 / 9.8	387.7 / 1.0	1,939.0 / 5.1	37,955.3 / 100
1998	14,817.2 / 45.5	10,313.0 / 31.7	9,303.0 / 28.6	796.1 / 2.4	7,228.9 / 22.2	735.2 / 2.3	2,159.0 / 6.6	32,563.7 / 100
2000	14,894.3 / 44.9	10,170.8 / 30.7	9,036.3 / 27.2	730.4 / 2.2	4,598.1 / 13.9	902.4 / 2.7	2,275.8 / 6.9	33,166.2 / 100
2002	16,071.3 / 40.5	13,665.9 / 34.5	12,500.1 / 31.5	1,105.0 /2.8	6,561.8 / 16.6	1,276.8 /3.2	2,252.2 / 5.7	39,646.8 / 100
2004	26,687.7 / 38.7	24,183.0 / 35.0	21,561.3 / 31.2	2,055.8 /3.0	11,236.0 / 16.3	2,109.7 /3.1	4,203.0 / 6.1	69,029.4 / 100
2006	37,004.0 / 39.1	33,494.4 / 35.4	30,569.3 / 32.3	3,631.4 /3.8	15,858.9/ 16.7	2,931.7 / 3.1	4,987.1 / 5.3	94,720.1 / 100
2009	37,780.3 / 37.8	32,079.7 / 32.1	30,954.5 / 31.0	3,588.2 / 3.6	20,871.6/ 20.9	3,453.8 / 3.5	4,890.3 / 4.9	99,907.8 / 100
2010	51,987.4 / 40.2	39,553.5 / 30.6	38,365.3 / 29.7	4,810.1 / 3.7	26,033.9/ 20.1	4,091.9 / 3.2	6,686.1 / 5.2	129,354.5 / 100
Export, USD millions / % of total								
1996	10,881.9 / 56.8	4,117.5 / 21.5	3,601.4 / 18.8	362.8 / 1.9	2,951.7 / 15.4	238.8 / 1.2	729.3 / 3.8	19,147.4 / 100
1998	6,554.0 / 39.8	4,849.3 / 29.5	4,255.8 / 25.9	317.9 / 1.9	3,283.4 / 19.9	610.1 / 0.4	1,081.9 / 0.7	16,457.2 / 100
2000	6,638.9 / 36.8	5,458.4 / 30.2	4,740.3 / 26.2	417.9 / 2.3	3,700.3 / 20.5	759.9 / 4.2	1,403.8 / 7.8	18,059.3 / 100
2002	6,807.5 / 30.9	7,500.3 / 34.1	6,696.9 / 30.4	535.7 / 2.4	5,327.9 / 24.2	1,091.4 /4.9	1,152.2 / 5.2	22,012.4 / 100
2004	10,872.5 / 28.6	13,418.1 / 35.3	11,301.6 / 29.8	1,021.8 /2.7	8,436.8 / 22.2	1,809.4 /4.8	2,953.5 / 7.8	37,974.0 / 100
2006	16,116.8 / 35.1	14,986.3 / 32.7	13,088.1 / 28.5	1,425.3 /3.1	9,180.4 / 20.0	2,468.0 / 5.4	3,125.7 / 6.8	45,873.2 / 100
2009	17,300.5 / 35.1	13,205.7 / 26.8	12,519.8 / 25.4	1,291.5 / 2.6	13,294.2/ 27.0	2,793.0 / 5.7	2,241.9 / 4.5	49,301.2 / 100
2010	24,350.2 / 38.6	17,128.1 / 27.1	16,240.6 / 25.7	1,880.1 /3.0	14,787.6/ 23.4	3,171.7 / 5.0	3,235.7 / 5.1	63,164.6 / 100

Final part of Table 4.6

Import, USD millions / % of total								
Foreign trade indices	CIS States	European countries	European Union	Poland	Asia	Africa	America	Total
1996	11,520.7 / 61.3	4,923.3 / 26.2	4,530.5 / 24.1	510.7 / 2.7	759.2 / 4.0	148.9 / 0.8	1,209.7 / 6.4	18,807.9 / 100
1998	8,263.2 / 51.3	5,463.7 / 33.9	5,047.2 / 31.3	478.2 / 2.9	945.5 / 5.9	125.1 / 0.8	1,077.1 / 6.7	16,106.5 / 100
2000	8,255.4 / 54.6	4,712.4 / 31.2	4,296.0 / 28.4	312.5 / 2.1	897.8 / 5.9	142.5 / 0.9	872.0 / 5.8	15,106.9 / 100
2002	9,263.8 / 52.5	6,165.6 / 34.9	5,803.2 / 32.9	569.3 / 3.2	1,233.9 / 6.9	185.4 / 1.1	1,100.0 / 6.2	17,634.4 / 100
2004	15,815.2 / 50.9	10,764.9 / 34.7	10,259.7 / 33.0	1,034.0 /3.3	2,799.2 / 9.0	300.3 / 0.9	1,249.5 / 4.0	31,055.4 / 100
2006	20,887.2 / 42.8	18,508.1 / 37.9	17,481.2 / 35.8	2,206.1 /4.5	6,678.5 / 13.7	463.7 / 0.9	1,861.4 / 3.8	48,846.9 / 100
2009	20,479.8 / 40.5	18,874.0 / 37.3	18,434.7 / 36.4	2,296.7 / 4.5	7,577.4 / 14.9	660.8 / 1.3	2,648.4 / 5.2	50,606.6 / 100
2010	27,637.2 / 41.8	22,425.4 / 33.9	22,124.7 / 33.4	2,930.0 / 4.4	11,246.3/ 17.0	919.4 / 1.4	3,450.4 / 5.2	66,189.9 / 100
Balance of foreign trade, USD millions								
1996	—638.8	–805.8	–929.1	–147.9	2,192.5	89.9	– 480.4	339.5
1998	–1,709.2	–614.4	–791.4	–160.3	2,337.9	485.0	4.8	350.7
2000	–1,616.5	746.0	444.3	105.4	2,802.5	617.4	531.8	2,952.4
2002	–2,456.3	1,334.7	893.7	–33.6	4,094.0	906.0	52.2	4,378.0
2004	–4,942.7	2,653.2	1,041.9	–12.2	5,637.6	1,509.1	1,704.0	6,918.6
2006	–4,770.4	– 3,521.8	–4,393.1	–780.8	2,501.9	2,004.3	1,264.3	–2,973.6
2009	– 3,179.3	– 5,668.3	– 5,914.9	– 1,005.2	5,716.8	2,132.2	– 406.5	– 1,305.4
2010	– 3,287.0	– 5,297.3	– 5,884.1	– 1,049.9	3,541.3	2,252.3	– 214.7	– 3,025.3

Source: Calculated by the authors on the basis of the data of the State Statistics Committee of Ukraine // www.ukrstat.gov.ua

The objective necessity to enhance the role of Poland as Ukraine's foreign trading partner may be attributed to the following factors:

- First, an urgent need for Ukraine to diversify the geographical pattern of its export-import transactions for the purpose of reducing its dependence upon the markets of CIS counties;
- Second, prospects to develop an ample domestic market in Ukraine and Poland in view of the geographical proximity of foreign trading partners of the two states, which would significantly enhance the potential for regional trade, to the extent that the mechanism of inter-state foreign trade exchange is improved;
- Third, opportunities for Ukraine to significantly expand the segment of domestic products on the markets of Western Europe states via Poland, as well as to seek support of the neighbouring state in the pursuance of its Euro-Atlantic aspirations.

Poland, on the other hand, is also interested in intensifying trading cooperation with Ukraine. Even though Poland prioritizes economic ties with the countries of the European Union in terms of trade relations, the provision of technological assistance, financial resources of the EU foundations and the utilisation of foreign managerial experience, the promotion of Poland's national economic interests is essentially conditional upon the effectiveness of developing stable, reciprocal and long-term economic relations with East-European countries. Ukraine is special among the latter; a number of factors contribute to such interest in Ukraine. First, Polish trade is characterised by an extremely high and constantly growing share of EU countries, which presently account for about 80 % of Poland's exports and 70 % of imports (the Central Statistical Office of Poland). On one hand, the current geographical pattern of Poland's foreign trade is entirely natural, since regional integration in the European Union is characterized not only by the elimination of internal barriers to the development of foreign economic relations between its member-states and coordination of various lines of economic policy, but also by the coordinated development of the principal spheres of interstate cooperation. On the other hand, Poland did not demonstrate such mono-dependence upon one regional block even in the times of the Council for Mutual Economic Assistance. Therefore, presently, Poland's economy has the exigent task of diversifying the country's foreign trade turnover to the benefit of the states which are not member-states of the European Union.

Furthermore, the virtual destruction of high-technology production facilities in Poland during the transformation period essentially restricts Poland's opportunities to compete in the global markets. Under such conditions, the great capacity of the Ukrainian market, along with its potentially high solvency, and good awareness of Polish manufacturers

about the needs of Ukrainian consumers create attractive prospects for an increase in the volume of Polish products on the Ukrainian market.

Unfortunately, Ukraine's current role in Poland's foreign trade and the realization of Poland's export potential is quite modest. This is demonstrated by the extremely small share of Ukraine in Poland's total foreign trade turnover, which in 1992 - 2010 did not exceed 2 %, including 3.5 % in Poland's exports and 1.5 % in Poland's imports (the Central Statistical Office of Poland). Studying the dynamics and pattern of the export-import transactions between Ukraine and Poland permits one to arrive at a number of generalising conclusions.

First, there are considerable discrepancies in the statistical data related to the foreign trade dynamics between the two states and provided by the State Statistics Committee of Ukraine and the Central Statistical Office of Poland (Table 4.7). This may be attributed to both different methodological approaches to the calculation of the volumes of export-import transactions between Poland and Ukraine and the partial presentation of the volumes of cross-border trade or «suitcase-trade» exchange in the Polish statistics, while relevant data remains practically uncovered by the Ukrainian statistics. Furthermore, one should not neglect the considerable abuse of power by employees of the Ukrainian customs office, who fail to register the large-scale volumes of illegal and sometimes contraband trans-border movement of consumer goods and industrial commodities in violation of customs rules and regulations.

Second, in 1992 — 2010, the trade between Ukraine and Poland developed unevenly. While in 1992 — 1997, the volumes of inter-state trade gradually increased from USD 285.4 million to USD 1.6223 billion respectively, or 5.7 times, in 1998 — 1999 the dynamic growth of the trade turnover of the two countries was interrupted due to the financial crisis of 1998 in Russia. Consequently, the volumes of Ukrainian-Polish trade during the period dropped from USD 1.6223 billion in 1997 to USD 1.0406 billion (or by 36 %) in 1999, including the volumes of Ukrainian exports and Polish imports which shrank from USD 415.5 million to USD 338.4 million (or by 19 %) and from USD 1.206.8 billion to USD 702.2 million (or by 42 %) respectively. An impetuous, as compared to that of the exports, reduction of imports from Poland to the Ukrainian market led to a reduction of the negative balance in the trade of goods between Poland and Ukraine, which in 1998 amounted to USD 709.2 million and in 1999 and 2000 to USD 363.8 million and USD 328.8 million respectively. It was only in 2000 that the trade between Poland and Ukraine stabilised and began to gradually increase volumes: during 2000—2010 the volume of export-import deliveries grew over 6.5 times from USD 730.4 million to USD 4.8101 billion respectively.

Table 4.7

INDICATOR DYNAMICS FOR FOREIGN TRADE IN GOODS BETWEEN UKRAINE AND POLAND IN 1992-2010 (USD MILLIONS)

Year	Turnover of foreign trade		Exports from Ukraine		Imports to Ukraine		Foreign trade balance	
	Poland's statistics	Ukraine's statistics	Poland's statistics	Ukraine's statistics	Poland's statistics	Ukraine's statistics	Poland's statistics	Ukraine's statistics
1992	285.4	...	123.8	…	161.6	...	–37.8	...
1993	388.6	199.3	201.1	122.5	187.5	76.8	13.6	45.7
1994	485.3	386.7	204.9	197.6	280.4	189.1	–75.5	8.5
1995	1,033.4	714.6	290.8	256.8	742.6	457.8	–451.8	–201.0
1996	1,396.3	873.5	418.5	362.8	977.8	510.7	–559.3	–147.9
1997	1,622.3	930.2	415.5	380.3	1,206.8	549.9	–791.3	–169.6
1998	1,463.6	796.1	377.2	317.9	1,086.4	478.2	-709.2	–160.3
1999	1,040.6	559.9	338.4	301.4	702.2	258.5	-363.8	42.9
2000	1,282.2	730.4	476.7	417.9	805.5	312.5	–328.8	105.4
2001	1,354.1	936.2	503.4	489.2	850.7	447.0	–347.3	42.0
2002	1,672.1	1,043.1	491.6	505.9	1,180.5	537.2	–688.9	–31.3
2003	2,305.8	1,565.4	744.6	763.0	1,561.2	802.4	–816.6	–39.4
2004	3,063.3	1,948.6	1,039.7	979.9	2,023.6	968.7	–983.9	11.2
2005	3,609.2	2,417.6	1,021.0	1,010.9	2,588.2	1,406.7	–1,562.2	–395.8
2006	5,299.0	3,453.6	1,371.1	1,344.5	3,927.9	2,109.1	–2,556.8	–764.6
2007	7,132.8	4,557.4	1,619.5	1,636.9	5,513.3	2,920.5	–3,893.8	–1,283.6
2008	8,709.2	6,618.6	2,266.8	2,338.3	6,442.4	4,280.3	–4,175.6	–1,942.0
2009	4,641.1	3,378.3	1,166.3	1,208.0	3,474.8	2,170.3	–2,308.5	–962.3
2010	…	4,576.0	…	1,787.2	…	2,788.8	…	–1,001.6

Source: Calculated and drawn up on the basis of the data of the State Statistics Committee of Ukraine and the Central Statistical Office of Poland.

Third, throughout the period of Ukraine's independence, the balance of trade between Poland and Ukraine has been developing to the advantage of Poland. This is demonstrated, in particular, by the fact that the volumes of total turnover of goods between the two countries increased primarily owing to the positive dynamics of Poland's exports to Ukraine. For instance, as per Ukraine's statistics, while in 1993—2010

the exports of Ukrainian goods to Poland increased 14.6 times, Poland's imports to Ukraine increased over 36 times. This became an agent for a non-parity inter-state exchange of goods and caused a chronic trade deficit between Poland and Ukraine, which in 2010 was equal to USD 1.0016 billion.

The effectiveness of the foreign trade relations of any country and the level of their impact on economic development, to a great extent, depend on the commodity pattern of exports and imports. Trade between Poland and Ukraine is characterised by an extremely narrow assortment of goods. For instance, in the past ten years the following prevailed in the total volumes of Ukraine's exports to Poland: mineral commodities (on average 49 % of the annual export volumes); ferrous and non-ferrous industry products (22 % respectively); chemical products (13.1 % respectively); agricultural and food-processing industry products (6 % respectively); as well as timber and timber products (4.2 % respectively). In the aggregate, the above mentioned groups, representing low-technological industrial sectors of Ukraine with a low level of value added production, account for nearly 90 % of the total volume of Ukraine's exports to Poland. At the same time, the share of high-technological goods and services in Ukraine's exports to Poland is quite humble; in particular, the total share of products of the machine-building industry in 1999—2010 amounted to only 2.9—3.3 % of Ukraine's exports to the neighbouring state. The available advantages in the development of high-technological competitiveness were extremely underutilised by Ukraine's economy, since its international competitiveness in foreign trade relations with Poland is primarily based on the comparative advantages of the export of cheap labour and natural resources. Under such conditions, Ukraine's domestic exporters actively utilize price competition in the sphere of semi-finished goods, low-value-added and low-technological products.

With regard to the commodity pattern of Poland's imports to Ukraine, its active diversification in the past decades has shaped a number of lines with the prevalence of such groups as the products of the chemical industry and related industries, including polymeric materials and pure rubber (on average, 20.3 % of the annual volumes of Poland's imports in 1999—2010); agricultural and food-processing industry products (13.3 % respectively); consumer goods industry (11.2 % respectively); furniture and lighting equipment (6.8 % respectively). Products of the machine-building industry, as well as their spare parts and accessories, hold the strongest positions in Poland's imports to Ukraine: in the above mentioned period the share of such goods grew from 12.1 % to 26.3 % of the total imports of commodities from Poland to Ukraine.

This status quo, first, fundamentally impedes the inclusion of Ukraine into the European Economic Area; second, does not correspond to the consumer demand for imports both in Poland and in Ukraine; and, finally, solidifies the asymmetry of the structural development of Ukraine's economy, hinders the development of high-technology industries and the intellectualization process of national production as the basis of Ukraine's export potential.

At the same time, the non-proportionally large share of raw materials and energy-intensive and material-intensive products in Ukraine's exports to Poland amid Ukraine's dependence upon the import of energy carriers and fickle price competition in the relevant market segments does not permit Ukraine to enhance its trading potential without fundamentally re-structuring its export strategy.

The factors that have recently been adversely affecting the development of bilateral trading and economic cooperation between Ukraine and Poland may be split into three groups. The first group incorporates endogenous (internal) factors, which should include a reduction in the production of key export commodities in Ukraine due to high tax and bank loan rates; difficulties associated with value added tax (VAT) refund to commodity exporters; weak mechanisms of the government support of export; low competitiveness of domestic products; imperfection of credit facilities and financial support schemes for foreign trade transactions of Ukrainian business entities; instability of Ukraine's legislative framework; constant changes to tax rates and tariff rates; imperfection of the practice of copyright protection; an organisational and structural weakness of Ukrainian manufacturers of export-oriented products; low marketing activity of Ukrainian enterprises (participation in fairs and trade shows); an extremely low level of representation of Ukrainian companies in Poland, etc.

The second group encompasses exogenous (external) factors, which include the non-harmonization of European and Ukrainian standards, existing tariff and non-tariff barriers to trade with EU member-states, etc.

Since from the perspective of its trading relations with third countries, Poland's accession into the European Union implies the transfer of competences pertaining to its trade and customs policy to the commonwealth level, one should not neglect the fact that the problem of the harmonization of Ukraine's certification standards and procedures with those of the EU remains unresolved. This factor may be the major obstacle to the establishment of effective cooperation between the industrial enterprises of Ukraine and European states, particularly Poland, and thus, to a breakthrough in the status quo of the trading relations between the two states.

Furthermore, the problem associated with the application of quotas on the import of ferrous industry products from Ukraine to the new member-states of the EU remains unregulated, which may become a factor, contributing to the loss of an essential segment of the European rolled steel market by Ukraine, with annual losses for the Ukrainian economy reaching USD 50 million.

The utilization of Ukraine's foreign trade potential in its economic cooperation with Poland requires providing systematic support for the development of its national export potential, which would include a system of measures implemented by Ukraine to provide technical assistance to its exporters abroad in order to promote national economic interests on the Polish market. This requires the application of regulatory (normative-legal), financial and economic, as well as organisational tools.

With regard to the regulatory methods, improving normative-legal provisions on the support of commodities produced by Ukrainian manufactures and marketed in Poland is presently becoming particularly important. The ones that require immediate action include: inventorying Ukraine's and Poland's normative-legal framework with regard to the status quo in the implementation of bilateral agreements on trade and economic cooperation; harmonizing the legislation of Ukraine pertaining to tariff and non-tariff regulation with that of the EU, as well as certification and currency regulation systems; gradually harmonizing the state standards of Ukraine with international and European standards; and activating the process of entering into an agreement on the creation of a free trade area with the EU, etc.

The package of financial and economic measures intended to promote the interests of Ukrainian manufacturers on the Polish market includes the following most effective measures: the provision of financial assistance by the state to domestic exporters through export crediting facilities; the insurance of export crediting facilities against commercial and political risks; the provision of government guarantees to extend credit facilities to export-oriented production and to introduce an effective crediting system for their current assets; the provision of government support to the exporters of industrial commodities, first and foremost in the sectors with competitive advantages on the global market, etc.

With the further development of financial assistance, it seems reasonable for domestic exporters to enhance investment cooperation between Ukrainian and Polish business entities within the framework of specific projects designed to develop competitiveness in foreign markets of relevant commodities; to accumulate financial resources for both utilizing new technologies and implementing large-scale diversification

of the production of knowledge-intensive goods; and to apply tax, duty and tariff tools for the purpose of stimulating exporters.

Realising Ukraine's export potential on the Polish market also requires improving organisational support for foreign trade activities. Relevant top-priority tasks encompass the following: providing information and analytical support for foreign trade activities, which must include, in particular, developing effective information networks for foreign trade and diversifying the activities of information and consultation services of regional and foreign missions; monitoring Poland's goods markets and drafting recommendations for the enhancement of Ukraine's export of goods; organizing an effective system for the exchange of business information between Ukrainian and Polish economic entities; implementing advertising, image and promotion campaigns to gain publicity for the development of economic relations with Ukraine; developing an effective infrastructure for the sale of goods and services on the Polish market; facilitating the implementation of a prospective plan pertaining to the participation of Ukrainian business entities in trade shows and related events held in Poland, etc.

In view of the fact that presently the key channel for the promotion of Ukrainian goods in foreign markets goes through Ukraine's trade and economic missions, which have the capacity to collect and process huge bulks of initial data about demand and supply in individual segments of foreign markets, there is a possibility of Ukraine making a breakthrough in the Polish and European markets, provided that the presence of Ukrainian enterprises in such markets will be pivotally enhanced. This process includes the following critical measures: promoting the participation of Ukrainian enterprises and firms in trade shows and related events held in Poland; creating a ramified network of trade representative offices of Ukraine's large companies in Poland; improving the performance of Ukrainian trade and economic missions, etc.

Furthermore, there is a need to initiate an active publishing activity, to finance the publication of materials, catalogues, newsletter and factsheets for the creation and operation of a public information system, which would provide exigent, available, interactive information about the enterprises of Ukraine and their export capacities.

The above mentioned measures intended to promote the interests of Ukrainian manufacturers on the Polish market permit not only the enhancement of the effectiveness of trading cooperation between Ukraine and Poland, as a key component of bilateral economic interaction at the state level, but also to achieve a strategic goal — the integration of Ukraine into the European Economic Area.

4.2.3. Diversification of Investment and Production Cooperation

The cooperation in investment and production is a critical component of the strategic partnership between Ukraine and Poland in the economic sphere. It plays an important, pivotal role in the promotion of their national economic interests in the international arena by developing an optimal model for the interaction and complementarity of the national economic systems of the two countries and for the implantation of their reproductive systems in the international division of labor and the global economy, as well as by ensuring the effective utilization of international capital flow channels by the countries.

With regard to Ukrainian-Polish cooperation in investment, first, it may be viewed as a mechanism that, by embodying itself in specific forms of interstate industrial cooperation, enhances cooperation of Ukrainian and Polish enterprises in the production sphere and forms international reproduction relations pertaining to the production of a social product.

Second, with limited internal resources for economic development, the engagement of foreign investment plays a critical role in dealing with the investment slump and may be viewed as an instrument for bringing in advanced technologies and innovations, modern management, marketing and production organisation methods, thus it is a powerful tool for Ukrainian production and diversification of its exports pattern, which may bring Ukrainian-Polish economic relations to a new advanced level of strategic partnership.

Finally, taking into account Poland's inclusion into the reproductive process of the EU member-states, Ukrainian-Polish cooperation in investment and production facilitates the development of reproductive relations between the EU, Poland and Ukraine through participation of not only Ukrainian and Polish, but also European entrepreneurs in the production and technological cycle. The context opens wide prospects for Ukraine to become engaged in the reproductive process of European Union countries through the development of an effective model of cooperation in investment and production with Poland.

Furthermore, motivational advantages of effective cooperation in investment and production between Ukraine and Poland may also include prospects of expanding Ukraine's export of finished commodities not only to the Polish, but also to the West European markets (first and foremost machinery and equipment markets) by virtue of a comparatively insignificant growth of the purchase volumes of component parts,

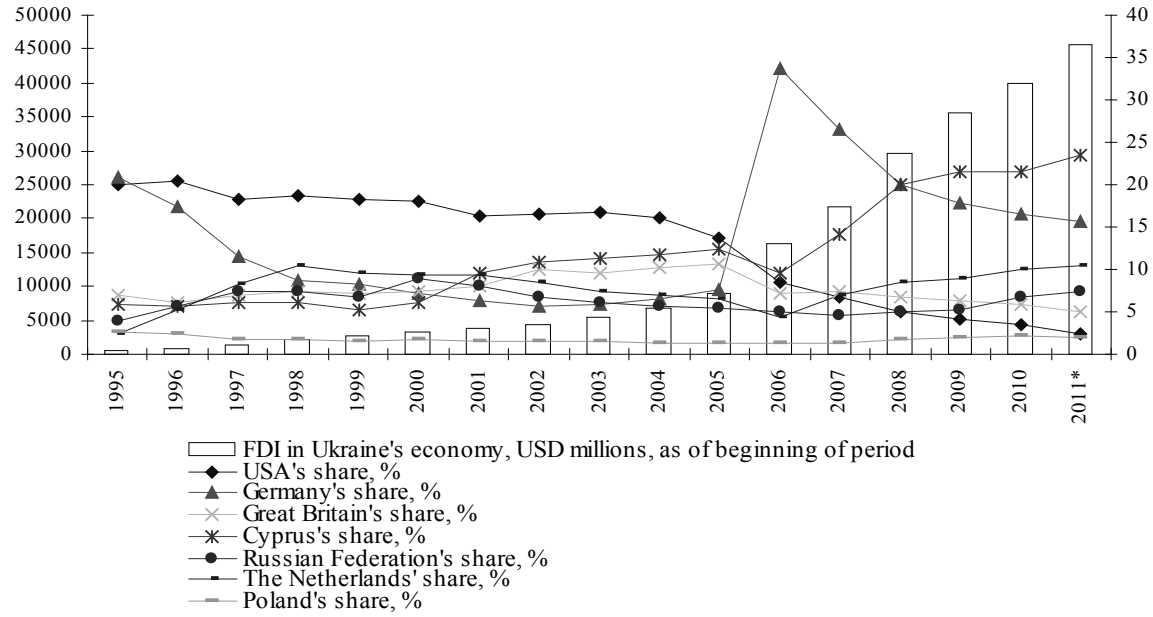
elements and units. Since strengthening its positions on the global markets through traditional trade channels is considerably complicated for Ukraine in this present context due to escalating competition and increasing protectionism, cooperation with Polish and Western companies through deliveries of primarily individual component parts and elements is more effective than the sale of finished commodities with the utilization of trade channels.

Research in the engagement of Polish investment capital into Ukraine permits us to conclude that the origin of the process virtually goes back to the collapse of the USSR. However, business entities of both states only became engaged in the Ukrainian-Polish investment cooperation in 1994. As the data in Figure 4.3 illustrates, the accumulative volumes of foreign direct investment (FDI) in Ukraine's economy kept constantly growing from the very beginning and on 1 April 2011 amounted to USD 45.6023 billion, thus surpassing the relevant indicator for 1995 nearly 95 times.

The largest inflow of FDI in Ukraine's economy was in 2005, when foreign investors invested nearly USD 8 billion, which ensured USD 350 of foreign investment per capita. The greatest growth was in the capital of non-residents from Germany —by nearly USD 5 billion (due to the purchase of *Kryvorizhstal* by *Mittal Steel Germany Gmbh* registered in Germany) and Austria — by USD 1.1 billion (due to the purchase of *Aval Bank* by *Raiffeisen International* from Austria in the amount of EUR 850 million) (Investment in the Economy …, 2006 : 23).

With regard to the geographical pattern of foreign capital investment in Ukraine's economy, a total of 113 countries invested in Ukraine and as of 1 April 2011 the greatest volumes of FDI came from non-residents from Cyprus (USD 10.665 billion or 23.4 %), Germany (USD 7.1534 billion or 15.7 %), Great Britain (USD 2.3189 billion or 5.1 %), the Netherlands (USD 4.7468 billion or 10.4 %), the United States (USD 1.1008 billion or 2.4 %) and Russia (USD 3.3833 billion or 7.4 %), while investments from Poland were relatively insignificant (USD 893.2 million or 2.0 %) (the State Statistics Committee of Ukraine).

The analysis of the dynamics of Poland's investments in Ukraine's economy (Figure 4.8) permits us to make a number of general conclusions. First, Poland's total investment in Ukraine's economy in 1995—2011 grew 70 times, which demonstrates that Poland's economy has enhanced its investment potential and that the neighbouring state is interested in enhancing investment cooperation with Ukraine.



*As of 1 April 2011

Figure 4.3. Dynamics of Foreign Direct Investment in Ukraine's Economy in 1995—2011

Based on the data of the State Statistics Committee of Ukraine // www.ukrstat.gov.ua.

Table 4.8

DYNAMICS OF UKRAINIAN-POLISH DIRECT INVESTMENT IN 1995—2011 (at the beginning of period)

Year	Foreign direct investment in Ukraine's economy, USD millions		Poland's share in foreign investment in Ukraine, %	Foreign direct investment of Ukraine, USD millions		Poland's share in Ukraine's foreign investment, %
	Total	From Poland		Total	To Poland	
1995	483.5	13.1	2.7	20.3	0.4	1.9
1996	896.9	20.5	2.3	84.1	0.3	0.4
1997	1,438.2	25.4	1.8	97.4	0.3	0.3
1998	2,063.6	37.1	1.8	127.5	0.3	0.2
1999	2,810.7	45.7	1.6	97.5	0.3	0.3
2000	3,281.8	54.5	1.7	98.5	0.3	0.3
2001	3,865.5	62.1	1.6	170.3	0.3	0.2
2002	4,555.3	69.3	1.6	155.7	0.4	0.3
2003	5,471.8	98.5	1.8	143.9	0.4	0.3
2004	6,794.4	156.3	2.3	163.5	0.4	0.2
2005	9,047.0	152.7	1.7	175.9	0.3	0.2
2006	16,375.2	225.0	1.4	218.2	20.3	9.3
2007	21,186.0	366.0	1.7	221.5	24.2	10.9
2008	29,489.4	702.6	2.1	6,196.1	30.1	0.5
2009	35,723.4	694.7	1.9	6,198.6	46.9	0.8
2010	40,026.8	864.9	2.2	6,223.3	49.4	0.8
2011*	45,602.3	893.2	2.0	6,920.6	50.7	0.7

* — as of 1 April 2011

Source: Calculated and drafted by the authors on the basis of the data of the State Statistics Committee of Ukraine // www.ukrstat.gov.ua

However, while there is an absolute increase in Poland's investment, the share of Poland as a donor of FDI in Ukraine is shrinking (from 2.7 % in 1995 to 2.0 % in 2011). In relation to the above-mentioned, Poland's investment in Ukraine did not considerably assist in dealing with the deficit of investment resources in the state or contribute to its innovative and technological development, did not trigger the creation of effective jobs or the elimination of regional disproportions of social and economic development, while in terms of significance for Ukraine's economy,

Poland's investment is essentially behind the capital investments of such states as Germany, the United States, Cyprus, the Netherlands, Great Britain or the Russian Federation.

Second, even though the absolute volumes of Ukraine's foreign investment in Poland are relatively insignificant, its dynamics is characterized by high indicators: in 1995 — 2011 absolute volumes grew from USD 0.4 million to USD 50.7 million or 127 times. At the same time, in 1995—2004 the dynamics of Ukraine's FDI in Poland were characterized by stagnation, as the share of Poland as a recipient of Ukraine's foreign investment shrank from 1.9 % to 0.2 %.

The year 2005 became a turning point for the cooperation in investment between Ukraine and Poland, as Ukrainian financial and industrial groups began investing in Poland. The activation of their relations was associated with the privatization of large industrial facilities in the neighbouring state. For instance, the largest Ukrainian investors in Poland's economy are presently *ISD Corporation* and the *UkrAVTO Corporation*. More specifically, *ISD Corporation* invested EUR 307 million in the metallurgical plant *Huta Częstochowa*, purchased 50% of the shares in a plant producing refractory materials, located in the city of Chrzanów from *Ropczyce S. A*., a Polish company, and signed an agreement with *Zlomrex S. A*. for the creation of the joint Ukrainian-Polish venture *Industrial Metallurgical Company*. In its turn, *UkrAVTO Corporation* became known on the Polish financial market for investing in *Fabryka Samochodów Osobowych* (literally, the Warsaw Automobile Plant).

With regard to the sector composition of Poland's investment in Ukraine's economy, the largest-scale investments of Poland are presently in the industrial sector — 55.9 %, particularly in the chemical industry (18.9 %) and woodworking industry (9.9 %). Polish investors were also significantly interested in the sectors of Ukraine's economy that guarantee fast circulation of capital, specifically domestic trade (11.2 %), as well as finances, insurance and crediting (27.4 %). For instance, presently, the opening of parent enterprises of Polish companies in Ukraine may be called the most successful projects implemented by Polish investors in Ukraine: a *TZMO S.A*. factory for bandaging materials in the town of Berezan located in the proximity to the town of Boryspil, *Inter Groclin* in Uzhhorod, *Can-Pack S.A*. opening a factory for beverage can production in Vyshhorod. Furthermore, three Polish furniture factories operate in the East of Ukraine: *Forte*, *Wiko* and *Nowy Styl*.

In the financial sphere, the *Polish Credit Bank* made the largest investments in Ukraine by establishing *Credit Bank Ukraine*, which is currently one of the largest banks in Ukraine, with a vast network of regional divisions. Furthermore, another bank with Polish capital operates

in Ukraine — *Pekao Ukraine*, which has two branches — one in Lutsk and one in Kyiv. The activities of the banks are aimed at simplifying the settlement of payments in Ukrainian-Polish trade.

At the same time, financial contributions in the machine building and metal-working manufacturing, food processing, consumer goods industry and pharmaceutical industry presently do not exceed 4.3 %, 3.7 %, 3.2 % and 2.1 % of the total Polish investment in Ukraine respectively. Thus, one may ascertain that Poland's investment in Ukraine has a limited impact on the economic development of the country. The investment's concentration in individual high-profit sectors guaranteeing quick returns, weak connection with infrastructure projects, and low regional diversification do not permit the full satisfaction of Ukraine's resources needs required for its accelerated development or to effectively utilise the available investment potential of the country.

The strategy of Polish investors for penetrating and consolidating domestic capital in Ukraine's economy gives significant consideration to the establishment of joint ventures with Ukrainian partners. According to statistics, joint Polish-Ukrainian ventures presently represent a prevailing form of Poland's direct investment in Ukraine.

With regard to the benefits and weaknesses of Ukrainian-Polish investment cooperation in the form of joint ventures for economic entities of Ukraine, the following should be included in the benefits: opportunities for raising material and financial resources which are part of the enterprise's fixes assets and do not require payment; consolidation of interests of the Ukrainian and Polish partners, which implies motivation/commitment to the improvement of production and market penetration; as well as opportunities for the free promotion of goods produced at such enterprises in third countries' markets (first and foremost, post-Soviet states and the European Union).

The intensification of inter-state investment cooperation between Ukraine and Poland is possible only through the transition of Ukrainian-Polish business entities from mere trade activities to investment and production activities. Such form of cooperation must include: enhancement of the manufacturing presence of Polish partners on the Ukrainian market; broader participation of Polish enterprises in privatization processes in Ukraine; Poland's investments in top-priority sectors of Ukraine's economy (the energy complex, coal-mining, chemical and oil-refining industries, and food processing).

A pragmatic approach to the strategy of Ukrainian-Polish economic cooperation permits the determination of priorities in co-production that involves Ukraine and Poland. For instance, inter-state cooperation in agriculture has broad prospects for development. Such cooperation could be

enhanced by the following: creating joint ventures for cultivating agricultural crops (sugar beets and sunflower) with the application of Polish technologies and Ukraine's supply of raw materials and subsequently entering third countries' markets; food processing; constructing storage facilities; arranging co-production of machinery and equipment in Ukraine for the mechanization of technological processes in vegetable farming, gardening and livestock farming; organizing the agricultural market; delivering low-capacity slaughterhouses, bakeries and grinding mills by Polish partners; staff training, creating and ensuring the operation of new organizations for the state regulation of the agrarian market, privatization of state agricultural enterprises, modernization and re-structuring of agriculture, etc.

At the same time, the development of Ukrainian-Polish cooperation in production in the pharmaceutical industry also offers prospects. For instance, investment may be used for the implementation of joint projects in the production of vitamins and multi-vitamins on the basis of concentrated juice, fruits and vegetables, microelements and sorbents; bacterial preparation and vaccines; cardio-vascular and anaesthetic agents; non-fusion solutions; and generic drugs.

The production and sale of construction materials is another sphere of investment and production cooperation between Ukrainian and Polish economic entities. The high prospects of such cooperation emerge from, on the one hand, the dynamic development of construction and home renovation in Ukraine and, on the other hand, a wide assortment, high quality and reasonable prices of construction materials produced in Poland (A. Skovronska-Luchynska, 2003 : 431).

In the context of the promotion of Ukraine's and Poland's national economic interests, enhancing cooperation and implementing investment projects in the energy sector becomes particularly relevant. Achieving this strategic objective is facilitated by a project associated with the development of the Euro-Asian Oil Transportation Corridor (EAOTC) (through the Odesa—Brody—Gdansk pipeline), which has created a clash of national economic interests of many actors on the European energy market, including the United States and the Russian Federation. With regard to Ukraine and Poland, their national economic interests pertaining to the Caspian Oil and the Gas Basin are a product of a number of significant factors, including the following key ones.

First, this creates opportunities for both countries to assume key positions in the sphere of hydrocarbon transit and to diversify the channels of hydrocarbon supply to Europe. Second, Ukraine and Poland are critically dependent on the import of energy carriers. For instance, annual consumption of oil and natural gas by Ukraine's economy recently amounted to about 1 million tons and 80—85 billion cubic meters.

Second, there is a similar picture in Poland, which has strong energy dependence on the Russian Federation. This is, specifically, illustrated by the share of imported natural gas in total gas consumption, which amounts to about 70 % (with annual natural gas consumption by Poland's economy being at a level of 12 billion cubic meters, only 4 billion cubic meters are produced domestically, 1 billion cubic meters is imported from Western Europe and 7 billion cubic meters are imported from Russia).

Third, the participation of Ukraine and Poland in Caspian oil transportation creates additional opportunities for the development of the reciprocal cooperation of the two states with Asian countries producing and transiting oil to their territory, which will facilitate the enhanced cooperation of the countries with leading global companies dealing with the extraction and transportation of energy resources. On this basis, the EAOTC Project may become an additional stimulus for Ukraine and Poland to establish special relations and strategic partnership.

The following key lines of Ukrainian-Polish cooperation in the energy sphere should be noted:

- Reconstruction of the Komarno Compressor Plant - Drozdovychi by the Ukrainian party to increase flow capacity of the gas pipeline in the section delivering gas to Poland for the purpose of counter-balancing the peak load of Poland's gas transportation system during the winter season;
- Activation of the use of Ukrainian underground gas storage facilities and the construction of the Ustyluh— Hrubieszów gas pipeline with an annual capacity of about 10—20 million cubic meters by the Polish party for the development of a gas supply network in the Eastern regions of Poland;
- Joint construction (in the long term) of a new gas pipeline in Poland from the Ukrainian-Polish border to the Ukrainian-Czech border to improve the supply of gas to the Northern regions;
- The participation of *National Joint-Stock Company Naftogaz of Ukraine* in Polish gas distribution enterprises;
- Co-participation of Ukrainian and Polish companies in the privatization processes in the national fuel and energy sector. Specifically, the participation of *National Joint-Stock Company Naftogaz of Ukraine* in the bidding proceedings for the sale of 30—35 % of shares of *PGNiG*, a Polish concern and a monopolist in the production and sale of oil (460—470 thousand tons annually) and gas (about 4 billion cubic meters annually) in Poland, speaks about the high prospects of relevant cooperation;
- Co-development and co-utilization of the gas and oil fields of Ukraine, Poland and third countries, as well as the enhancement of the flow capacity of the Polish gas transportation system, etc.

In view of the limited financial resources required for the implementation of the above mentioned projects, it seems reasonable to raise funds from foreign investors interested in the operation of the facilities, for instance, oil refineries located in Central and Eastern Europe. Poland will benefit from the transit of energy carriers through the territory of Ukraine, while Ukraine will enhance its potential for the provision of services associated with the transit of energy carriers.

The implementation of investment projects associated with co-construction and the modernization of the transportation corridors of the two countries also corresponds to the gradual development of Ukrainian-Polish investment and production cooperation, particularly in the context of preparation for Euro-2012, which would permit not only the expansion of the exchange of goods with the countries of Western, Central and Eastern Europe, to improve the quality and to optimize transportation routes, but also to resolve a number of regional problems of Ukraine's and Poland's border territories, specifically to reduce social tension through the creation of a network of consumer services and maintenance for road users.

The considerable length of the Ukrainian-Polish border and non-conformance of its infrastructure to modern demands (small number of border checkpoints, obsolete equipment, etc.) require putting in more effort to improve its technical infrastructure and creating new checkpoints. For instance, there are short-term plans to reconstruct the Yahodyn—Dorohusk checkpoint and to construct a bypass highway in the area of the Ustyluh—Zosin checkpoint. Ukraine has also initiated negotiations with Poland about the creation of the Adamchuky — Zbereze border checkpoint on the territory of the Volyn Oblast.

The enhancement of international labor division in research and in the industrial utilization of research results, contributes to an objective increasing need for the cooperation of Ukraine's and Poland's capitals and the further international exchange of research and development findings. Since the participation of the two countries in the international exchange of technologies is characterised by rather limited opportunities, the following may become an effective form of bilateral cooperation in investment and production: connecting our enterprises to the technological network operating within the framework of West-European transnational corporations; opening their branches and subsidiaries on the territory of Ukraine and Poland, which, according to the corporations' innovation strategy, latest technologies will be passed on to said entities; and gaining the membership in international production and research associations (including, those involving representatives of the European Union). In the future, similar production and research associations could be united in technoparks, which would form an institutional and

organizational environment and would facilitate the intensification and enhancement of the bilateral cooperation in investment and production between Ukraine and Poland.

Furthermore, for the purpose of raising additional financial resources for research and development, one needs to establish a special foundation for the support of science and technology and to seek share contributions from Polish and Ukrainian partners and financial funds from Western investors and representatives of domestic business and financial communities.

The activities of industrial and financial groups will contribute to the implementation of the Ukrainian-Polish model of investment and production cooperation. Within its framework, by consolidating Ukrainian and Polish capitals, management experience, research and technology developments, it will be possible to achieve considerably better results from the implementation of investment co-projects, which will significantly improve the positions of Ukrainian and Polish business entities that have consolidated their capital in the domestic and international markets. Industrial and financial groups (IFGs) are characterized by various forms of origin and existence and differ in their formation centres. IFGs may be established around a powerful industrial enterprise or a group of enterprises; banking IFGs are established around potent banks; furthermore, there also exist research IFGs and trade IFGs (involving a trade company and a bank or another financial institution), which permits IFGs to utilize government support (state guarantees for raising investments, easing of reserve requirements for banks — IFG members, financial government support of IFGs are involved in national or international projects, exemption from customs duties and taxes, etc.).

The introduction of an effective syndicated lending mechanism through the association of Ukrainian and Polish financial institutions (primarily banks) into syndicates will also facilitate progressive development of the Ukrainian-Polish cooperation in investment and production through the implementation of large-scale projects. With the introduction of the legislative regulation of Polish and Ukrainian banks' participation in the capital, unlike ordinary interbank cooperation, such cooperation through association in syndicates, will be based on the mutual agreement of the participants, may have various terms, will involve less risk and permit a considerable expansion in the scale of crediting. Even though presently syndicated lending has become significantly less popular in developed countries due to the spread of the securitization practice, for Ukrainian and Polish banks, in view of limited access to the global capital market, the formation of bank capital may contribute to the implementation of large-scale projects based on the investment and production cooperation of the business entities of the two countries.

4.3. Sector-Specific Priorities of Social and Economic Convergence

4.3.1. Introduction

Real needs and the specific features of the social and economic development of the modern global economy comprise an objective foundation for the convergence of Ukraine's and Poland's national economies. In this context, if the economic interests of relevant partners are similar or identical, the consolidation of efforts of governments, regions, individual companies, sectors, and industries can secure a powerful synergy effect for each participating state separately and for both, if all components of such effects are taken into consideration.

Nonetheless, real sector-based convergence of national economies or, even more so, a lasting synergy effect of such convergence may only be possible on condition of the following: similarity of the strategic goals of social and economic development; a developed institutional environment for a market economy ensuring operational uniformity of market mechanisms, individual sectors of the economy and the economy as a whole; real economic freedom of business entities; political will of the government; economic needs and interests the satisfaction and promotion of which will facilitate the growth of economic capacities and the well-being of every partner.

4.3.2. Background for the Development of Bilateral Cooperation

Both Poland and Ukraine have developed fundamental formal, primarily legal institutional norms ensuring the operation of a market economy. There is also the political will and legal framework for cooperation and the closing in of national economies defined in a number of legislative acts, which also determine the top priorities of social and economic convergence. Specifically, the Agreement on Economic Cooperation between the Cabinet of Ministers of Ukraine and the Government of the Republic of Poland signed on 4 March 2005 and ratified by Law No. 3535 — IV (3535 — 15) dated 15 March 2006, has become an institutional instrument for the formation of close cooperation in the economic, political and social spheres of Ukraine and Poland.

We feel that this Agreement lays down the legal institutional foundation for the sector-based convergence of the countries, as it explicitly sets forth the priorities of such convergence (Articles 1 and 2), specifically the following:

1) The intensification of bilateral economic relations in the sphere of investment, innovations and financing of economic projects,

2) The development of a transportation infrastructure and an energy supply system; cooperation in project implementation in the oil, gas and electric power sectors,

3) The development of interregional economic cooperation,

4) Cooperation in the sphere of certification and standardization,

5) The development of consulting, legal, banking and technical services, including for the purpose of supporting investment projects on the territories of the states — signatories to the Agreement,

6) The development of tourism cooperation (*inter alia*, this high-priority line of cooperation between the states is entrenched in an individual intergovernmental agreement approved by Resolution No. 870 (870 — 2006-п) of the Cabinet of Ministers of Ukraine, dated 24 June 2006).

However, one of the deeply-rooted problems associated with the convergence of any national economies emerges from distinctions in domestic priorities of economic development and the specific nature of strategic tasks related to the combination of political, social, economic and cultural factors, which a foreign economy strategy and tactics must undoubtedly take into consideration. Notably, such specific nature in Poland is primarily shaped by two political documents: Strategies for Poland (September 1993, June 1994) and Package 2000 (March 1996), which determined macroeconomic strategic benchmarks of domestic economic and social development (also approved by the Parliament and the public), as well as economic policy priorities, which would ensure the international competitiveness of Poland's economy as a whole and its individual sectors specifically. The principal task of the economic policy was defined as «the creation of a modern economy, distinctive in a considerable share of exports in the GDP, as well as vantage ground in international trade; the creation of conditions for raising foreign capital and effectively utilizing such capital in the process of development; the enhancement of the absorptive capacity of Poland's economy with regard to foreign financial tools» (Kołodko, 2000 : 94). In accordance with the goals, the documents determined strategic implementation tools, specifically the following: pro-exports transformations in industry, agriculture and other sectors of the economy; a further increase in the number of agreements concluded for the geographical expansion of target markets for Polish business entities; the elaboration of a concept for the development of trade and cooperation with the countries of Eastern Europe, specifically a system of settlements ensuring an effective use of warranties and export insurance; the stimulation of changes in the commodity pattern of imports intended to increase the share of capital and to reduce the share of consumer goods, particularly those that can be produced in the country (Kołodko, 2000 : 95—96).

Pursuant to the elaborated strategy of economic development, the sectors of non-financial and financial corporations in Poland's economy are oriented towards outward expansion, primarily in two directions: to

the West, which has turned into a domestic market for the country, and to the East — from Ukraine, Russia and to China. Therefore, one can ascertain that the first obstacle to the satisfaction of an objective need for the convergence of the economies of the two states, is the equally objective law of competition associated with the promotion of the so-called first-range interests, i.e. support of the national producer in international markets, primarily by prioritizing the national producer in the real sector of the economy within the country.

The problem becomes particularly relevant, as we acknowledge that the economic policy and economic development priorities determined in Poland are similar to the priorities of Ukraine's strategic goals.

When asked about another obstacle to convergence, political science scholars mention political competition, i.e. the aspirations of both states (primarily Poland) to play the role of the sole leader among the states of the former socialist camp (S. Pavlenko : 113, 2002 : 101). Therefore, we may ascertain that convergence, as the adjustment of competing national organisms to similar conditions of existence, requires the determination of genuinely common strategic goals of social and economic development and real reciprocal implementation tools.

4.3.3. Analysis of the Factors and the Structure of Sector Cooperation between Ukraine and Poland

The analysis of the quality and structural factors of economic growth in Poland and Ukraine, as separate integral economic systems in the globalized economic environment of the modern world, permits us to make a number of not quite optimistic conclusions about the existing tendencies of economic convergence.

Firstly, the total turnover of commodities between Ukraine and Poland is too insignificant for countries — strategic partners.

Secondly, Poland dominates in economic cooperation, even in the sale of such products, traditional for Ukraine, as agricultural products, chemicals, machine-building and metal-working products, timber, etc.

Thirdly, if we analyse the products traded between Ukraine and Poland on the basis of the dual-sector model given by Sir Author Lewis (1954), we can see the almost 100 % appurtenance of such products to the second, traditional sector characterized by the mentioned author as a sector with obsolete machines and equipment and weak connection with the market unlike the first sector, which the scholar defined as modern, with relatively advanced machines and equipment and a well-operating market mechanism. Furthermore, one probably should agree with experts from the National Institute for Strategic Research who believe that «the

analysis of the pattern of the bilateral turnover of goods permits to conclude that Poland still regards Ukraine as a source of raw materials» (Ukraine: strategic priorities). Scholars believe that this is illustrated by a considerable increase in the number of trade transactions associated with the supply of basically-processed metal produced in Ukraine to Poland where it is used for the production of goods (zinc coating of plate metal, metal structures, etc.) to be later exported to Ukraine.

The industries most closely associated with traditional technologies and an intense use of raw materials and energy resources remain the major ones in the real sector of Ukraine's and, to a considerable extent, Poland's economy. However, the case is not about the development of industries contributing to a breakthrough in innovations and competitiveness in high technology markets, as well as the transformation into the system of post-industrial relations (see Table 4.9).

Table 4.9

INDUSTRIAL PRODUCT SALES STRUCTURE FOR UKRAINE AND POLAND, 2009[1]

	Ukraine	Poland
Industry	**100**	**100**
Extraction	8.3	5.0
Processing	69.4	82.7
Including:		
Production of foodstuffs, beverages and tobacco products	19.8	18.7
Consumer goods production	0.9	4.2
Cellulose and paper production; publishing business	2.7	3.2
Production of coke and refined products	6.7	5.6
Chemical and petrochemical industry	6	10.6
Production of other non-metal mineral goods	3	4.0
Metallurgy production and production of finished metal wares	17.6	8.8
Machine-building	10.6	22.5
Electric power, gas and water production and distribution	22.3	12.4

[1] The data has been grouped by homogeneous products which, according to the Classification of the Types of Economic Activities, pertain to a relevant type of economic activity.

[2] The data has been modified to reflect the change in the primary line of economic activities by the enterprises.

Source: State Statistics Committee of Ukraine, 1998-2010 // http://www.ukrstat.gov.ua/operativ/operativ2007/pr/orp_rik/orp_06_r.htm;
GŁÓWNY URZĄD STATYSTYCZNY, Departament Produkcji // http://www.stat.gov.pl/gus/prod_bud_inw_PLK_HTML.htm

Such a state of affairs speaks about significant unutilized opportunities for cooperation, the lack of an active search for cooperation principles, methods and motives, as well as huge prospects of real convergence, subject to the determination of real priorities that will be able to guarantee the competitiveness of our countries in global markets in the future.

What allows us to make such optimistic statements? Where do we see considerable reserves or rather the beginning of convergence? As has been previously mentioned, the statements are based upon an objective need to consolidate the efforts of the two countries in order to ensure market advantages in third countries and specifically, developed states.

The ratified Agreement on Economic Cooperation (March 2006) between the governments of our countries creates a legal institutional background for real convergence in «the sphere of investment, innovation, and financing of economic projects» (Article 1; 2.2.). First, since the innovation economy, which is a high-priority strategic line of transformation of national economies practically in all subjective world countries, is at the inception stage both in Poland and in Ukraine. Second, since due to the above-mentioned circumstances, it may not presently be competitive in its relations with the mentioned countries or in relations with any other developed state.

4.3.4. Research and Technology Factors of Sector Cooperation Development

In the 20th century, the scientific and technological revolution not only altered the notions of the abilities of productive forces to satisfy public and individual material needs, but also resulted in a fundamental re-structuring of the national economy, aggregate work-force, principles, the nature and forms of the economy's operation, interaction with other business entities, as well as forms of the realization of property relations. One of the distinctive properties and requirements of a post-industrial society, which develops under the influence of the scientific and technological revolution, is a transition to specifically an innovation economy, the key feature of which is *the creation of ideas*. Bringing ideas into life requires creative approaches not only from the authors' of such ideas, but also from those who deal with their practical introduction, which increases the field of intellectual labour (R. Nureev, 100, 2000 : 138—187). For instance, at the end of the 20th century, intellectual companies of the United States, i.e. the companies whose share of intellectual workers amounted to or exceeded 40%, accounted for 28 % of the total employment in the country; however, in the last five years of the

research, these companies accounted for 43 % of newly-created jobs (T. Stewart, 157, 1999 : 281).

Such needs and changes become possible due to significant structural developments in investment processes and projects. Specifically, education and production of new knowledge remain top-priorities of investment in the economy of developed countries in recent decades, both at the macro and micro levels. Furthermore, all business entities make systematic investments in these innovation sectors of the economy: private and corporate business, the state, households, and individuals, realizing that human social status increasingly depends on the level of education. For instance, government and private expenditure on education in the United States in 1980—1990 increased by 66 % and amounted to 7 % of the GDP. Furthermore, under various evaluations, the costs associated with adult education, which in the mid-1990s engaged 76.3 million citizens or 40% of the adult population of the country in various training programs (as compared to only 13.3 % in the mid-1980s), amounted to nearly USD 150 billion.80 % of all educational institutions are funded by the state and federal governments in the United States. Consequently, at the end of the 20th century, about 60 % of the American work-force had a higher or uncompleted higher education, which is one of the best indicators in the world (V. Supyan, 158, 2001, p. 91, 92).

Such high regard of the United States government for the development of the knowledge economy[1] has turned this country into a technological and economic super-state: 45 % of the GDP in the United States is created in research, education, health care and software production; the country accounts for 36 % of global academic staff, 44 % of research costs and 72 % of the global information services market. The exports of patents and technologies from the Unites States is almost eight times higher than relevant imports. About two thirds of new jobs are created in the «new economy» and education costs exceed military expenses nearly twofold. Consequently, in the 1990s, inflation in the country dropped from 6.2 % to 2.9—3.0 % per annum; the annual average growth rate amounted to 4—5 %; the unemployment rate fell to the minimal value in the past thirty years and was equal to 3.9 % of the population able to work; and personal income grew steadily (V. Inozemtsev, 59, 2003 : 353).

In general, the 1980s, 1990s and the beginning of the 21st century demonstrate that the role of developed countries in ensuring the growth of GDP research intensity (the ratio of national costs on research and development to GDP) has been increasing considerably. According to statistics, in this process, the state covers half or more of the costs, thus

[1] The term *knowledge economy* was first introduced in 1962 by Fritz Machlup, an Austrian-American scholar.

immediately affecting the formation of an integral intellectual infrastructure and, therefore, the development of intellectual property, intellectual capital and, consequently, an innovation vector of public production development (Table 4.10).

Table 4.10

DOMESTIC EXPENDITURE ON RESEARCH AND DEVELOPMENT IN DEVELOPED COUNTRIES (R&D AS A PERCENTAGE OF GDP, %)

	USA	Japan	Germany	France	Great Britain	Italy	Canada
1985	2.8	2.6	2.7	2.3	2.3	1.1	1.4
1990	2.7	2.9	2.8	2.4	2.2	1.3	1.5
1995	2.6	2.7	2.5	2.4	2.2	1.3	1.5
2000	2.8	2.9	2.7	2.4	2.3	1.7	1.6
2005	2.6	3.3	2.5	2.1	1.8	1.1	2
2007	2.7	3.4	2.5	2.5	1.8	1.3	1.5

Source: MOST, Main Science & Technology Indicators 2007/1 (OECD), RICYT, UNESCO.

Along with a constant increase in the expenditures of developed countries at the expense of budget revenues, there is a simultaneous policy of preferences and privileges for enterprises and companies regularly engaged in certain research and development of new technologies and goods, promotion of such goods for production and for sale on the market. The elaboration and increasing flexibility of the organisational structure ensuring the institutionalization of research and development and the introduction of developments resulting from the technological revolution in mass production in the United States, demonstrate that there is an understanding by the government of the role that this sector plays in ensuring the high competitiveness of the national capital on global markets, and are also indicative of the extent to which the state effectively performs new functions associated with the strengthening of the economy in the context of information society and globalisation challenges. Consequently, about 70 % of global intellectual property rights are concentrated in the United States, while its revenues from the export of knowledge-intensive products reach USD 740 billion annually. The turnover of technology exports of the United States exceeds that of, for example, the Russian Federation (as well as that of Ukraine, with a similar correlation), Germany and Italy by over 200 times, 100 times and 14 times respectively. Meanwhile, in Ukraine, as research

suggests, less than 10 % of leading companies operate within the framework of the fifth technological mode (1996 — 2 %; 2003 — 9 %), centered on microelectronics, software, computer facilities and information processing technologies, production and utilization of automation means, space and fibre-optic communication. However, presently, a reproductive system of the sixth technological mode, centered on biotechnologies and artificial intellect systems, global information networks and integrated high-speed transportation systems, is developing.

The prevalence of low- and middle-technological production (i.e. production that belongs to the third and forth technological modes, typical of an industrial economy at the stage of development) in Ukraine's economy, even in leading companies, vividly demonstrates low quality and thus, low effectiveness of the motivation system; government negligence; inadequate de facto consideration for the role of technological progress in research and development, technical, structural, taxation, budget and social policies; and low competitiveness of the national capital in the market of high technologies and high-quality high-technology products. The governments' disregard for, as well as refusal to prioritize, the training and effective utilization of human resources, specialising in research and technology (in combination with other internal and external factors), has caused the emergence and development of negative tendencies in the provision of material resources to various sectors of the national economy, that are required for large-scale capital stock modernization, based upon progress in research and development and the scientific and technological revolution. In the 1990s, the tendencies revealed themselves in the reduction of the total number of new types of machinery created and adopted for industrial production and the slowdown of the dynamics of the upgrading of machine-building products as well as the introduction of progressive technological processes, etc. (Table 4.11)

Table 4.11

DYNAMICS OF DEVELOPMENT, PRODUCTION AND INTRODUCTION OF NEW TYPES OF MACHINERY AND TECHNOLOGIES IN UKRAINE

	1990	1995	1996	1997	1998	1999	2000
New machinery models developed (total number of items)	**593**	**498**	**437**	**335**	**268**	**266**	**335**
Including:							
Machines, equipment, devices	481	435	353	304	253	242	300
Electronics	20	15	6	5	4	3	6
Automation appliances and equipment	112	63	54	31	15	24	35
Computing hardware	9	5	7	3	3	6	6

Final Table 4.11

	1990	1995	1996	1997	1998	1999	2000
New types of product in machine-building adopted for industrial production (total number of items)	**—**	**641**	**543**	**468**	**393**	**341**	**469**
Including:							
Machines, equipment, devices	—	582	497	426	379	318	444
Electronics	—	18	15	6	2	1	11
Automation appliances and equipment	—	59	46	42	14	23	25
New progressive technological processes introduced (total number of items)	**7303**	**2936**	**2138**	**1905**	**1348**	**1203**	**1403**
Including:							
Low-waste, resource-saving and non-waste	1825	1044	688	600	467	423	430

Source: Statistical Yearbook of Ukraine for 2002. State Statistics Committee of Ukraine — Kyiv: Machinery, 2001 : 460—462.

The state of affairs at the beginning of the 21st century does not seem to have improved much (see Table 4.12)

Table 4.12

IMPLEMENTATION OF INNOVATIONS AT INDUSTRIAL ENTERPRISES

	Share of enterprises introducing innovations, %	New introduced technological processes	Including low-waste and resource-saving processes	New types of products adopted for production, names	Including new types of machinery	Share of marketed innovation products in total industrial goods, %
2000	14.8	1,403	430	15,323	631	
2001	14.3	1,421	469	19,484	610	6.8
2002	14.6	1,142	430	22,847	520	7.0
2003	11.5	1,482	606	7,416	710	5.6
2004	10.0	1,727	645	3,978	769	5.8
2005	8.2	1,808	690	3,152	657	6.5
2006	10.0	1,145	424	2,408	786	6.7
2007	11.5	1,419	634	2,526	881	6.7
2008	10.8	1,647	680	2,446	758	5.9

Source: Science and Innovations in Ukraine. Statistics — K., 2003 - 2009.

There is only one solution under the circumstances. First, the government must create conditions and motivation for the maximal comprehensive utilization of national skilled labour, which constitutes the basis of human capital — an institute recognised and evolving in any country with a developed market economy. Second, it should consolidate efforts in this endeavour with other interested countries, including Poland as our strategic partner.

At the same time, the existence of conditions for ensuring individual development through education at all stages of the human life cycle means the ability of the state to regulate the processes associated with human and social capital formation, which, after all, is an effective factor of the growth of the national economy's productivity and competitiveness. Therefore, the model of advancing innovative development must be based upon the following properties of an education system: structuring level, availability and quality sufficient to satisfy the needs of the national economy, society and science; effectiveness of the mechanisms regulating the processes of organising education by the state from the legal and financial standpoint; availability of a well-developed market space and social environment that would encourage individuals to attain and continue education, i.e. correspondence of the economic and extra-economic training motivation in the labour life cycle to the needs of the national economy and the state; availability of national and global cultural heritage, as well as an incentive system for proper acceptance and adoption of such by the citizens.

Thus, the problem of developing an innovation economy and creating conditions for the domination of sectors integrated by the economic operational principles in the national economies of the two states may become the foundation for an economic policy of the governments and business entities that will target the consolidation and convergence of individual industries in the non-financial and financial sectors of the economy.

4.3.5. Investment Determinants of Bilateral Cooperation

The formation of an innovation economy and relevant cooperation requires the consolidation of efforts, primarily in education, science, research and development, elaboration and implementation of innovation and investment co-projects at the regional and international levels, cooperation of the state and private, corporate capital, which will also ensure and support changes in the organizational forms of doing business (the establishment of Ukrainian-Polish and Polish-Ukrainian financial and industrial groups, including through mergers and acquisitions, as a form

of capital concentration and the consolidation of the competitive efforts of the partners, co-budgeting associated with the implementation of high-risk scientific and commercial co-projects, etc.).

One should note that certain fundamentals of such convergence already exist in the economic relations of Ukrainian and Polish businesses. To begin with, a certain institutional framework of the overall public administration sector has developed, exercising control over cooperation and interaction processes in the real sector of the economy. The framework includes, in addition to the above-mentioned agreements, such institutions as: the Advisory Committee of the Presidents of Ukraine and Poland, the Joint Commission for Economic Cooperation, the Ukrainian-Polish Conference for European Integration, the Intergovernmental Coordination Council for Regional Cooperation, the Annual Ukrainian-Polish Economic Forum of Businessmen, the Civil Ukrainian-Polish Forum, the Parliamentary Assembly of Ukraine and Poland, the Polish-American-Ukrainian Cooperation Initiative, the Parliamentary Assembly of the Verkhovna Rada of Ukraine, Poland's Sejm and Senate and Lithuania's Sejm, etc.

Investment cooperation tendencies are improving (as per absolute indicators). Specifically, Poland's direct investment in Ukraine's economy in 1995, 2005 and as of 1 October 2006 constituted USD 13.1 million, USD 214.9 million and USD 330.5 million respectively (though, this is only 1.7 % of the total investment in the country's economy). Poland's capital is distinctive in that it primarily goes into production, banking and finance and, to a significantly lesser extent, in commerce and services — more than 58 %, more than 23 % and about 11 % respectively.

Poland is favorably distinctive in such focus of investments, as compared to investors from other countries who are much more interested in commerce, real estate and financial transactions. This permits us to assume that Polish business is psychologically ready to invest in innovative projects in the economy's real sector, provided that the perpetual problem of high-risks associated with the implementation of such projects has been regulated and that the government guarantees an increased reward for taking such risks.

Specifically, the following powerful Polish companies are planning to significantly enhance their presence in Ukraine's economy: *Inter Groclin Auto*, *Empik Media & Fashion*, *PKM Duda* and *PZU*. *Grupa Kety SA*, a leading aluminium pipe producer, is planning to open a plant in Ukraine, by investing PLN 80 million; *Duda* is planning to invest up to PLN 100 million in livestock breeding, by increasing pig stock at its farms in Ukraine nearly tenfold — from 25,000 to 250,000 in order to become a leader in the production of meat foods in the country; *Infovide* and

Matrix.pl, Polish companies specialising in information technologies, have opened a joint subsidiary enterprise in Ukraine, etc. Significant positive changes are also expected in the financial sector. For instance, *Pekao SA*, the second largest bank in Poland which belongs to one of the largest banks of Italy — *UniCredit SpA*, plans to merge with such a Polish investor as *Credit Bank Ukraine* (the second largest bank with foreign investment in Ukraine). It intends to invest USD 100 million in a number of branch offices in Ukraine. In December 2006, *Getin Holding SA* signed an agreement to purchase the assets of *Prykarpatya Bank*, which has 30 branches around Ukraine.

We can proceed with a list of specific Polish projects associated with the penetration into Ukraine's economy. However, firstly, there is obviously a positive trend in the increase of Poland's investment in Ukraine. Secondly, the course that such increase will take is obvious as well. We should note that the expansion of Polish capital in the Ukrainian economy is primarily driven by the desire to survive competition by penetrating markets with lower operational costs (cheaper raw materials, lower labor costs, etc.). It should be mentioned that the capital primarily penetrates traditional industries, in which under certain conditions Ukraine could successfully compete in global markets. Thus, in our opinion, such tendencies of an increase in Polish capital are not indicative of the emergence of certain features of the convergence of the mentioned sectors of the national economies of our countries.

The movement of Ukrainian capital in Poland may be more interesting in terms of the formation of the signs of the convergence of individual sectors of the economy. Its total turnover is not estimated at a large amount — USD 300-400 million. However, this capital, first, goes into production, and, second, in the sectors of Poland's national economy which allow for (and require) certain innovative projects; third, it actually does not compete with Polish national capital, but rather ensures a certain support of production sectors whose competitiveness did not prove to be high. For instance, in November 2006, *General Motors* (the United States) and *Ukrainian Automobile Corporation, JSC* (*UkrAVTO*) signed a number of agreements about the production of *Chevrolet Aveo* automobiles to commence in October 2007 at *Fabryka Samochodów Osobowych* (*FSO*, Poland), which is managed by *UkrAVTO*. The vehicles will be supplied to the European market (to EU countries); production localization for the automobiles will amount to or exceed 60 %. After launching the production of the automobiles in Poland, *UkrAVTO* plans to produce automobiles in Zaporizhia at the *Zaporizhia Automobile Building Plant, CJSC*. In 2005, *AvtoZAZ, JSC* purchased *FSO*, a Polish plant, from the government, thus receiving a foothold in the EU. In 2005, the plant

produced 40,000 automobiles, which constitutes approximately one third of the enterprise's capacity.

In 2006, disputes related to the rights to *Huta Częstochowa*, a metallurgical plant, were settled in favour of *ISD Corporation*, a Ukrainian financial-industrial group, thus creating an opportunity for consolidating the efforts of Ukrainian and Polish capital in competition on the markets of the European Union.

4.3.6. The Role of the Energy Complex in the System of Bilateral Economic Cooperation

Considerable opportunities for convergence exist in the energy production (generation of electricity, oil refining) and energy supply sectors. Cooperation in the above-mentioned sectors can take various forms, including, primarily, the transportation of energy vectors as an instrument of making profits, maintaining national and European energy security, and developing common political and economic interests between Western and Eastern partners.

On the face of it, such form of cooperation seems to be the simplest, the most accessible and obvious in the process of sector convergence development. The accord of economic and other interests of Poland and Ukraine is irrefutable. However, there are no simple solutions in complex systems, with the globalised economy being one nowadays. On the one hand, key partners, such as Ukraine, Poland and the European Union, are inclined to cooperate, which can be demonstrated by real measures taken by all interested parties. However, there are a number of countries, specifically the United States and Russia (as well as Azerbaijan, Turkey, etc.), whose interests are not entirely incompatible, but do not always concur with those of Ukraine and Poland.

Irrespective of the above, the energy sector in the economies of our countries can become fertile ground for convergence, though this also involves certain challenges associated, first and foremost, with different levels of adaptation of the sector's components to market conditions. Specifically, we are referring to oil refining and electricity production by various methods, with the application of various energy sources. One should mention that presently, Ukraine is inferior to Poland in the technological, organisational and, thus, market dimensions in the oil refining sector. This is primarily attributed to different approaches to maintaining a fuel and energy balance in our countries: while in Ukraine it is dominated by natural gas (approximately 50 %), coal (over 28 %) and the nuclear power industry (over 13 %), in Poland coal

(approximately 65 %) and oil (approximately 23 %) prevail. Respectively, in Poland, in times of real independence, cutting-edge technologies for crude oil refining permitted the enhancement of industrial capacity utilisation at all seven oil refineries to a level of 87.4 % (2002), while in Ukraine it amounted to only 38 % in 2002 (H. Burlaka, 14 : 28). Similar distinctions exist in the geography of oil supply sources: while in Poland up to 50 % of oil is supplied from the Middle East and Norway, in Ukraine about 87 % of oil is supplied from Russia. Furthermore, outdated technologies at Ukrainian oil refineries do not permit the significant enhancement of the share of high-octane petrol and eco-friendly fuels, which could be exported to European Union countries. At the same time, the modernized *Plock Oil Refinery* is in the top ten modern European oil refineries. Thus, in our opinion, convergence in this sector is possible only subject to the establishment of financial and industrial co-groups through mergers and acquisitions, i.e. through the consolidation of interests, capitals, and efforts in the aspiration for expansion in foreign markets. Convergence in the energy sector, connected with energy production development, can prove to be more fertile ground, including at nuclear power plants. The transportation, production, and sales interests of Ukraine and Poland, as well as the interests of their joint economic security, interweave and certain co-projects exist and are de facto implemented in this sector.

4.3.7. Conclusions

Summarising the findings of our research in the problems of sector convergence of the economies of the two friendly states, it should be noted that, first of all, such convergence has the nature of an incipient tendency. It is objectively based on the effect of market, social and political laws that determine the needs for the development of similar, related features and properties of our economic, social and political systems, our societies and, thus, our strategic interests. Secondly, the key directions and forms of such convergence may originate in, first and foremost, those sectors and branches of the economy where our interests interweave, however do not conflict, and where the promotion of such interests is beneficial to both societies. We are referring to the following sectors: education, research and development, innovative projects of mutual interest, transit services, as well as the system of extra-economic (political, legal, social) institutions. The failure to develop and effectively utilize the above-mentioned in the process of outlining and consolidating economic interests, renders the implementation of sector-based economic convergence impossible.

4.4. Poland's Trade Policy Instruments in the Context of Polish-Ukrainian Cooperation

4.4.1. Introduction

Openness of the economy to international competition was one of the main elements of the economic reform implemented in Poland in the 1990s. The process was supposed to enhance the foreign economic competitiveness of Poland's economy, stabilize prices for goods and raw materials and provide Polish enterprises and consumers with goods which were not produced or produced in insufficient quantities in Poland itself. The trade liberalization process was dramatically impacted by the commitments undertaken by Poland during the Uruguay Round (GATT), as well as commitments under agreements on free trade areas (FTAs) concluded with the European Union, EFTA[2], CEFTA[3] and a number of other states[4]. The Europe Agreement played a key role in the process, since it envisaged limited liberalization of the trade of agricultural goods and the elimination of all barriers to the trade of industrial goods within the next ten years (creation of a free trade area). Along with the dichotomy in goods exchange principles, there was an asymmetry of the liberalization schedule — Poland, as a weaker partner, opened its market at a slower pace; however, the process of opening the market was not conflict-free. Not only national producers, but also foreign investors sought protection from international competition.

4.4.2. Trade Policy Instruments Utilized by Poland[5]

Because of multilateral commitments, including those arising from FTAs, Poland lost the opportunity to autonomously influence the level of customs protection. First of all, within the framework of the Uruguay Round of GATT, Poland bound its duty rates for the import of the majority of industrial goods (92.2 % of tariff proposals) and all agricultural goods, preserving the right to influence the customs policy (without binding duty rates) only with regard to some merchandise

[2] European Free Trade Association (EFTA)

[3] Central European Free Trade Agreement (CEFTA)

[4] The Europe Agreement provisions on trade and trade-related matters came into force on 1 March 1992; the EFTA — Poland Free Trade Agreement took effect on 15 November 1993; the CEFTA — Poland Free Trade Agreement came into force on 1 March 1993. Poland also concluded bilateral agreements on the creation of a free trade area with the Baltic states of Lithuania, Latvia and Estonia (1996—1998), Israel (1997), the Faroe Islands (1998) and Turkey (1999).

[5] The following references have been used in this sub-section: Annual Report…, 1994—2004; Polska w WTO, 2002; Umowy o wolnym…, 1995.

(specifically: automobiles and spare parts, petroleum lubricants, wool and linens). During the negotiations, establishing the binding level for duties, the Polish side took EU rates into consideration. A general principle was adopted that Polish conventional rates would not be lower than those of the EU (Por. W. Mroczek, 2002). Furthermore, Poland's accession to the WTO and the signing of FTAs resulted in the liberalization of Polish trade, which manifested itself in a consistent reduction of duty rates and the introduction of tariff quotas on a significant number of commodities.

There was a third factor affecting the level of duty rates established in the Polish tariff: the provision of unilateral preferences to developing states by the country. Imports from the least developed countries (49 countries included in the list of the United Nations) was subject to zero duty rates, while imports from the countries which GDP per capita that did not exceed that of Poland was subject to rates that were reduced by 20 % as compared to conventional rates. These rates (*LDC* and *DEV*) are called preferential in customs tariffs. However, the goods that are sensitive for Poland's industry were excluded from the list of preferences.

On 1 July 1995, Poland became a founding member of the WTO. The process of reducing conventional duty rates for industrial goods began on 1 January 1995. Conventional rates were applied to imports from WTO member states and from the states that were not members of the WTO, but which were subject to Poland's most-favored nation treatment (MFN). Thus, the reduction of conventional rates also applied to imports from Russia and the other CIS states.

Thus, Poland reduced its duty rates for industrial goods on average by 38 %. The reduction was the most rapid for those rates that remained at a relatively low level before the end of the Round (5—10 %). The reduction was the slowest for relatively high duty rates (25—35 %) that protected sensitive goods (fabric, clothes, metallurgic products). In practice, the mentioned measures carried considerably less weight, since in many instances they were implemented with respect to the bound rates, rather than those applied de facto at that time. The reduced rates, i.e. the rates applied to imports from states — signatories to FTAs with Poland, were significantly reduced. Starting in 1995 and lasting for the next 5 years, duties for most industrial goods from the EU and EFTA countries were reduced overall by 20 %. Automobile duties were the last to be reduced (2002). Before the provisions on trade and trade-related matters of the Europe Agreement and agreements with EFTA states came into force, Poland abolished or reduced duties with regard to nearly one third of imports from the above-mentioned states (raw materials and capital goods) in order to accelerate the modernization of Poland's economy and to reduce production costs. Liberalization within the CEFTA framework

went at a much faster pace. From the beginning of 1997, the import of the majority of industrial goods from the member-states was duty-free.

Conventional duty rates for agricultural products were also subject to reduction (on average, by 36%, however not less than by 15 %). In view of the rate fixing of non-tariff instruments conducted at the Uruguay Round, the initial duty rates for agricultural goods were much higher than those for industrial commodities. However, the rates that were applied in practice were even lower than those.

The liberalization of trade in agricultural products within the framework of free trade agreements was insignificant. These agreements did not guarantee free access to the Polish market, but only facilitated access to a certain extent and only with regard to certain agricultural products.

As a result of multilateral regional liberalization of trade in 1995—1999, the average level of duty rates in Poland was significantly reduced. In 1999, the average weighted duty rate was nearly half that of 1995 (reduced from 6.1 to 3.2 %). Duty played a minimal role in the import of industrial goods from EU and CEFTA states (see Table 4.13). About two thirds of Poland's industrial imports were duty-free (in 2003 the share amounted to 87 %). The average weighted duty rate for agricultural goods was several times higher than that for industrial goods.

Table 4.13

AVERAGE WEIGHTED IMPORT TARIFFS IN POLAND IN 1999 (IN %, ACCORDING TO THE 1998 COMMODITY STRUCTURE OF IMPORTS)

HC	Description	Without suspensions				Including suspensions			
		EU	CEFTA	Other countries	Total	EU	CEFTA	Other countries	Total
I—XXI	All goods	2.3	1.8	7.1	3.5	2.3	1.8	6.5	3.3
I—IV	Agricultural products	18.2	11.6	13.0	16.0	18.1	11.6	12.7	15.8
V—XXI	Non-agricultural products	0.8	0.5	6.1	2.3	0.8	0.5	5.5	2.2

Source: WTO, «Trade Policy…», 2000.

The increasing difference between reduced and conventional rates (so-called reverse discrimination) (Kaminski B., 2001) has had a trade diversion effect on Poland's economy towards pro-European orientation.

The Europe Agreement and FTAs envisaged the application of a so-called restructuring principle, which, for the purposes of protecting new sectors and branches of the economy that were in the process of

restructuring or facing various problems, allowed Poland, as a weaker partner, to introduce additional duties for goods, the import of which has already been subjected to liberalisation. The country utilized the restructuring principle three times. In 1994, an additional duty on telecommunications equipment was introduced (specifically, telephone, telegraph apparatus, and teletypes). The import of such goods from EU and EFTA countries was fully liberalized with the coming into force of free trade agreements. Telecommunications were included in the category of newly-created industries. The lack of customs protection discouraged foreign enterprises from investing in Poland and hindered the development of existing enterprises. Poland also utilized the restructuring principle in the petrochemical (1996) and metallurgical (1997) sectors. In the first instance, Poland raised the duty and continued the liberalization process until 2000 (according to the preliminary schedule, duties were expected to amount to 0 % as early as in 1999). In the other case, it slowed down the process of duty abolishment, extending the domestic market protection period for two more years (Zagraniczna polityka…, 1997). Poland's authorities believed that the industries would be restructured during the validity period of additional protection, which would allow enterprises to compete in the international market when zero tariff rates were in effect.

In December 1992, according to the GATT provisions on balance of payment, Poland introduced a 6 % tax on the import of all goods, other than alcohol and tobacco products, fuels and automobiles (DzU 1992…). The tax introduction was due to the fact that as a result of an intensive drought in 1992, currency reserves were under threat. The tax was gradually reduced and on 1 January 1997 completely abolished.

The policy of conventional protectionism instruments, or in other words, liberal non-tariff tools and trade restriction due to non-economic reasons, required adjustment to WTO requirements (the customs law of 1989 was not in line with WTO requirements). On the day that Poland acceded to the WTO, the Parliament adopted the Law on the General Framework, Requirements and Rules of Introducing Additional Customs Duties on the Import of Certain Agricultural Goods (dated 28 June 1995), which was based upon a special protection principle of the WTO Agriculture Agreement. In 1998, along with the Customs Code, four laws came into force, which regulated the policy of market protection and foreign trade turnover[6]. These included: the anti-dumping law, the law on

[6] The Laws of 11 December 1997 (DzU 1997 nr 157, poz. 1026—1029, ze zm.) on: 1) safeguard from the import of goods onto Poland's customs territory and dumping thereof; 2) safeguard from excessive import of goods onto Poland's customs territory; 3) safeguard from excessive import of some textile goods and clothes onto Poland's customs territory, regulation of the turnover of foreign trade in goods and services and on special turnover.

protection from the excessive import of goods onto the customs territory of Poland (general and textile) and on the regulation of the turnover of foreign trade in goods and services, as well as on a special turnover. The anti-subsidy law took effect in November 2002 (dated 21 June 2002).

These laws (amended in 2001) were in force until Poland became a member of the EU. Even though from the very beginning one could predict that certain provisions of these laws would not be utilized in practice, for instance, the anti-subsidy law or the law on the regulation of the turnover of foreign services (no normative act was issued under these laws), nonetheless, they helped Polish business entities to learn about the EU principles. Following accession to the EU, the Polish government retained its authorities associated with the issuance of export and import transaction permits and the introduction of restrictions on foreign economic activities pursued for non-economic motives. These issues are regulated by the law on foreign trade turnover administration, which took effect on 1 May 2004 (dated 16 April 2004).

Owing to the above-mentioned laws, non-tariff measures for the protection of the national industry from foreign competition became popular. The reduction of tariffs resulted in a rapid growth of the import of goods at competitive prices from Asian countries and second-hand goods from the EU. To counteract the negative consequences of unfair and excessively increasing imports, Poland's government, pressured by representatives of national industry, took various, often ineffective measures (for instance, an ad hoc protection investigation in the case of tractors). This led to strong opposition from importers and generated numerous warnings from Poland's trading partners, primarily from the European Union.

One of the protection tools utilised in Poland was investigations in the case of excessively increasing imports (this phenomenon was also present in other states of Central and Eastern Europe). The tools of protection from unfair import (i.e. on dumping or subsidising) were not much utilized.

Since the coming into effect of the anti-dumping law which was amended to meet WTO requirements (1998), Poland has conducted only six new anti-dumping investigations, including one against an EU member-state (all initiated by producers). No anti-subsidy investigation has been conducted. The utilization of both instruments required the issuance of relevant implementing regulations, capacity-building efforts for the administration and judiciary, producers' awareness of complex procedures and their relevant organisation. During this period, Poland conducted 19 investigations against excessively increasing imports, including 5 on the basis of the textiles law (13 resulted in the application

of the protection instrument)[7]. The majority of investigations pertained to imports from states — non-members of the WTO (China, Taiwan and CIS states). This permitted the selective application of instruments and, furthermore, did not require providing any proof of inflicted damages or submitting an application to the WTO forum. The investigations concerned goods that were often involved in a similar investigation in other states as well (for instance, there was a domino effect in the case of ammonium nitrate and some steel works). Several of the investigations ended without the application of protection measures. Generally, this happened due to insufficient evidence (lack of evidence of essential damages inflicted upon the national industry or a threat of such, lack of interrelation between the damages inflicted and imports). In some instances, the instruments were utilized, however later cancelled by virtue of a court decision or a decision rendered by a WTO body before the end of their validity period.

Poland also introduced additional duties on the import of numerous agricultural products (for instance, flowers, tomatoes, and poultry). The above-mentioned duties were standardized when the tolerance quantity was exceeded or when the goods were imported at a price which was minimally 10 % lower than the ceiling price.

Pursuant to the Europe Agreement and other agreements on free trade areas, Poland prohibited the import of passenger vehicles that were more than ten year old and commercial vehicles that were more than six years old until the end of 2001. New principles for the import of used automobiles took effect in March 2001 (Ministerial Order …, 1997). The import of de-registered or damaged automobiles was prohibited. These rules were introduced consequent to a significant increase in the import of used vehicles, which presented a threat to road safety and the environment (the need to dispose of old vehicles), and an adverse impact of the import of old vehicles on national automobile producers and other enterprises pursuing their activities in this sphere (distributors and leasing companies). In July 1994, Poland introduced a ban on the import of used combine harvesters. The ban was abolished in 1997 under the pressure of the European Commission, which concluded that the rules for the introduction of such tool were not in line with the provisions of the Europe Agreement.

Until 1997, according to the FTAs, quotas were applied to the import of petrol, diesel and energy-producing fuels, while the import of lubricants oils was subject to a relevant permit. As mentioned earlier,

[7] Previously, Poland introduced safeguards referring to the general safeguard principle of the Europe Agreement and other free trade agreements (for instance, in 1994 in the automobile sector).

from 1996 the sector was subject to additional protection introduced according to the re-structuring principle.

Export restrictions primarily arose from Poland's international commitments or from the limitations introduced by Poland's trading partners (the EU, the USA and Canada). Poland autonomously applied restrictions to the export of raw and tanned leather, cast iron, steel and non-ferrous metals waste and scrap, as well as live goose and goose eggs. The procedure associated with the introduction of export restrictions on leather and scrap and the lack of an explicit liberalization schedule generated warnings on the part of European Commission and Member States

4.4.3. Poland and Ukraine: Comparative Analysis

The conditions for access to the EU market for Ukrainian and Polish goods in the period of systematic transformation were established by the autonomous decisions of the EU and bilateral agreements. The first group included decisions about the abolishment of specific and non-specific restrictions, the application of a generalized system of preferences, the provision of a market economy status and the introduction of quantitative restrictions on imports from Ukraine. The second group included: the Europe Agreement, the Partnership and Cooperation Agreement between the EU and Ukraine and sector-specific agreements between the EU and Ukraine. The preconditions for the access of Polish and Ukrainian goods to the EU market, established by the above-mentioned decisions and agreements, are outlined in Table 4.14.

On the basis of the pre-conditions given above, Poland and Ukraine can be placed in the so-called EU pyramid of preferences; however, since 1990, Poland has had a much higher ranking. At the beginning of the 1990s, when Poland was already enjoying the GSP customs benefits, imports from Ukraine still faced a significant number of discriminatory barriers. In 1993, when the EU granted GSP preferences to Ukraine[8], Poland was already an associate member of the EU and was developing a free trade area for industrial products. Since then, regardless of various concessions from the EU, Ukraine's place in the EU pyramid of preferences has not changed, but as a matter of fact has even regressed, for instance, in comparison to the Balkan states and Albania. Ukraine's position improved somewhat following the signing of an agreement with the EU on a free trade area.

Paradoxically, irrespective of Poland's more favourable status, Polish exports faced significantly higher barriers to European market access,

[8] Regardless of the improved conditions of EU market access, the EU preserved discriminatory restrictions on the import of steel and textile products from Ukraine.

than the Ukrainian ones in the first half of the 1990s (Figure 4.4). The goods exported at zero or low rates constituted a significant share of Ukraine's exports to the EU. The situation dramatically changed in 1996, when Poland was granted free market access for the majority of goods exported by Poland to the EU. The GSP customs preferences granted to Ukraine did not materially affect EU market access for Ukrainian goods, since such preferences did not cover many essential components of Ukraine's exports. Only in 2006, as the new GSP principles took effect, did Ukraine have the opportunity to appreciate the benefits of the given preferences.

Table 4.14

COMPARISON OF EU MARKET ACCESS CONDITIONS FOR POLAND AND UKRAINE IN 1990—2008

Conditions	Poland	Ukraine
Abolishment of specific restrictions	1990	1992
Abolishment of non-specific restrictions	1990	1992 (suspension)
Customs preferences of the GSP	1990 — 1 March 1992	Since 1 January 1993
General conditions for market access	• Industrial products: 1992—1996 — preferential 1997—2004 —duty-free, with exceptions • Agricultural products: preferential	MFN with exceptions (steel, textile) on the basis of the CPA in addition to GSP benefits
Anti-dumping investigations	Applied until 2002	Still applied
Granting of market economy status	1 March 1992	21 December 2005
Limits on the import of textiles	Have not been applied since 1998	Not applied since March 2001
Limits on the import of steel	Have not been applied since 1992	Applied until the date of entry into the WTO
Average weighted customs duty rate for EU market access, %: 1992 2005	 5.2 0	 2.17 1.38

Source: Developed by the author on the basis of EU normative acts and the WITS database.

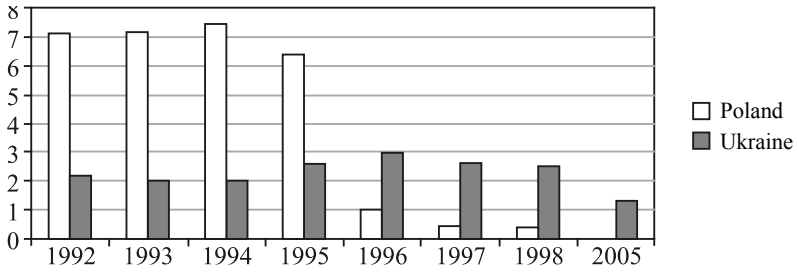


Figure 4.4. EU Customs Duty Rates, Average Weighted by Poland's and Ukraine's Imports

Source: developed by the authors on the basis of the WITS database.

Another example of the EU's discriminating attitude towards Ukraine and Poland would be the decision of the Council of the European Union to grant market economy status to the countries. Poland was granted such status on 1 March 1992, while Ukraine was granted one over 13 years later. In addition to the political nature, this was also of significance to anti-dumping investigations (lower dumping limits and, consequently lower anti-dumping duties).

The conditions for the access of goods to the Ukrainian market, particularly that of agricultural products, as compared to those of the other CIS states, Central Europe (in the time of associate membership) and even the EU[9], can generally be called liberal. This positive assessment is primarily affected by a relatively low level of customs protection. A considerable share of Ukrainian imports is duty-free (in 2006, nearly two thirds of the aggregate value). The primary users of free access to the Ukrainian market are the CIS states, first and foremost Russia. Before Poland's accession to the EU, EU states, EFTA and CEFTA states, as well as Turkey and Israel enjoyed free access to Poland's market of industrial products (in 1999 and 2003, the share of duty-free imports in Poland's aggregate imports of industrial goods from the above-mentioned countries amounted to over 70 % and 87 % respectively). Also, the duty-free conditions applied to a large share of Polish industrial imports from the CIS states and the states with MFN status (in 2003, over 74 % and 34 %, respectively).

[9] This may be supported, specifically, by the Overall Trade Restrictiveness Index (OTRI) of the World Bank, which includes MFN duty rates and non-tariff barriers, and the Index of Trade Freedom of the Heritage Foundation. In 2008, this index for Ukraine (82.2 %) is slightly lower than the index for Poland (86.0 %), while for Russia (44.3 %) this index is significantly higher (World Bank, *Ukraine*…).

In the 1990s, the level of customs protection in Ukraine was on average lower than that of Poland (the simple average duties were lower and in the case of average weighted rates, the difference was even greater). It was only following the completion of the regional and multilateral liberalization process in Poland that the situation changed dramatically and Polish average rates became lower than Ukrainian ones (Figures 4.5 and 4.6). In 2005, Ukraine significantly reduced the average level of duty rates. Thus, consequently, it acceded to the WTO with average rates which were significantly lower than those of Poland at the time of Poland's accession to the EU.

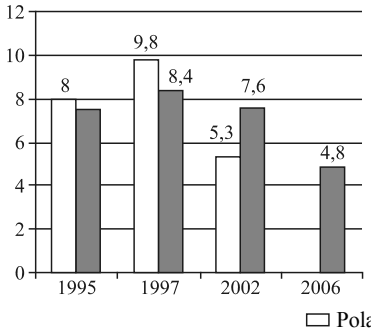


Figure 4.5. Simple average Tariff Rates Applied by Ukraine and Poland

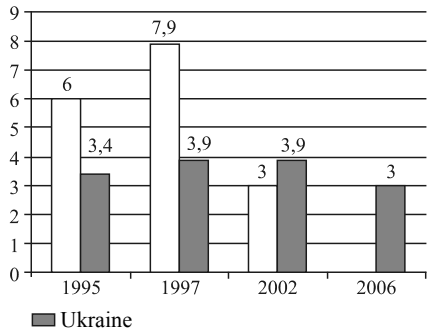


Figure 4.6. Weighted Average Tariff Rates Applied by Ukraine and Poland

Source: the WITS database.

Note: the 2006 data for Poland is not available, as since 1 May 2004 imports to Poland are subject to EU rates (in 2006, the simple average MFN rate in the EU amounted to 5.4 %, while the average weighted one equalled 3.4 %).

Reducing the level of customs protection pursuant to international obligations, both countries willingly utilized other instruments of trade policy in order to protect their national industry from foreign competition. In Ukraine, metallurgy, automobile and food industry primarily enjoyed government protection. Safeguards were also utilized to protect other capital-intensive branches, for instance, the production of fertilizer and cement. In Poland, during the period of economic transformation, two sectors enjoyed special protection: the automobile and fuel sectors. The association of the above-mentioned sectors with particularly sensitive branches of the economy can be supported by the WTO decision not to establish binding duty rates for automobiles, spare parts and petrochemical products, as well as by special provisions of the Europe Agreement and other FTAs. Safeguards in the production of consumer goods (footwear, textiles and clothes production)

were established under pressure from national producers. Protection from increasing and unfair imports became an element of the sector-based Consumer Goods Production Strategy for 2000—2005.

Both states also took safeguards to protect newly-created sectors: while in Ukraine the government was primarily pressured by national investors (producers of household goods, specifically foodstuffs and furniture), in Poland the government was mainly pressured by foreign investors (for instance, extraordinary duties on telecommunications). In Ukraine, the strategy of the protection of new industry also covered export policy instruments.

The import of used goods from the EU presented a great problem for Poland. In response to complaints filed by producers (clothes, agricultural and construction machines, and automobiles), the government took measures to cope with the issue, however initially with no effect. In Ukraine, the problem mainly concerned used automobiles (import quotas were in effect prior to entry into the WTO).

Undoubtedly, Ukraine's customs policy was mostly distinctive in, and characterised by the extensive application of export restrictions. The *keep goods at home* strategy was intended to counteract the de-industrialisation of Ukraine and the creation of a raw material base for Western states, as well as to provide the industry with cheap raw materials in order to launch the national production of consumer goods. In the 1990s, having regard for processing industry interests, Poland also had problems with the excessive export of raw materials (leather, ferrous and non-ferrous metal scrap). The problem was exacerbated, since the replenishment of supplies with the help of imports was problematic in view of export restrictions introduced in other countries (in particular, in Ukraine). Pressured by the European Commission, Poland gradually abolished such restrictions. Ukraine showed more resistance in this matter. During WTO accession negotiations, it refused to entirely abolish export duties, only agreeing to gradually reduce them.

Assessing the application of trade policy instruments, one must mention the role of advocacy groups. In Poland, importers were particularly active, while in Ukraine advocacy came from industrial financial groups, which often controlled an entire branch of production. The difference was in that the Polish importers utilized more formal methods (for instance, appealing in court), while in Ukraine the pressure was mainly unofficial, typical of an insider economy.

Ukraine adopted legislation on market protection based upon WTO principles in the first half of 1999, thus slightly more than a year after Poland, which became a member of the WTO in mid-1995. Both countries included some EU elaborated materials into protection laws. The application of European principles most vividly manifested itself in

new customs codes. Pursuant to the Europe Agreement, Poland undertook a commitment to approximate its customs law to EU norms and even when there was no such commitment («protection laws»), it took EU legislation as a basis almost immediately (EU legislation is adjusted to WTO principles, however envisages a more detailed regulation of a number of cases). Even though having committed to harmonize a significant part of its customs legislation with that of the EU on the basis of the 2004 Plan of Action, Ukraine failed to do so in a timely manner. The adaptation of Ukraine's legislation to *acquis communautaire* was slowed down due to a lack of a clear prospect of EU membership and, to a certain extent, negotiations with the United States within the framework of WTO accession, during which other solutions were proposed to Ukraine. Ukraine believed that concentrating on the EU alone, could do harm to the successful completion of the negotiations.

The rules of introduction were an essential element in the application of trade policy instruments. In Poland, market protection measures were introduced by the Minister of Economy, while prohibition was within the Council of Ministers' competence. In Ukraine, until April 2004, the Parliament made decisions in matters pertaining to the establishment of import and export quotas and licenses on the basis of a relevant submission by the Government, by adopting individual laws, which enhanced the protection orientation of Ukraine's economy. In April 2004, along with changes to the Law on Foreign Economic Activities, a principle was introduced that the establishment of quantitative restrictions should be within the government's competence.

In Poland, the customs tariff was established by the Council of Ministers by issuing an instruction (in 1990—1997 in the form of an annex to the Customs Law and from 1998 and until Poland's accession to the EU — in the form of an annex to the Customs Code). In Ukraine, duties were introduced according to an administrative procedure until mid-2001, at which time, the Law on Customs Tariff took effect, delegating the exclusive authority of making changes to duty rates to the Verkhovna Rada.

Changes in the commodity structure of Poland's and Ukraine's exports to EU-15 of 1996—2000 illustrate quite well the difference in the economic transformation processes in the countries. In the mid-1990s, capital-intensive goods prevailed in Ukrainian exports to the EU-15, while labour-intensive products constituted a significant share of Poland's exports to the EU-15. However, Poland's exports changed dramatically in the relevant period: the share of machines and equipment, as well as transport equipment and plastic materials grew considerably (overall, from nearly 28 % to nearly 50 %). The share of textile materials shrank significantly. The share of mineral products (coal) diminished as well.

Instead, Ukraine reinforced its position as a supplier of raw materials and goods with a low level of processing. Presently, two groups, mineral and metal products (specifically due to increased quotas), constitute more than half of exports to the EU. The exports of textiles and clothes, irrespective of an insignificant reduction in the aggregate exports of Ukraine to the EU, continue to maintain quite a high position, which is affected by the procedure of applying a greater degree of processing. In view of much higher labour costs, Poland is not competitive in this case.

The commodity structure of Poland's imports to the EU-15 has changed less. Machines and equipment, transportation equipment, chemicals and basic metals continue to be the major commodities (57 % and 63 % in 1996 and 2006, respectively). The first three groups also have a substantially increasing share in the commodity pattern of Ukrainian imports from the EU-15 (61 % in 2006). The share of machines and equipment in the relevant period increased from 27.4 % to 33.1 %, while the share of transportation equipment grew from 4 % to nearly 12 %. Summing up, we can say that the difference in the commodity pattern of imports from the EU-15 to both states is considerably less than that of the commodity pattern of exports to the EU-15.

Changes in the commodity structure of Poland's and Ukraine's trade with the EU are also illustrated by indicators of intra-industry trade intensity. Analysing them, it can be seen that the share in Poland's trade with the EU-15 in aggregate trade (calculated by the simple and adjusted Grubel-Lloyd index) shows systematic growth from 1996, while the share of Ukraine's intra-industry trade with the EU-15 has been diminishing. In 1996, the simple G-L index for Poland was twice as high as that of Ukraine. 10 years later this difference has increased twofold.

4.4.4. Conclusions

General results validate the thesis about the stimulating impact of economic integration on the development of intra-industry trade and illustrate the consolidation of the poor commodity structure of Ukraine's exports, as well as Ukraine's non-utilization of the benefits arising from its geographical location (proximity to large markets), as the basis for attracting direct foreign investment and changing trade for the purpose of greater diversification and specialisation. The Ukrainian economy depends to a large extent on several sectors with low value added, low productivity and high vulnerability with regard to smallest price and currency fluctuations, as well as extraneous shocks. Export diversification, along with the reduction of production energy-intensiveness, is essential for the stabilisation of Ukraine's economy.

4.5. Commercial Diplomacy in Bilateral Relations

4.5.1. Introduction

The development of a global trade system under the auspices of the World Trade Organization has resulted in dramatic changes in national support systems associated with international economic activities. Firstly, the nature of such systems has changed from primarily paternal and protectionist to de facto supportive. While previously, in order to stimulate national production and exports, governments actively utilized quantitative restrictions and direct production subsidisation, after the de facto prohibition of the above-mentioned, and pursuant to WTO rules, high priority was given to the following methods: informational, methodological, organisational and legal facilitation of international activities, diplomatic support for the development of trade and economic relations, and the development of a positive image of the country as such. Secondly, the role of support systems for international activities in the social and economic development of countries has been enhanced: while traditionally they were viewed as a merely economic mechanism for increasing national exports on a par with the increasing competitiveness of goods and services, and marketing efforts for exporting companies, presently effective support of international activities is transforming into a factor, contributing to the development of the national economy's competitiveness.

4.5.2. The Substance and Tasks of Commercial Diplomacy

The somewhat comprehensive notion of commercial diplomacy should be interpreted as activities pursued by the officials of various governmental and non-governmental institutions to promote national economic interests. Commercial diplomacy has the following key forms: participation in bi- and multilateral negotiations on economic matters; promotion of the economic interests of the state in relevant international organisations; activities of trade or economic missions and representations at embassies; activities of foreign representative offices of national chambers and associations of commerce and industry.

In global practice, commercial diplomacy is tasked with the following:

— Creating the best and most advantageous conditions for the participation of the national economy in the global economy, including increasing the share of the country's participation in the global economy, reinforcing the opportunities to effectively impact international economic

relations (the USA, the EU and the Russian Federation practice commercial diplomacy to affect the structure and dynamics of international economic relations, i.e. they seek to play a dominant, crucial role in the development and regulation of such relations. Other countries utilize commercial diplomacy methods to achieve equality in trade, international organisations, etc.);

— Providing economic and political facilitation to domestic business in its foreign activities, including in reallocation matters — by enhancing its competitiveness, reinforcing the right of access to existing and potential resources and markets;

— Promoting national interests and ensuring national security, which would guarantee the accomplishment of national tasks and prevent market interests and priorities from imposing their will on the entire society (in general, this principle reads: a market economy does not mean a market society); thus, it becomes clear that national interests prevail over others;

— Creating most favourable conditions for developing human capital in the country, increasing the intellectual component in national wealth, raising the standards of living and enhancing the quality of life, ensuring the most advanced social standards (which may not be achieved exclusively by a spontaneous action of market forces) (The New Economic…, 2003; Soren Kjeldsen-Kragh, 2001; V. Shchetynnyk, 2001; Global Trade…, 2003).

The above-mentioned tasks of the state system of commercial diplomacy also include reconciling conflicting interests (for instance, corporate and public), establishing mutually acceptable rules of the game in bilateral relations and on the global level, bringing parties to interstate commercial and economic conflicts to the negotiation table, resolving disputes by reaching a compromise, etc.

Presently, the foreign economic policy of the state and even more so its trade policy are affected by commercial diplomacy methods and mechanisms and represent a product of efforts designed to balance national interests, applicable provisions of international commercial law and similar interests of other states and groups of states. Foreign economic activities of governments in the form of commercial diplomacy continuingly acquire marketing features, which manifest themselves in the following:

— Implementing ongoing monitoring of the status and development tendencies in global commodities markets and financial markets in the search for market opportunities to be utilized by national producers or for the purpose of developing cooperation relations;

— Determining regional priorities of economic activities and designing relevant measures for the development of bilateral relations;

— Orienting towards competition both while supporting competitive industries of the national economy on the global market and taking measures to develop state competitiveness as such;

— Strategically orienting economic activities, creating long-term programs for the development of industries and regions, adapting the structure to the imperatives of the international division of labour; and

— Creating a positive image of the country in the global arena by demonstrating a progressive political position, participating in peacekeeping and anti-terrorist actions and developing international contacts in the sphere of culture, sports, science and education (T. Tsyhankova, 2004 : 105).

Ukraine's foreign economic activities are directed towards developing such relations with other states that would contribute to the strengthening of the national economic system, economic development based upon innovations and high technologies, promotion of national products in international and regional commodities markets, as well as the prevention of extraneous threats to the economic sovereignty and economic security of the state. The state has shifted its focus from direct control and participation in foreign economic activities to the creation of favorable customs, tax, legal and other normative conditions for exporters, as well as to the protection of their interests on global markets and support through the provision of information and consultations. It becomes increasingly more difficult to draw a line between politics, economy and trade. In view of the complexity of the current international business environment, specific features of its components and the prospective intensification of competition associated with the promotion of national interests on the global market, states, including Ukraine, are tasked with bringing such policy onto the track of acceptable trade-offs and reciprocal international economic cooperation. This is precisely why Ukrainian business requires higher effectiveness of all commercial diplomacy forms and methods at all levels from all national players of commercial diplomacy (Table 4.15).

On the global level, the mechanisms and processes of the economic diplomacy of various countries are coordinated through participation in international organizations. Ukraine is a founding member of the United Nations Organization (the UN or the United Nations), a member of the Council of Europe and a participating state of the OSCE. As a founding member of the United Nations, Ukraine is consistently committed to the goals and principles of the Charter of the United Nations and makes an essential contribution in its activities in the sphere of international peace and security, disarmament, economic and social development, human rights, international law, etc. Ukraine has repeatedly been elected a member of the Economic and Social Council of the United Nations.

Table 4.15

LEVELS AND KEY ACTORS OF COMMERCIAL DIPLOMACY IN UKRAINE

Levels	Key Players
Global	Representation in international organisations: — Intergovernmental (the World Trade Organization; the World Customs Organization; the International Exhibitions Bureau; the UN/UNCTAD, the UNCITRAL, the International Trade Centre); — Non-governmental (the International Chamber of Commerce, the International Association of Fairs and Expositions, the Consumers International); — Mixed (the International Labour Organization, international business associations).
Supranational	— The Mission of Ukraine to the European Union; — Missions to the bodies of the CISs, BSEC, GUAM, etc.
Intergo-vernmental	— Trade and economic missions at Ukraine's embassies abroad; — Committees of heads of states; — Intergovernmental commissions on trade and economic cooperation.
Governmental	— The Verkhovna Rada of Ukraine; — The Secretariat of the President of Ukraine; — The Cabinet of Ministers of Ukraine; — Industry-specific ministries and agencies (first and foremost, the Ministry for Foreign Affairs and the Ministry of Economy); — Regional authorities.
Business	— The Ukrainian Association of Producers and Businessmen (UAPB); — The Chamber of Commerce and Industry (CCI); — Sector, production and trade associations.

Presently, Ukraine is a member of the Committee for Programme and Coordination of the United Nations, the United Nations Special Committee on Peacekeeping Operations, the United Nations Committee on Contributions, the United Nations Committee on the Peaceful Uses of Outer Space, the Advisory Committee on the United Nations Programme of Assistance in the Teaching, Study, Dissemination and Wider Appreciation of International Law, the United Nations Committee on Energy and Natural Resources, the United Nations Disarmament Commission, the United Nations Commission on Population and Development, the United Nations Commission on Narcotic Drugs, the Executive Board of the United Nations Development Programme/United Nations Population Fund, the Executive Board of the United Nations

Children's Fund (UNICEF), the Governing Body of the International Labour Organization, and the IAEA Board of Governors. The state directs its efforts to develop cooperation with international economic and environmental organizations, to engage their potentials to the benefit of Ukraine's social and economic interests, in order to accelerate the integration of our state in the global economy and to resolve acute environmental problems. The resolution of global development problems by economic means is illustrated by Ukraine's participation in projects designed to deal with the consequences of the Chornobyl disaster, the fight against AIDS and drug abuse.

At the supranational level, Ukrainian diplomats are trying to secure the full and effective participation of Ukraine in regional cooperation mechanisms, specifically in the CIS, the Central European Initiative (CEI), the Organization of the Black Sea Economic Cooperation (BSEC), GUAM, and the Council of the Baltic Sea States. Ukraine's participation in the work of the above-mentioned associations is intended to facilitate the development of multilateral cooperation with the member-states and to positively influence the advancement of the State of Ukraine towards market reforms. The Mission of Ukraine to the European Union coordinates bilateral relations between Ukraine and the European Union.

The intergovernmental level of commercial diplomacy operates through the economic departments of Ukraine's diplomatic missions and intergovernmental commissions on trade and economic cooperation. Presently, more than 70 intergovernmental commissions on trade and economic cooperation have been established and operate on the basis of the provisions of intergovernmental agreements on trade and economic (economic) cooperation or bilateral arrangements at a higher level. The majority of commissions were created in 1994—1996. The key function of intergovernmental commissions is to promote the development of bilateral cooperation with a partner-state, to analyse a relevant state of affairs and to identify the most prospective directions and options for improvement (the official website of the Cabinet of Ministers of Ukraine) On the basis of the results of the commissions' meetings, the parties have signed protocols according to which, Ukrainian sections of the commissions, develop plans of action to implement joint arrangements, which include specific deadlines and the responsible ministries and agencies of Ukraine. The practice illustrates that bilateral intergovernmental commissions for economic cooperation with European states are an effective mechanism for stimulating the development of bilateral trade and economic ties.

At the business level, commercial diplomacy tools operate through the Ukrainian Union of Industrialists and Entrepreneurs (UUIE), the

Chamber of Commerce and Industry, sector trade and manufacturers' associations.

It seems reasonable to illustrate the key forms and methods of commercial diplomacy in Ukraine with the following matrix (Figure 4.7)

Figure 4.7. The Matrix of Key Forms and Methods of Commercial Diplomacy

Source: T.M. Tsyhankova, O.O. Yevdochenko, 2006 : 160.

The forms and methods utilized by the government abroad belong to Group I. Group II includes those utilized both in Ukraine and abroad at the level of government and civic organisations. The forms and methods of commercial diplomacy presented in Group III are utilized in Ukraine and are typical of both government authorities and civic organisations. Group IV encompasses the forms and methods applied by civic organizations abroad; Group V — both abroad and in Ukraine.

4.5.3. Bilateral Trade and Economic Cooperation between Ukraine and Poland

Cooperation between the government and civic organisations on the international level, specifically on the Ukrainian-Polish level, plays a special role in the development of the system of commercial diplomacy in Ukraine. The strategic partnership existing between Ukraine and the

Republic of Poland is implemented through the entire spectrum of bilateral contacts — political, economic and humanitarian.

Recently, Poland and Ukraine established a number of bilateral cooperation institutes, including the Advisory Committee under the Presidents of Ukraine and Poland, the Joint Commission for Economic Cooperation, the Ukrainian-Polish Conference on European Integration, the Intergovernmental Coordination Council for Interregional Cooperation, the Annual Ukrainian-Polish Economic Forum of Entrepreneurs, the Civic Ukrainian-Polish Forum as well as the Inter-Parliamentary Assembly of Ukraine and the Republic of Poland. One should also mention such trilateral bodies as the Polish-American-Ukrainian Cooperation Initiative and the Inter-Parliamentary Assembly of the Verkhovna Rada of Ukraine, Seimas of the Republic of Lithuania, Sejm and Senate of the Republic of Poland. All of the above-mentioned bodies have stimulated relations between our states.

The contractual-legal framework for Polish-Ukrainian relations includes nearly 100 documents that have the status of international agreements and regulate practically the entire spectrum of bilateral cooperation. Bilateral arrangements between the entities of the administrative-territorial system of Poland and Ukraine (numbering more than 130) constitute an important component of the contractual-legal framework.

Presently, in the legal sphere, there is a need to enhance cooperation between contractual-legal departments of foreign policy agencies, for the purpose of developing an inventory of the contractual-legal framework between Ukraine and the Republic of Poland. Implementing such revision is extremely important in view of Poland's accession to the EU. Further extension of the contractual-legal framework with the Republic of Poland will specifically permit the utilization of developed models of the legal regulation of bilateral relations in cooperation with the other EU states.

Since Ukraine gained its independence, bilateral relations with Poland have remained the focus of the Advisory Committee under the Presidents of Ukraine and Poland (the Advisory Committee), which was founded in 1993. It is within the Advisory Committee's competence to determine strategic lines of political, economic, military and humanitarian cooperation and to resolve pending issues pertaining to bilateral relations. As a rule, the Advisory Committee convenes every six months.

Since it was founded, the Advisory Committee has reviewed a broad range of issues, such as: the stimulation of trade and economic cooperation; the justification for, and implementation of co-projects in the energy sector; prospects of Ukraine's cooperation with the EU and

NATO; the implementation of intergovernmental agreements; the development of cross-border cooperation; options for the improvement of existing cooperation formats in order to ensure that such formats correspond to the realities of the present and to increase the efficiency of the system of bilateral relations; the elaboration of co-tasks of foreign economic policy and cooperation; the implementation of the EURO-2012 Football Championship final; the enforcement of Energy Summit decisions, etc. Cooperation on the level of Prime Ministers also remains active.

The development of trade and economic cooperation between Ukraine and Poland is facilitated by the Commission for Trade and Economic Cooperation, established on the basis of the intergovernmental Agreement on Trade and Economic Cooperation (October 1991). Seven joint meetings were held before Poland became a member of the EU. The new intergovernmental Agreement on Economic Cooperation was signed on 4 March 2005 in Kyiv, during the visit of Poland's Prime Minister to Ukraine, which permitted the Polish-Ukrainian intergovernmental Commission for Economic Cooperation to resume its activities. Three working groups have been established for the Ukrainian-Polish cooperation in the fuel and energy sectors, coal industry and implementation of the Odesa—Brody—Plock pipeline construction project. The Commission resumed its activities in full in November 2007.

Ukraine and Poland prioritize cooperation in the following sectors, which are constantly the focus of attention of their governments and relevant working groups: energy (the implementation of the project associated with oil supply through the Odesa—Brody—Plock pipeline, the development of a gas transportation network, synchronisation of electric power networks, etc.); transportation (Pan-European Transport Corridor III; the introduction of new transit documents in the railway sector; the development of transportation infrastructure, specifically border-crossing points, etc.); communications (development management, capital investment, regional and cross-border cooperation in telecommunications and information systems); defence industry and military hardware (the implementation of research and development, as well as joint production projects).

The implementation of the final part of the EURO-2012 Football Championship is an important joint project of Ukraine and Poland. The Joint Coordination Council for the Preparation and Hosting of the EURO 2012 was created at the inter-state level; its members will be responsible for a number of key issues: safety, visa policies, and the development of customs border crossings and joint activities of customs offices. The

Council will also deal with the construction of roads and railway tracks, as well as a common information policy.

At the business level, the Ukrainian Union of Industrialists and Entrepreneurs and the Confederation of Polish Employers have established the Business Coalition for EURO-2012, which, in particular, will be implementing a project associated with the construction of a network of hotels along the Warsaw-Kyiv highway.

In the context of strategic partnership and the implementation of joint projects, such as the EURO-2012, we believe that the interaction of business associations of the countries needs to be more active. First and foremost, this pertains to regional chambers of commerce and industry, which should enter into long-term cooperation agreements with relevant economic chambers of Poland or Ukraine in order to support national companies entering the market of the neighboring state.

Taking into consideration the effectiveness of such form of commercial diplomacy as bilateral business meetings, Ukraine and Poland regularly arrange large-scale economic forums, which serve as a particular instrument for identifying problems pertaining to bilateral trade and economic cooperation as well as outlining options for their solution.

A very broad range of industries and sectors, from the energy sector to resort therapy, are generally referred to as high priorities of trade and economic cooperation between Poland and Ukraine. From the perspective of Ukraine's national economic interests and in view of a relevant interest demonstrated by Poland, the following spheres of bilateral cooperation should be prioritized: fuel and energy sectors, coal industry, transportation and communications, agro-industry, construction, small- and medium-sized entrepreneurship, banking and finance, cross-border cooperation.

For the purpose of facilitating the effective development of trade and economic cooperation between Ukraine and Poland in the future and enhancing the effectiveness of commercial diplomacy measures, we believe the following is required:

— Determining (by the parties), approving and legislatively setting forth a number of long-term cooperation priorities; elaborating relevant joint projects;

— Ensuring operational continuity, constructiveness and efficiency of the players of national commercial diplomacy and bilateral institutes of Ukrainian-Polish cooperation;

— Developing reciprocal cooperation mechanisms on the supranational and global levels, first and foremost, on the level of the European Union and the World Trade Organization.

4.6. Financial Mechanisms and Instruments

4.6.1. Introduction

Discussions about the convergence of the economies of Poland and Ukraine prioritize an analysis of development tendencies in the banking system of Ukraine in the context of the processes in the banking system of the European Union. In this relation, one can ascertain that changes in the banking system of a country transforming towards a market economy should be viewed in the context of integration processes in the legal and institutional dimensions, as well as in terms of the efficiency and stability of banking institutions and financial instruments, since the phenomenon of financial convergence is associated with the integration and incorporation of national banking systems on the international level, as well as the implementation of legislative measures, designed to eliminate barriers to the transfer of capital, eliminate risks and enhance investors' confidence in the financial instruments available on the market.

The prospect of EU integration dominates in reflections about the form of Ukraine's financial system, specifically since relations between the European Union and Ukraine were entrenched in the above-mentioned Partnership and Cooperation Agreement between the European Communities and their Member States and Ukraine (PCA). The PCA establishes the basis for EU—Ukraine relations in the sphere of political dialogue, trade, investment and legislative cooperation[10]. Within the framework of the PCA, the EU and Ukraine endorsed the principle of the most favored nation treatment (MFN), which establishes a limit of restrictions on the import and export of commodities. Provisions of the PCA emphasise the importance of adjusting Ukrainian legislation to European standards. Harmonization in this sphere is intended to promote the creation of economic, investment and trading relations between Ukraine and EU Member States. In relation to the above, Ukraine has adopted relevant legislative acts[11] that determined the EU integration strategy of the country. However, we have to admit that in view of the slow pace of economic, public and political reforms, the implementation of legislative preconditions for integration has not significantly affected progress in this sphere so far (Bezrukowa I., 2005 : 188).

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[10] Partnership and Cooperation Agreement (PCA) dated 10 November 1994. The Agreement took effect in March 1998.

[11] The European Union Integration Strategy of 11 June 1998 has been approved by the Presidential Decree «On the Approval of the Programme of Ukraine's Integration into the EU» of 14 September 2000 and the Law of Ukraine «On the Concept of the National Programme for the Adaptation of Ukraine's Legislation to that of the European Union» of 21 November 2002.

One should mention that the consolidation and stabilisation of the banking system of Ukraine and adaptation to EU practices pertaining to financial mechanisms and instruments are presently regarded as a precondition for accomplishing Ukraine's strategic task –association with the EU. In this context, it is important to research the development tendencies of the banking systems of Central-Eastern European countries, particularly their experience in the adaptation of banking systems to EU standards. The results of the banking system reform implemented in Poland can be informative to Ukraine, since Poland is a member of the EU and has gone through the process of adjusting its banking regulatory policy to operating in a uniform financial market, as well as since the banking system model utilized in Ukraine is similar to that of Poland, in terms of the dominating role that banks play on the financial market. Presently, due to a low development level of the other segments, specifically such as the debt securities market or stock market, commercial banks play a leading role in the distribution of capital in Ukraine's financial system. However, this level is not sufficient for the needs of the economy.

An analysis of the current development level of Ukraine's banking system demonstrates that, irrespective of the dominant role of banks on the financial market and considerable qualitative changes in the institutional structure, forms of regulation and competition level, the system still faces challenges in the context of transformation and Ukraine's aspirations for EU membership. Such challenges include the need to introduce stable legislative regulation, similar to EU standards, further strengthen the independence of the central bank, reorganise banking supervision and apply the recommendations of the Basel Committee on Banking Supervision and EU Council Directives, increase the capital of Ukrainian banks and consolidate the disintegrated sector, as well as improve the quality of bank assets.

4.6.2 Overview of the Development Model and Phases of the Banking System in Poland and Ukraine

The development principle of Ukraine's banking system is defined by the World Bank as the *new entry model*. The model envisages the liberalization of requirements for the creation of new banks concurrently with the privatization or liquidation of state banks.

Poland utilized the rehabilitation model, which envisages reforming the banking system by restructuring existing state banking institutions and intensifying their development, as well as applying a more restrictive licensing policy and privatizing state banks in the long-term (Świderski E., 2002 : 65). In practice, the introduction of the

rehabilitation model involved the creation of a new legislative framework, which introduced the operational principles of Poland's banking system. The transformation of the banking system began in 1989 with the adoption of the «Banking Law» and the Law «On the National Bank of Poland»[12], as well as the dissociation of nine independent depository and crediting banks from the National Bank of Poland. Thus, the created banking system model was based upon the principle of universal banking activities.

This was the beginning of the process of the banking sector's transformation towards a market economy model in Poland; it was of primary importance to define explicitly the functions of the central bank and to form a sector of competing commercial banks. In the next stage, in the early 1990s, the NBP's liberal licensing policy affected the growth of the number of banking institutions. This period saw the emergence of numerous new banks, quite often with insufficient capital. In terms of ownership, state banks, banks — shareholdings and cooperative banks existed and operated in Poland. All the above-mentioned groups had to tackle the issue of high-risk credits and insufficient capital (Pietrzak J., 2002 : 52—53).

In the next phase of transformation, bank privatization was of key importance. As a result of the implementation of relevant measures, which constituted a one-time or gradual receipt of control over a bank, the share of state and foreign capital in Poland's banking assets in 2000 amounted to 23.6 % and 72.7 % respectively[13]. In relation to the above, it is possible to state that the acquisition (takeover) of Polish banking institutions primarily involved the participation of foreign investors in the privatization. The inflow of foreign banking capital through the takeover generated numerous disputes, since opinions about the utility of this phenomenon and associated threats at that time differed significantly[14].

In 1989, two new laws were adopted — «Banking Law» and «On the National Bank of Poland»[15]. The introduced changes adjusted the Polish

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[12] The «Banking Law» of 31 January 1989, the Law «On the National Bank of Poland» of 31 January 1989.

[13] The indicated value was composed of the following: (a) subsidiaries (branch offices of foreign banks) — 10.1 %, (b) banks with a foreign strategic investor holding a majority interest — 49.8 %, (c) banks with a smaller share of foreign capital (investors holding 30—50 %) — 12.8 %, (d) without foreign investment — 2.1 %, (e) controlled by the state and associated with the cooperative sector — 1.6 %. Publication data: Jabłoński P., 2000; Grzegorczyk W., 2001.

[14] See: Bloch Z., 1998, page 78; Kostrzewa W., 1997, page 48; Rozmowa E. Balcerowicz, 1996; Jurkowska A., 1998; Dobosiewicz Z., 1995; Romiszewska I., 1999, page 43; Konopielko Ł., 2000, page 65.

[15] The «Banking Law» of 29 August 1997, the Law «On the National Bank of Poland» of 29 August 1997.

banking system to European standards, completed the process of the transformation of the Polish banking system and laid the foundation for a new stage of the system's development. The principal provisions related to the establishment and licensing of banks, the minimum level of equity capital, the maintenance of bank accounts and credit arrangements. The laws also defined the tasks of the NBP, created the Monetary Policy Council responsible for the implementation of an independent monetary policy, the Commission for Banking Supervision and the General Inspectorate for Banking Supervision. Official sources and expert publications assessed the above-mentioned laws as such that ensured adaptation to EU norms (Szczepańska O., Sotomska-Krzysztofik P. and others, 2004 : 79).

Since the end of the 1990s, Poland's banking sector has been in the process of consolidation, which has resulted in the improvement of the economic status of the banks and the updating of their proposals. One anticipates that the consolidation process will continue and fewer institutions will possess more capital in the future.

Based upon an analysis of the development phases of the banking system in Poland, it is possible to conclude that for a number of years Poland was in a transition from a mono-banking system to a ramified free-market banking system. The legislation regulating the operation of the banking system was created concurrently with the implementation of national economy reforms and the performance of Poland's international commitments pertaining to the OECD and the European Community. The dominant role of foreign capital on the Polish market resulted in intensified competition pertaining to the creation of new banking products, information technologies and innovative distribution channels.

Ukraine's banking system has been developing since 1991. In 1991, Parliament adopted the Law of Ukraine «On Banks and Banking Activities», which became the foundation for the creation of a two-tier independent banking system[16]. The Law covered the activities of the central bank and commercial banks. The newly created system in Ukraine included the National Bank of Ukraine (NBU) and commercial banks that could carry out their activities on a universal and specialized basis. Five industry-specific state banks played a key role in the composition of the system existing at that time[17].

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[16] The Law «On Banks and Banking Activities» of March 1991.

[17] Ukreximbank — banking services rendered to the Government and associated with export and import transactions; Oschadbank — banking services associated with individual savings and utilities payments; Agroprombank (later Ukraine) — concentrated on banking services in the agricultural sectors; Ukrsotsbank — crediting services in the social and local spheres; Prominvestbank — financing of strategic investment and sectors.

The development of Ukraine's banking system may be conditionally divided into the following phases:

- 1991—1993 — extensive development;
- 1994—1995 — a crisis, the liquidation of banks and the introduction of regulation designed to stabilize the situation in the banking sector;
- From 1996 to mid-1998 — stabilisation and improvement of the state of affairs in the banking system;
- From mid-1998 to mid-2001 — modernization of the banking system;
- From mid-2001 to 2003 — entry of foreign banks into the system;
- 2004—2006 — acquisition of Ukrainian banks by foreign banks.

At the first stage of the transformation, the regulation was focused at eliminating the dependence of the Ukrainian banking system upon the Russian one (Kloc K., 2001 : 6). This was done by transforming the National Bank of the Republic — a branch office of the central bank of the Soviet Union into an independent bank of Ukraine. Also, all existing banks were newly registered; the registered banks were provided with new licenses for carrying out banking activities. In this period, Ukraine introduced its own payment unit — Ukrainian Karbovanets (10 January 1992) and created the NBU currency market, where banks could purchase or sell currency. In 1992, Ukraine started collaborating with the European Bank for Reconstruction and Development.

A number of factors affected the development of the banking system in this period; such factors included unfavorable economic conditions, a lack of stabilizing reforms and the policy of the central bank pertaining to the issuance of permits to open new banks. Furthermore, the central bank did not implement an active anti-inflation policy, which would have limited the inflow of credits. Government spending was financed with another emission of currency. The dependence of the central bank's policy on Parliament did not facilitate the implementation of the monetary policy, stabilisation of the situation in the banking system or the implementation of the structural reforms of the Ukrainian economy (Kloc K., 2001 : 13).

Large state banks, being the core of the system, were in financial trouble. This presented a threat to the stability of the entire banking system. In 1992—1993, within the framework of the central bank's liberal licensing policy, new banks were established[18], which were characterized by a low level of authorized capital and the small size of said banks, thus contributing to reference to some of them as «pocket bank». The overall number of banks increased from 73 in 1991 to 230 in

[18] In the early 1990s, the minimum capital requirement amounted to 5 million roubles, while at the end of 1992 — 500 million Karbovanets.

1995. Amidst hyperinflation, the banks engaged in credit expansion, specifically by extending short-term loans, incorporating a high-risk level. Thus, the systemic risk and the probability of financial destabilisation increased.

The situation in Ukraine's banking system in 1994—1995 was a consistent result of the previously implemented policy, i.e. in the context of low capital accessibility requirements, high inflation and the NBU's liberal licensing policy. The first bankruptcies of banks were registered during this period, which resulted in the liquidation of eleven banks in 1994 and one bank in 1995. The banks' equity capital remained low. Only some of them possessed equity capital that exceeded the minimum capital requirements established for EU Member States (ECU 5 million): two banks in 1994 and seven in 1995. However, the equity capital of the overwhelming majority of banks was less than ECU 1 million. Therefore, the NBU introduced requirements to bank liquidity, financial solvency and minimum equity capital (Kloc K., 2001 : 17—19). The NBU also introduced an electronic system of payments, which permitted the acceleration of the settlement of payments between entities. In this period, the NBU focused on fighting hyperinflation by pursuing a restrictive monetary policy, which was designed to restrict the emission of money and to reduce the inflow of credits.

In the next phase, as the relative stability of the financial system had been achieved, a second monetary reform was implemented. On 16 September 1996, a new currency was introduced into circulation; the *hryvnia* replaced the *kupon* in the ration of 1 hryvnia to 100,000 kupons (Świderski E., 2002 : 70). Concurrently, the NBU continued the policy of curbing inflation. Commercial banks had already adjusted to operating in the market environment, which was illustrated by the growing profits and acquired skills associated with an effective distribution of resources. In 1996, profits increased twofold as compared to those of the preceding year. International accounting standards were introduced in this period, which permitted the assessment of the real banking situation and to externally audit the banks. However, the financial crisis in Russia of 1998 caused a collapse of the banking system in Ukraine and the devaluation of the hryvnia against the dollar. The bankruptcies of bank under these conditions destabilized the situation in the financial sector of the state.

In the next development stage, measures were taken to stabilize and modernize the banking system. In relation to the above, in 1999, Parliament adopted individual laws regulating the activities of the central bank and other commercial banks: the Law of Ukraine «On the National Bank of Ukraine», dated 20 May 1999 and the Law of Ukraine «On Banks and Banking Activities», dated 07 December 2000. The Law on

the NBU authorised the central bank, through relevant instruments, to implement the reorganization of banks that have liquidity problems (including, the annulment of licenses and the liquidation of banks). In addition to the above, the Law defined the types of specialised banks (savings, mortgage and clearing banks) and permitted the establishment of cooperative banks and the setting up of financial holdings.

The next period saw the development of the banking system, with the main impulses coming from foreign banks. The presence of foreign banks led to the expansion of the sphere of banking services, specifically such as retail services, securities portfolio management and financial consulting.

In the same period, the Program for the Development of Ukraine's Banking System for 2003—2005, which was elaborated by the NBU, identified major weaknesses of the banking system and possibilities to tackle such weaknesses. The Programme emphasised the systematic improvement of the operational environment of the banking system concurrently with the identification of strategic problems impeding further development. Generally, the latter could include insufficient bank capital, lack of effective and adequate methods of banking risk management in many banks, low quality of bank assets, high costs generated by banks, as well as insufficiently effective banking supervision, which primarily relates to issues of identifying and assessing banking risks (Veremiyenko Y., 2006 : 116).

Within the framework of institutional provision for the banking system, the Deposit Guarantee Fund (DGF) was created, the objective of which is to secure the deposits of private individuals in banks and to guarantee the reimbursement of deposited funds in the event of bankruptcy. However, at this stage, the approach that was applied, failed to ensure the relevant protection of the deposits of private individuals in view of a low level of provision in correlation to the amount deposited. This approach was essentially different from the practice of EU Member States.

4.6.3. Functions of Central Institutions of the Banking System and Mechanisms of Ukraine's Monetary Policy

The National Bank of Ukraine performs the functions of a central bank in the national economy. The objective of the activities and functions of the NBU are outlined in the Constitution of Ukraine and the Law of Ukraine «On the National Bank of Ukraine»[19]. The Law is a separate legislative act regulating the scope of activities of the Ukrainian central bank. Polish legislation dedicated a separate legislative act to the issues associated

[19] The Law «On the National Bank of Ukraine» adopted on 20 May 1999, as amended.

with the operation of the central bank — the Law «On the National Bank of Poland» (NBP)[20], regulating the scope of activities of the central bank and the implementation of a monetary policy in Poland's economy.

The Constitution of Ukraine defines the central bank as an institution responsible for maintaining the stability of the national currency and taking measures to secure financial stability. The NBU performs the task by curbing inflation. As part of the efforts to perform the task, the NBU also supports the economic policy of the Government and macroeconomic stability and bears responsibility for creating conditions for economic growth and full employment, unless this impedes the maintenance of price stability.

The central bank implements a monetary policy strategy by exercising control over the currency rate. The board of the bank justifies the application of such strategy by citing the underdeveloped mechanism for the transmission of the impulses of monetary policy and poorly anticipated dynamics of demand for money. Furthermore, it seems that maintaining a stable currency exchange rate is reasonable in the short term, since such rate has a dominant impact on the inflation rate. For comparison: the NBP utilizes the strategy of direct inflation targeting in its monetary policy (DIT). It is intended to achieve the goal, which is a relevant inflation rate. Its effectiveness requires stable relations between various economic and financial variables, on one side, and the future inflation rate, on the other. In 2004, implementing the strategy of direct inflation targeting in the monetary policy, the Monetary Policy Council set a constant inflation target at a rate of 2.5 % with a symmetric fluctuation range of plus-minus 1 percent. The Monetary Policy Council performs the task in the context of a floating currency rate, which needs to be maintained until Poland's membership in the ERM—II. The floating currency rate system does not exclude intervention on the currency market, if this is required for hitting the inflation target.

Similar to the functions of Poland's central bank, the functions of the NBU reflect the bank's importance and the role it plays in Ukraine's economic system. The NBU is an issuing bank, a lender of last resort, a bank of the State, a banking regulation and control body, as well as a monetary and currency regulation body. The main bodies of the Ukrainian central bank are the Council and the Board of the NBU.

The NBU performs its functions independently from government authorities and does not bear responsibility for the government's commitments. In practice, the NBU and the Government cooperate to elaborate an economic policy. Pursuant to the Law on the NBU, the

[20] The Law «On the National Bank of Poland» of 29 August 1997 (Dz.U nr 140, poz. 938 ze zm.).

central bank cannot extend direct credits to finance state budget expenditures. The provisions of Ukraine's legislation in this sphere correspond to a key requirement of the normative and legal convergence of candidate countries for EU membership. The distribution of profits of the central bank is an important sphere of the cooperation of the NBU and the Government. The parties utilize the principle corresponding to the international practice of central banks. On its basis, the NBU allocates an established percent of the balance-sheet profit to the state budget.

An analysis of the NBU's functions and powers demonstrates that the tasks of the NBU associated with assuring financial stability include the re-financing of banks, the regulation of banks' liquidity and the organization of the settlement system. The Law on the NBU also establishes that the central bank must promote the maintenance of financial stability by sustaining the stability of prices.

The NBU's monetary policy instruments include the following:

- Provision requirements;
- Interest rate (discount, deposit);
- Refinancing of banks, deposit certificates of the NBU;
- Open market transactions; and
- Currency interventions.

The NBU's provision requirements are distinguished by the type of deposit. The provision requirement for demand deposits amounts to 8 %, while for term deposits it constitutes 7 %. The provisions are held in the national currency on the NBU's account. Since 2004, banks have been obliged to maintain a daily balance on a provision account in the amount of 70 % of the average monthly provision amount.

The discount rate plays the role of the basic rate for the monetary market players and determines the minimum value of money. It is the lowest rate of the NBU. The deposit interest rate belongs to transactions associated with the placement of funds in the NBU by commercial banks for a period of 2—7 days, 8—21 days, 2—30 days. In 2006, as part of the efforts to mitigate its monetary policy, the NBU reduced the discount rate from 9.5 % to 8.5 %. This impulse facilitated a reduction in the cost of money and a growth of crediting.

The NBU proposes refinancing transactions to commercial banks with the help of overnight credits and refinancing credits with a maturity period not exceeding 365 days. The interest rates for such transactions are determined daily, depend on liquidity on the market and cannot be lower than the NBU discount rate.

Setting a direct inflation target, the NBU sustains interest rates at such a level that assures the hitting of the target and thus affects nominal short-term interest rates on the currency market. The currency market rates

have an impact on the credit and deposit interest rates of commercial banks and, consequently, the total number of credits, economic demand and the inflation rate. The NBU forms market interest rates with the help of monetary policy instruments. The NBU's instruments include transactions on the open market, provision requirements as well as depositary and crediting transactions.

In Polish legislation, the sphere of banking supervision is regulated by the Law «On the Supervision of the Financial Market» dated 21 July 2006 and the Law «On Banking Law» dated 29 August 1997. The Financial Supervision Commission supervises the financial market, while the Banking Supervision Commission supervises the banks until the end of 2007. Just like other EU Member States, Poland has utilized the consolidated supervision model, which envisages that one institution exercises supervision over all segments of the financial market. It should be noted, that EU legislation does not regulate problems associated with the application of the models and organisational forms of supervisory institutions. It concentrates on regulative methods that allow supervision to have an impact on subordinate entities. Therefore, in practice, EU Member States utilize various schemes of institutional supervision forms (Współczesna…, 2007 : 59).

Supervision arrangements existing in Polish legislation are the result of the introduction of the New Basel Capital Accord standards adopted by the Capital Requirements Directive (CRD)[21] in European legislation. The provisions of the New Basel Capital Accord regulate the issues of the elimination of banking risks (the payment capacity ratio, the principles of capital requirements), as well as requirements to supervision and market discipline.

In Ukraine, the central bank performs the function of banking supervision[22]. It should be emphasised that in Poland banking supervision was performed by the Banking Supervision Department, which was part of the NBP until the end of 1997. It could be said that in the initial stages of the transformation of Poland's banking system, institutional arrangements in bank supervision were similar to those in Ukraine.

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[21] The main directives regulating the scope of activities of banks and supervision issues are: Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions and Directive 2006/49/EC of the European Parliament and of the Council of 14 June 2006 on the capital adequacy of investment firms and credit institutions; referred to as the CRD — the *Capital Requirements Directive*.

[22] The Banking Supervision Department was created in 1991. Initially, the activities of the Department were limited to the resolution of disputes between banks and clients and the development of a system of commercial banks reporting to the NBU. In 1995—1996, a system of banking criteria and requirements was introduced (for instance, Instruction No. 10) and measures were taken to improve licensing requirements.

However, as a result of the implementation of measures designed to adjust Polish legislation to EU requirements, according to the Law of 29 August 1997, the supervisory functions were delegated to an autonomous body — the Banking Supervision Commission, which, specifically, is responsible for issuing licenses for the creation of banks, establishing banking operational principles, performing oversight over bank compliance with legislation and requirements, making periodic assessments of banks' financial status for further submission to the Monetary Policy and assessing the impact of monetary and tax policies on bank development. As has been mentioned earlier, the process of incorporating banking supervision institutions into the Financial Supervision Commission is presently ongoing. The process is a manifestation of harmonization and the introduction of European supervision standards, as well as the application of uniform bank requirements in the integrated financial market.

Within the NBU's structure, there is a supervisory and regulatory body — the Directorate for Bank Regulation and Supervision, which consists of five departments (the Methodology Department, the Bank Registration and Licensing Department, the Regulation and Supervision Department, the Bank Liquidation Department and the Department for the Prevention of the Use of the Banking System for the Purpose of Legalising Criminal Proceeds and Financing Terrorism) (The 2006 Annual…, 2007). Local offices of the NBU also perform the supervisory function. The Commission for the Supervision and Regulation of Banking Activities has been established by the NBU for the purpose of coordinating activities associated with bank registration and licensing, as well as supervision in key spheres of banking activities.

Banking supervision activities are regulated by the Law of Ukraine «On the National Bank of Ukraine» and the Law of Ukraine «On Banks and Banking Activities»[23]. Pursuant to their provisions, the main objective of banking supervision in Ukraine is the financial safety and stability of the banking system, as well as protection of the interests of depositors and creditors. In relation to the above, the NBU performs the ongoing supervision of banks' compliance with the provisions of relevant legislation, NBU regulations and banking requirements, which permits risk control. The latter specifically include capital requirements (EUR 10 million — the minimal authorized capital amount), paying capacity ratio, and capital concentration limits. Furthermore, the NBU determines an operational strategy and the development of a methodology and drafts normative acts for bank supervision. The NBU also exercises systematic

[23] The Law on the NBU of 20 May 1999 as amended, the Law «On Banks and Banking Activities» of 7 December 2000 as amended.

control and supervision of the functioning of banks, from registration and licensing, monitoring bank effectiveness and stability, to bank liquidation. The procedures utilized in Ukrainian banking supervision practice are designed to prevent risks associated with banking activities and to sustain the stability of the entire banking system.

An analysis of Ukrainian banking supervision in the 1990s does not permit one to render positive conclusions. The creation of legal norms associated with central bank activities, the supervision of commercial banks and legal norms for commercial banks was a relatively long process. Banking supervision was developed, and banking normative requirements were introduced with considerable delays. One should also critically assess the processes of analyzing supervision and obtaining information about the status of various banks. Reports submitted by commercial banks at that time did not reflect the actual situation in the banks (Kloc K., 2001 : 38).

We should emphasise that presently there is an ongoing process of adjusting and creating opportunities for the development and introduction of new standards of banking supervision. This is facilitated by cooperation with the International Monetary Fund and the World Bank. In relation to the above, in 2005, the NBU took a number of measures intended to improve the regulation and environment of banking activities, as well as banking supervision.

General standards of deposit-guarantee schemes have been introduced by the International Monetary Fund, European Directives[24] and national legislation. In Poland, the legal framework of deposit-guarantee schemes was established by the Law «On the Banking Guarantee Fund» dated 14 December 1994, which was later amended. The key tasks of the Banking Guarantee Fund are to guarantee deposits and to assure bank stability, bank safety, and greater confidence in the banking system. The Polish system of deposit guarantees incorporates the elements of an obligatory guarantee system and a back-up system, which implies that it belongs to the risk minimiser category[25].

Participation in the Polish deposit-guarantee system is mandatory for all banks registered in Poland. Protection covers the nominal deposits of residents and non-residents, including interest in the Zloty and other currencies, which belong to private individuals and legal entities, as well as institutions with a legal capacity. Guarantees do not apply to commitments of the bank with regard to the State Treasury and other financial

[24] Directive 94/19/EC of the European Parliament and of the Council of 30 May 1994 on deposit-guarantee schemes.

[25] For more information on deposit-guarantee schemes see: Pawlikowski A., 2004.

institutions, as well as to the deposits of the bank's management and key shareholders. The guarantees cover the following amounts of deposits:

- The guaranteed amount will be covered in full (100 %), if the deposited amount does not exceed EUR 1,000 in the Zloty equivalent;
- If the deposited amount exceeds EUR 1,000 in the Zloty equivalent, EUR 1,000 will be reimbursed in full (100 %), while the remainder will be reimbursed as per the principle of joint assecuration (co-responsibility of the depositor) at a rate of 90 % up to the amount of EUR 22,500[26].

The deposit guarantee body in Ukraine was created in 2001 on the basis of the Law of Ukraine «On the Deposit Guarantee Fund» of 20 September 2001[27]. The principal task of the Fund is to secure deposits placed by individual depositors in banks and, in the event of bankruptcy, to reimburse deposited funds. By reimbursing funds deposited with commercial banks, the Fund protects the rights of individuals (depositors) and, thus, promotes stability of the Ukrainian banking system.[28]

The Fund is an independent non-profit state institution operating in the sphere of deposit-guarantee schemes. The key bodies of the Fund are the Administrative Council and Executive Directorate. The Fund is co-managed (by the state and the private sector), which in practice means that the Fund is administered by both representatives of state authorities (the Cabinet of Ministers of Ukraine and the NBU) and the private sector (representatives of the Association of Ukrainian Banks) (Veremiyenko Y., 2006 : 118). The Administrative Council is specifically responsible for coordinating the activities of the Fund, approving the procedure for the payment of funds deposited by individuals, approving the normative acts of the Fund, supervising the activities of the Executive Directorate and adopting decisions approved by the NBU on the establishment of a duty for member-banks. The Executive Directorate resolves issues on the reimbursement of funds to the depositors in the event of the non-availability of such funds, develops and submits draft normative and legal acts to the Council for approval, establishes reporting forms for member-banks as approved by the central bank and analyses information on the financial status of the Fund's member-banks (Veremiyenko Y., 2006 : 119).

The member-banks of the Fund are the banks holding a license for pursuing banking activities and registered in the state register of banks maintained by the NBU. Participation in the deposit-guarantee schemes for such banking institutions is mandatory and subject to payment. For

[26] For more information on the BFG activities please go to the website www.bfg.pl.
[27] The Law «On the Deposit Guarantee Fund» of 20 September 2001.
[28] Information on the Deposit Guarantee Fund is available on the website www.fg.org.ua.

information purposes, every six month, the Fund announces the list of member-banks in the state mass media. Member-banks are obliged to place information pertaining to the deposit-guarantee schemes, the types of guaranteed deposits, the guaranteed amount and the procedure and mode of the reimbursement of guaranteed funds on their premises.

Pursuant to applicable legislation, the Fund guarantees the repayment of deposited funds to every depositor, including accrued interest as of the day on which the funds are no longer available, which presently shall not exceed UAH 8,000 (the amount has since been significantly increased). Nonetheless, joint assecuration does not exist in Ukrainian deposit-guarantee schemes, since only individual deposits are covered by deposit-guarantee schemes. The Fund guarantees deposits in all currencies; however, the deposited funds will be repaid in the national currency. The Law establishes the repayment procedure and the list of entities entitled to the repayment, as well as those that are not. Also, the Law defines the list of funding sources of the Fund. In general, the key source of financing is initial and regular bank dues. Such funding method for a deposit-guarantee institution is called *ex ante*, since funds are accrued «before the event», according to the procedure established by the law on the Fund.

Taking the scope of authorities that the Ukrainian guarantee fund may exercise into consideration, we can call it a *pay box* institution. The Fund repays deposits; however, at the same time it does not take any preventive measures or sanctions in the banking system.

4.6.4. Overview of the Commercial Bank Sector of Ukraine

The commercial bank sector of Ukraine is characterized by the existence of a great number of banking institutions. For instance, in the 1990s, the number of banks registered by the NBU amounted to over 200 (Table 4.16). This was a product of the liberal licensing policy of the NBU in 1991—1995. In the second half of the 1990s, more severe measures were taken. Specifically, the measures related to minimum authorized capital requirements, financial documentation required in the process of bank creation and qualifications of candidates for bank positions.

Later, the number of banks in Ukraine diminished. In 2001—2006, the number of banks holding a license issued by the NBU and pursuing operational activities amounted to 150. For comparison: 69 and 54 banks were pursuing their banking activities in the Polish banking sector in 2001 and 2005, respectively.

Presently, the Ukrainian banking sector remains significantly disintegrated. The largest share in the market of banking services belongs to Privatbank (about 15 %) and Aval (about 8.1 %). The shares of other

banks in total assets remain relatively low. As per NBU classification, at year-end 2005, commercial banks in Ukraine were divided into four groups. The first group included the 12 largest banks the assets of which were at the level of about UAH 3.9 billion (about USD 780 million). The next group included 15 banks with assets within the range of UAH 1.8—3.9 billion (USD 360—780 million). The third group encompassed 29 banks with assets within the range of UAH 0.5—1.8 billion (USD 120—240 million). The fourth group included the banks (close to 80) with assets at a level of UAH 0.3 billion (USD 60 million).

Table 4.16

TOTAL NO. OF BANKS REGISTERED BY THE NBU AND PURSUING OPERATIONAL ACTIVITIES IN 1994—2006

Year	Total No. of banks registered by the NBU	Total no. of banks holding an NBU license for carrying out banking transactions *
1991	228	220
1995	230	210
1996	229	188
1997	227	189
1998	213	178
1999	205	168
2000	195	153
2001	195	153
2002	189	152
2003	182	157
2004	179	158
2005	186	160
2006	186	165

* In Ukraine, banks are subject to registration by the Licensing Department of the NBU. They remain on the register until completion of the bank liquidation process or the announcement of their bankruptcy. Therefore, the number of banks carrying out operational activities is lower than the number of banks included in the register.

Source: Developed by the author on the basis of NBU information.

The majority of banks included in the final group do not pursue a wide range of banking activities. These are so-called *pocket banks* operating in the political and business environment. The activities of such banks are restricted to providing services to several or several dozens of enterprises of a given business-group. They constantly face the problem

of insufficient capital and, therefore, seek to raise capital from the outside, most often on the inter-bank market.

With a relatively large number of banks, the Ukrainian banking sector remains undercapitalized. According to NBU data, at the end of 2005, the indicator reflecting the ratio of the equity capital of the banking sector to GDP amounted to approximately 5 % in Ukraine, 6 % in Russia, 7 % in the Czech Republic, and 8 % in Poland and Hungary; while in the Eurozone states, the indicator equalled 120 %. Pursuant to the Law of Ukraine «On Banks and Banking Activities» of 2001, for the purpose of bank reorganisation, in view of a threat to paying capacity, capital requirements were adopted in Ukraine. According to the capital requirements, until 2007, commercial banks operating throughout the territory of Ukraine, banks operating within the territory of one oblast and cooperative banks were obliged to have minimum capital in the amount of EUR 8 million, EUR 5 million, and EUR 1.5 million, respectively.

In 2005, the authorized capital of Ukrainian banks amounted to about UAH 25.5 billion, which was an approximate equivalent of EUR 4 billion, while in Poland the indicator amounted to over EUR 250 billion. We have to emphasise that in Ukraine's banking sector this value may be lower by approximately 10—15 per cent, since the banks in Ukraine include, for instance, provisions associated with the creditor's default on payments or damages associated with currency transactions into their equity capital. Such practice is not in line with equity capital requirements introduced by the Basel Committee on Banking Supervision. The operational principles of the NBU and its supervision require further adjustment in order to meet European standards.

Since 2000, the Ukrainian banking sector has seen a considerable growth of assets, which amounted to about USD 67 billion in 2006. However, the indicator reflecting the ratio of banking sector assets to GDP, as compared to that of the other counties of Central-Eastern Europe, remained relatively low — 64 %. For comparison: in Hungary, the Czech Republic, Croatia and Slovakia the indicator fluctuated between 74—101 %, while an average indicator for the developed counties of the EU amounted to 224 % in 2005.

Comparing the banking sectors of Poland and Ukraine on the basis of the share of banks with the essential participation of state or private capital, it can be concluded that in 2005, two state banks operated in Ukraine and 23 out of 184 private banks were controlled by foreign investors (Table 4.17). Therefore, the share of foreign capital in the total equity capital of Ukrainian banks at that time amounted to about 14 per cent. In the banking sector of Poland, the share of foreign banks in gross capital amounted to approximately 75 % and was one of the largest in Europe.

Table 4.17

TOTAL NO. OF BANKS IN POLAND AND UKRAINE IN 2005 AND SHARE OF THE IDENTIFIED GROUPS IN THE BANKING SECTOR

Division	Poland	Ukraine
Commercial banks, including:	54	186*
With the significant participation of state capital:	11	
— directly owned by the state;	4	2
— indirectly owned by the state	7	—
With the significant participation of private capital, Including:	50	184
— controlled by national investors;	7	152
— controlled by foreign investors	43	23
The share of the equity capital of banks controlled by foreign investors in the commercial banks sector, %	74.6 %	14 %

* Banks as per the NBU state register.

Source: Developed by the author on the basis of *Sytuacja finansowa…,* 2006; *Annual Report 2005…*

Intensification of the inflow of foreign capital to Poland's banking sector began after 1995, as the share of foreign capital in the authorized capital of commercial banks amounted to 4 %. In the following years, the figure systematically increased and in the year 2000, the authorized capital of foreign financial institutions amounted to more than 55 % of the authorized capital of Poland's commercial banks. An analysis of the largest foreign investors in the Polish banking sector implies that the majority of investors began their activities with the opening of institutions with 100 % foreign capital in Poland. These were either subsidiaries or new banks (for instance, ING Group NV, Citigroup, Deutsche Bank AG). Since the second half of the 1990s, foreign banks have been participating in the privatization of Polish state banks (for instance, the acquisition of shares of Banku Przemysłowo—Handlowego by Bayerische Hypo — und Vereinsbank, Wielkopolskiego Banku Kredytowego by Allied Irisch Bank Plc, Banku Śląskiego by ING Group NV) (Godula E., 2001 : 85).

In 2005, investors from 18 countries were participants in Poland's banking sector. Banks with the significant participation of Italian capital had the largest market share. In 2005, as a result of the acquisition of the shares of Bayerische Hypo — und Vereinsbank AG by UniCredit, the Italian share in the Polish market grew by 9.9 %, while the share of banks with significant participation of German capital shrank by 10.2 %. The ranking then included banks with participation of Dutch (8.2 % of assets), Irish (4.8 % of assets) and Belgian capital (4.7 % of assets).

The active efforts of foreign financial institutions in Poland's banking sector consolidated bank capital and promoted the introduction of modern technologies and management methods, as well as the modernization and diversification of banking services. Instead, in Ukraine, the access of foreign capital to the banking sector almost until the end of the 1990s was restricted and, consequently, competition from foreign banks was limited[29]. In relation to the above, in 2000, the activities of foreign financial institutions in Ukraine declined, which was an unfavourable phenomenon for Ukraine. Rabobank from Holland withdrew from the Ukrainian market and Societe Generale closed its subsidiary and reduced its activities to representation in 2001 (Kloc K., 2001 : 37).

Presently, there is a gradual liberalization of foreign capital access, the presence of which impacts the growth of foreign investment in the Ukrainian economy to a certain extent and creates opportunities associated with the receipt of cheap credit funds for Ukrainian debtors. Another benefit arising from the activeness of foreign banks in Ukraine is the introduction of high electronic and information technologies, which permit the enhancement of the level of client servicing and the development of a broader range of banking products, and the gradual adjustment of operational principles of the banking system to international standards (Bezrukowa I., 2005 : 194—195). Please see Table 4.18 below for the participation of foreign financial institutions in the acquisition of banks in the banking sector of Ukraine.

The first transactions associated with the acquisition of Ukrainian banks by foreign investors took place in 2004. That year, 94 % of the shares of Aggio Bank were sold to the SEB Group from Sweden and 66.5 % of the shares of Creditbank Ukraine were sold to PKO BP SA. Consequently, the name of the bank was changed to Kredobank JSC, which is indicative of the new strategic direction of the bank. The bank became a member of a largest financial group in Eastern Europe — PKO BP S.A. Pekao S.A. also actively operates on the Ukrainian market. It controls 100 % of the shares of UniCredit Bank Ukraine, which specialises in the segment of individual client banking. At the end of 2007, UniCredit Bank Ukraine merged with HVB Ukraine.

The transactions associated with the acquisition of Ukrainian banks by foreign banks began to grow in 2005, as Raiffeisen Bank International acquired 93.5 % of the shares of Aval Bank, the second largest bank in terms of assets. In the same period, BNP Paribas acquired 51 % of the shares of UkrSibbank.

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[29] In 1998, the 15-pecent limit for foreign capital participation in the authorized capital of commercial banks.

Table 4.18

FOREIGN BANKS' INVESTMENT IN UKRAINE'S BANKING SECTOR

Bank in Ukraine	Acquiring bank	Country of origin	Transaction amount (USD million)	Share capital (%)
2005				
Aval	Raiffeisen International	Austria	1,028	93.5
Ukrsibbank	BNP Paribas	France	360	51.0
2006				
NRB Ukraine	Sberbank	Russia	100	100
Ukrsotsbank	Banca Intensa	Italy	1,240	88.55
Indexbank	Credit Agricole	France	263	98
Prestige Bank	Erste Bank	Austria	104	100
Universalbank	EFG Eurobank	Greece	49	99.3
Raiffeisen Ukraine	OTP Bank	Hungary	833	100
2007				
TAS-Kommerzbank	Swedbank	Sweden	735	99.98
Marine Transport Bank	Marfin Popular Bank	Cyprus	137	99.20

Source: Developed by the author on the basis of www.ukraine-arabia.ae/investment/banks

In 2006, Sberbank purchased 100 % of the shares of NRB Ukraine, and Banca Intensa (currently, Intensa Sanpaolo) acquired 98 % of the shares of Indexbank, OTP Bank — 100 % of the shares of Raiffeisen Bank Ukraine.

As Table 4.18 demonstrates, presently, the largest share in the assets of Ukraine's banking sector belongs to Austrian capital (more than 8 %), French capital (more than 7 %) and Italian capital (5 %). Since mid-2007, the role of foreign capital in Ukraine's banking sector has increased significantly. The foreign share in the authorized capital and assets of Ukrainian banks amounted to about 32 % and 32% respectively. However, there is still a need for consolidating Ukrainian banks.

After an analysis the transactions associated with the acquisition of Ukrainian banks by foreign banks, we can conclude that in all instances the model of the sale of a part of or the entire package of shares of a private Ukrainian bank to a foreign entity was utilized. The Ukrainian banking sector did not accept the schemes associated with foreign capital

entry through participation of foreign investors in the gradual privatisation of large state banks. Such schemes were utilized in the majority of countries of Central and Eastern Europe (Poland, Hungary, and the Czech Republic). The transformation model utilized in those countries led to a practically complete acquisition of the banking sector by foreign capital. The distinction of the Ukrainian practice may be due to the fact that in Ukraine, the banking sector is comprised mainly of private banks and, irrespective of a large capital segregation and insufficiency, remains stable.

4.6.5. Financial Instruments

The provision of financial services in Ukraine is regulated by the Law of Ukraine «On Financial Services and the State Regulation of Financial Services Markets» of 22 August 2001. All financial institutions are subject to mandatory registration in the state register of financial institutions. In Ukraine, the notion of «a financial institution» covers banks, credit unions, leasing companies, trust institutions, insurance companies, private pension fund, investment funds and other legal entities that provide financial services. The range of financial services specifically includes the following: the issuance and servicing of payment instruments, payment cards, checks, clearing and other settlement instruments; the management of financial assets; currency exchange; financial leasing; lending; the provision of guarantees; cash remittance; securities trading; and factoring. Loans can only be extended by licensed credit institutions.

The range of financial services and instruments provided by Ukrainian banks can be called universal. The range depends on the type of licenses held by banks. The NBU issues a license for close to 30 types of banking transactions listed in the Law of Ukraine «On Banks and Banking Activities». To be more specific, such types include the following:

- Managing accounts in the Ukrainian and foreign currencies;
- Internal and international settlements;
- Transactions with cash and cash remittance;
- Crediting, lending and depositing;
- Currency exchange;
- Securities trading;
- Brokerage services;
- Trust, consulting and analytical services;
- Purchase and sale of currency on the domestic and international interbank market.

In 2002—2006, the segment of retail banking services developed rapidly. The portfolio of retail credits, including cash loans, credits using

payment cards and consumer loans, grew nearly tenfold in the period and was worth approximately USD 6.8 billion. It could be considered that in this regard the Ukrainian market is developing along the lines of those of the other countries of Central and Eastern Europe. The key factors stimulating development are believed to be as follows: a low level of market saturation with consumer finance services, the macroeconomic climate and a rapid growth of personal income. This can be illustrated by an increase in the amount of household deposits. In the last ten days of 2006, their share in the total number of bank deposits increased from 14 % to 57 %, and in 2006 grew 76 % as compared to the level of the preceding year. That is, the increase in total deposits demonstrates the increased confidence of Ukrainian society in the banking sector.

One may also note that the majority of banks in Ukraine, both Ukrainian and foreign, regard the retail banking segment as a strategic one[30]. Consequently, competition becomes more intense and thus, impels banks to diversify their services and improve the quality of their services and professionalism in managing bank transactions. The leading banks on the deposit product market for private individuals include Aval Bank and Privatbank. About half of their commitments constitute those associated with deposits by private individuals (Dukhnenko V., Shapran V., 2006).

In Ukraine, cash transactions continue to be the predominant form of settlement. The payment card market is also developing dynamically, both in terms of the number of issued cards and the number of transactions involving the use of such cards. In the first half of 2007, over 35 million cards were in circulation, including 28 million debit cards and 7.6 million credit cards. The number of cash machines (or ATMs) amounted to 17,464. Leaders in this market include Privatbank, Nadra Bank, Raiffeisen Bank Aval, Pravexbank, Ukrsotsbank and Ukrsibbank. For comparison: in Poland, in the same period, the total of issued cards amounted to 24.9 million (including 17.5 million debit cards and 6.8 million credit cards), while the total number of cash machines equalled 10,578.

Interbank settlements in Ukraine are managed with the help of an electronic payments system (EPS) developed by the NBU. International cash transfers are managed through the SWIFT system (Society for Worldwide Inter-Bank Financial Transfer). Ukrainian banks manage a ramified system of correspondent banks.

The mortgage market is developing relatively rapidly. In 2006, the number of mortgages amounted to approximately USD 4 billion, and the index reflecting the ratio of the amount of mortgages to the GDP totalled

[30] www.die-bank.de [15.12.2007].

approximately 3.7 %. In the same period, the similar indicator for Poland, Germany and Great Britain was equal to approximately 5 %, 36 % and 80 % respectively.

Ukrainian banks also provide services that belong to the corporate banking segment, specifically: various funding services, leasing, home banking (also referred to as electronic banking) services, investment banking and corporate consulting. Citibank Ukraine is one of the banks operating in this segment; the bank focuses solely on providing services to corporate clients, specifically the Government of Ukraine and the largest enterprises. ING Bank Ukraine, Calyon and HVB are also active in the corporate finance market. However, Moody's analysts emphasise that too many banks compete for a relatively small group of creditworthy institutional clients. It is also typical that the capital capacities of Ukrainian banks are often insufficient to finance potential ambitious projects.

4.6.6. An Attempt to Diagnose the Stability of Financial Mechanisms in Ukraine and Poland in the Context of the Financial Crisis

The global financial crisis is affecting the situation of the financial systems of the countries of Central and Eastern Europe, both the EU Member States, Russia and Ukraine to an equal extent. It can also be considered that the degree of resilience in the face the financial crisis depends in such instances on the status of the real economy, existing institutional order, transparency and stability of legal decisions, confidence in the national financial system and national currency, the status of government finances, as well as preventive measures on national and international levels. Furthermore, an obvious economic slowdown impels investors to concentrate on the real economy and symptoms of regression that emerges. According to the forecasts of the European Commission, GDP growth of the EU economy in the next year is projected at 0.2 %, while for Poland such growth is anticipated at 3.8 %.

Comparing the Polish economy with those of the other countries of the region, we have to acknowledge that the state of affairs may be recognised as stable. For instance, presently (2008), the economic growth index is equal to 5.8 %, while in Hungary it amounts to 2 %. Public debt amounts to 40 % of GDP, while in Hungary it goes beyond 60 % of GDP. The budget deficit, current account deficit and interest rates are at a somewhat lower level in Poland as well. Poland's level of risk in the market of derivative instruments called credit default swaps (CDS), which demonstrates the probability of a country's default on its debts, but in practice is an indication of total additional funds to be paid to support

government bonds to some extent, also seems to be optimistic for Poland. Presently, the three-year CDS for Poland are estimated at 1.47 %, which is more beneficial as compared to the Czech Republic by 0.22 %; for the Czech Republic it amounts to 4.18 %, while for Ukraine — 19.44 %.

The situation in Poland's banking system is also satisfactory, though we must clearly state that the crisis in the global markets contributes to the growth of risk in the national banking system, both in the short term and in the long term. Interpreting in the most general manner, we can list the following key factors creating a risk to the stability of Poland's banking system: the transfer of disorder from foreign financial markets to the Polish market and a strong influence of economic slowdown in Eurozone countries. We should also mention that it is doubtful whether banks in the Polish banking system will succumb to the US subprime credit market. For a short period, a risk emerges from decreased turnover on the interbank market caused by a collapse of interbank trust. Instead, for a medium term, the risk to the stability of the financial system is associated with negative forecasts of economic growth in Poland and of major commercial partners.

The banks in Poland demonstrate satisfactory financial results, as previously, though we must emphasise that the credit risk increasingly appearing in the banks' balance sheets displays signs of materialisation. This is the product of the intensification of the extending of consumer and housing credits, predominantly in foreign currencies, which has been progressing for a number of years. It is also associated with a currency risk for credit beneficiaries, as well as possibilities of increasing the credit risk adopted by banks depending on changes to the national currency exchange rate [Przegląd stabilności... 2008 : 9]. It is envisaged that the global financial crisis will have an impact on the reduction of the credit supply in the Polish economy and the stiffening of credit criteria for retail and corporate clients, as well as an increase in the banks' margin.

As a result of the emergence of the above-mentioned threats to the institution of the financial security network in Poland's banking system, a number of measures have been taken to sustain financial stability and to resume the accurate operation of systemic mechanisms. The major initiatives in this sphere include the following:

— Convocation of the Financial Stability Committee;

— Adoption of a regulatory package for financial stability;

— Adoption of the so-called Trust Package by the NBP, which must offset the adverse effect of the financial crisis on interbank trust.

Among the above-mentioned measures, we should particularly note the adoption of the draft Law on the Banking Guarantee Fund, intended to modify the framework (to exclude the joint assecuration basis) and the

deposit protection level in Poland from the existing one to EUR 50,000. The principal objectives determined in the Trust Package concentrate on creating opportunities for banks to acquire Zloty resources for a period longer than one day, creating opportunities for banks to acquire currency resources and enhancing opportunities for banks to receive Zloty turnover through enhanced guarantees of NBP transactions [Przegląd stabilności..., 2008 : 11—12].

As compared to Poland's banking system, the banking system of Ukraine is characterized by a high level of risk and instability. This is illustrated by ratings provided by global rating agencies. For instance, Standard & Poor's downgraded the foreign currency debt of Ukraine, as both the Government and enterprises had to make accelerated payments under their obligations in the amount of nearly USD 100 billion. The effects of the global financial crisis coincide with an unstable political climate in Ukraine, strong dependence of the banking system in the current political situation, intensive inflation growth, slump in industrial production and non-conformity of regulatory and control actions to the development level of this system. Furthermore, the Ukrainian economy, the primary sector of which is metallurgy (the share of metallurgy in the GDP of Ukraine amounts to approximately 27 %), is suffering from the economic regress, primarily due to the collapse in steel prices on global markets. As a result of the significant weakening of the Hryvnia, imports will become more expensive in the short run.

Overall, we can list the following distinctive symptoms of financial instability in Ukraine:

— A lack of public confidence in the national currency, which results in a large-scale pre-term repayment of bank deposits;

— A lack of turnover in commercial banks;

— The fall in the Hryvnia exchange rate.

To mitigate the effects of the ambient financial crisis and to prevent turmoil, the NBU adopted immediate anti-crisis decisions. In connection with massive repayments of resources accumulated on fixed-term deposit accounts, the NBU introduced a semi-annual moratorium on pre-term withdrawal of accumulated resources (this does not apply to current accounts). The decision was supposed to prevent the collapse of several banks lacking turnover and unable to immediately regulate liabilities to their clients. The NBU also recommended commercial banks to ban the extending of consumer credits and commissioned to open loan facilities for exporters. The decision was intended to assure the improvement of bank turnover and to support firms capable of exporting their products. Furthermore, the NBU limited the permissible foreign currency spread at currency exchange offices to 5 %.

Due to the devaluation of the national currency by nearly 20 %, by utilizing available instruments for monetary policy implementation, the NBU conducted currency intervention, injecting close to USD 2.5 billion out of USD 38 billion of Ukraine's currency reserves. However, the initiated measure delivered short-term results — following relative stabilisation, the national currency rate, as previously, continued to weaken (while in September 2008, one dollar was sold at about UAH 4.8, in October 2008 it was sold for close to UAH 7). Within the framework of the initiated measures, the NBU extended credits to 27 commercial banks for a total amount of UAH 9.9 billion. However, due to paying capacity problems, some commercial banks introduced restrictions on cash payments through cash machines (for instance, at Khreshchatik Bank, the daily limit on payments amounted to an equivalent of USD 350).

To assure financial stability and mechanisms that guarantee payments under obligations, the Ukrainian Government sought assistance from the International Monetary Fund (IMF) in the form of a stabilisation credit. The stand-by arrangement was conditional upon the Parliament of Ukraine meeting the IMF's requirements to adopt a package of anti-crisis measures, which, as per the IMF leadership's instructions, included, inter alia, cutting the budget deficit, the current account turnover deficit and elaborating a bank support plan. The IMF's Executive Board clarified, that assistance to Ukraine should enhance investors' confidence in the country and the economic and financial stability of Ukraine. Therefore, the IMF also emphasised the need to observe fiscal discipline, an explicit currency system and bank re-capitalization. Consequently, the Parliament of Ukraine adopted an anti-crisis law required for the receipt of the USD 16.5 billion assistance from the IMF. The anti-crisis program related to institutions and financial mechanisms included, inter alia, the following specific decisions:

— Entitling the government to nationalize banks that are under threat of bankruptcy;

— Simplifying the procedures associated to increasing bank capital;

— Transferring UAH 1 billion to the Deposit Guarantee Fund;

— Raising the individual deposit-guarantee quota from UAH 50,000 to UAH 100,000;

— Establishing an ad hoc inter-governmental group to control the situation on the financial market of Ukraine, which is authorized to submit various draft normative acts to the Cabinet of Ministers of Ukraine, bypassing the agenda of the meetings of the Cabinet of Ministers of Ukraine.

4.6.7. Conclusions

The development of the institutional infrastructure of Ukraine's banking system and financial mechanisms in the 1990s was affected by both favorable and negative factors. The favorable factors include the implementation of a currency reform, the suspension of hyperinflation, the introduction of international reporting principles and accounting standards for banks, as well as the taking of measures designed to adjust the Ukrainian banking system to European standards. The following barriers to the development of the banking system should be singled out: non-transparency of the economic system, a lack of trust in the banking system, a liberal licensing policy in the first half of the 1990s and a weak institutional and legislative environment for the operation of the NBU and banking supervision.

Having researched the development of the banking system in Ukraine in the 1990s, we can conclude that the transformation of the banking system into a market banking system and towards potential EU integration was progressing at a relatively slow pace. This is illustrated by a long-term, as compared to that of Poland, process for creating a legal framework for the operation of the central bank and commercial banks, regulating the sphere of supervision and introducing economic normative requirements. However, we should emphasise that regardless of the weaknesses of the system and considerable flaws that developed in the processes of transformation, in 2000—2007, Ukraine did not experience a banking crisis, with all its properties and features, including bankruptcies and the massive withdrawal of banking holdings. In 2004, because of a political crisis, there was a withdrawal of bank holdings, which created the real threat of a crisis emerging in the banking system. In the Polish banking system, the crisis occurred in 1992—1994. It was caused by the degradation of the quality of extended credits. In 1994—1995, banks started showing symptoms of recovery from the crisis.

Institutional and legal decisions pertaining to the central institutions of the Ukrainian banking system can be assessed as significant, however insufficient. The NBU and the Deposit Guarantee Fund were supposed to take measures to enhance public confidence in the banking system and to adjust the Ukrainian practice to international banking standards. The issue of securing the independence of the central bank from political changes is particularly important. The NBU can only accomplish its principal task, which is to assure price stability and, thus, financial stability, if it remains a fully independent body, both subjectively and objectively. The key spheres that require bringing into compliance with the recommendations of the Basel Committee on Banking Supervision and the EU Directives are banking supervision and economic normative requirements.

Lately, the situation with Ukrainian banks seems to be gradually improving. This has been primarily due to the increasing activity of foreign banks, which stimulates the competition and rapid development of the retail financial services market. Nonetheless, the current transactions associated with the acquisition of Ukrainian banks by foreign investors have not resulted in a significant reduction in the number of banks. The sector remains extremely disintegrated. Currently, there is a need to consolidate small- and medium-sized banks and to raise more capital. The escalating inter-sector competition, gradual integration in the European financial market and continuing globalization of financial services will create a need for the consolidation of Ukrainian banks in the next few years. Presently, in the context of potential integration in the EU, the implementation of a comprehensive programme for the development of Ukrainian banks according to European standards is of particular importance. The key issues include: consolidating the stability and credibility of the banking system, raising more equity capital for the banks and utilizing long-term financing instruments more actively, including the development of a mortgage market, structural instruments and debt instruments for enterprises.

Summarizing, we have to state that Ukraine's banking system will further develop in the context of harmonization with international banking standards. Research of the development and operation of the Ukrainian banking system in the context of Polish practice can positively influence the development of the banking system adjusted to the requirements of a developing economy and facilitate the elimination of barriers and threats associated with transformation.

4.7. Fiscal Policy Instruments

4.7.1. Overview of Taxation in Ukraine

The Ukrainian law on the tax system distinguishes as many as 26 types of taxes and national payments adopted by the Parliament of Ukraine and the Parliament of the Autonomous Republic of Crimea. These, inter alia, include a value added tax (VAT), an excise duty, an income tax (personal and corporate), a customs duty, a real estate tax, a land tax, a tax on vehicles and other self-propelled machines and devices. There are also payments associated with, for instance, the extraction of raw materials or trademark registration, local taxes (a tax on advertising and a local tax) and 14 types of local payments (all taxes and payments accrued to local self-government budgets). Similar to those existing in Poland, their rates

must stay within the limits determined by the law. Local authorities autonomously determine the method of settlement of such taxes and payments.

Two rates of value added tax[31], which is an equivalent of the Polish *podatek od wartosci dodanej*, are applied in Ukraine: the basic 20 % VAT rate and full VAT exemption. The list of transactions that are zero-rated or exempt from VAT is different from that of Poland. Instead, the basic rate of corporate income tax amounts to 25 % of income, while, for instance, the rate of income tax on insurance activities is equal to only 3 %. At the same time, personal income tax is of a linear nature and amounts to 13 %; however, all excise goods are subject to an excise rate, which may vary from 10 % to 300 %.

The criteria of tax liabilities are also somewhat different from those in Poland. There is property accountability for such tax liabilities. A tax liability is associated solely with a taxpayer. There are no provisions that would transfer this liability to a third party. Thus, this is different from Polish tax regulations, which envisage a transfer of liabilities to the taxpayer's relatives and his/her legal successors. However, there is no system of tax evaluation, for example, at a 75 % rate, which is acceptable in Poland, which is not covered in sources that have been revealed. Ukrainian provisions basically do not envisage tax exemptions for individuals.

Tax regulations are not very transparent and cause numerous problems during their interpretation. However, this is not the only cause of such problems, since provisions of individual laws often do not agree; the provisions that in Poland do not relate to taxation frequently regulate tax issues. For instance, the Commercial Code, inter alia, lays down general criteria for tax charges. For example, the VAT charge criteria defined in a relevant law on VAT and executive acts contradict numerous provisions of budget laws.

4.7.2. Tax Law in Poland

Since 2 April 1997, the Constitution of the Republic of Poland, as well as the below-listed executive laws and provisions based on the Constitution, define tax law in Poland:

1) The law on taxation (No. 8, later No. 60 of 15 January 2005), which regulates issues associated with tax liabilities, the tax process, taxation control and inspection actions;

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[31] The author often refers to the abbreviation of VAP for *podatek od wartosci dodanej*, which is an equivalent of VAT. (*Note by Ukrainian editors*)

2) The substantive tax law, which immediately regulates the rights and duties of entities, as well as the rights associated with each tax.

The law on taxation took effect on 1 January 1999. It substituted the law on tax liabilities, a section of the Code of Administrative Procedure, and other tax provisions dispersed in various legal acts. The law on taxation created grounds for complying with the following:

— Norms of legality and legitimacy, i.e. the obligation to base decisions solely on the law, rather than on the so-called secondary law;

— Norms associated with proving the material truth;

— Norms associated with providing legal assistance, i.e. the duty of the tax authorities to provide important information that has an impact on the restitution of rights and obligations in the taxation process;

— Norms associated with exercising legal control over the legality of administrative decisions;

— Norms pertaining to the validity period of final resolutions at the administrative forum.

The law on taxation also mentions the rights and duties of tax successors, clarifies joint responsibility for tax liabilities, and, in a more precise manner, elaborates on surcharges and the refund of such, the right to inspect the bank accounts of taxpayers, as well as obligations and sanctions associated with fiscal confidentiality.

The efforts to adapt the Polish tax system to the fiscal standards mandatory for the EU started only in the year 2000.

The development of the currently operating tax system was inclusive of the need to eliminate distinctions between non-private fiscal rules of a centrally planned economy and those of a democratic rule of law state, as well as an urgent need to adjust tax law to the standards binding upon EU countries. The need to comply with other international fiscal conventions associated with WTO membership also played an essential role.

Developing its tax system, Poland utilized a relevant scope of accumulated knowledge about a rational tax system corresponding to the transformation challenges and a modern capitalist state. In the context of disputes associated with the methods of interpreting the fundamentals and functions of taxes in economic literature, the erasure of neoliberal and interventionist options affected tax reform processes. In practice, interest groups, which dominated the political arena for a while, had an impact on the tax changes introduced. Weaknesses of the political order often complicated the implementation of fiscal reforms,

which were supposed to facilitate public and political solidarity and sustained economic growth. Consequently, government finances remain a partially open issue.

An acute crisis of government finances, which became apparent at the end of the first and beginning of the second quarters of 1991, accelerated the decision to reform the tax system. The crisis demonstrated in full, not only the acute effects of shock macroeconomic stabilisation and deregulation, but also the non-functionality of the centrally planned fiscal regulation of the economy. In the case of Poland, the following reflected the non-correspondence of taxes to the implemented public and economic goals:

— A lack of guarantees of generating revenues at a sufficient level, since taxes could not provide in full for public policy goals;

— Unequal development of individual sectors of the economy, regardless of the legal form; and

— Non-facilitation of capital accumulation and economic activities.

It was also impossible to agree with the income tax burden imposed via salaries and prices administered by the government, as the case has been until now, since such tax burden distorted conditions for the rational economic decisions of commercial entities.

The discrimination of owners and tax instability, which were typical of a post-socialist fiscal system, could not be acceptable in the context of a democratic rule of law state and competition. Regardless of shock deregulation and macroeconomic stabilization, fiscal reforms were gaining momentum, even though the progress was gradual and the reforms were delayed.

In the first four years of commercial transformation, when the fundamentals of a new tax system were developed, a liberal idea was unquestionably dominant. Because of this, changes in the tax system were aimed at neutralising the budget policy and ensuring macroeconomic stabilization.

The implementation of fiscal reform was based upon compliance with the norm of tax authority centralism. However, the norm was restricted with regard to the centralized order of introducing fiscal rules. This created opportunities for the decentralization of government finances and delegation of a part of taxes and payments to local self-government.

The process of liberal fiscal initiatives started with a self-government reform. To provide financial assistance, on 12 January 1991, Parliament introduced a law on taxes and local payments (1991 No. 9, then 31, with subsequent amendments). Among them, the following were critical to the financial independence of gminas: a real

estate tax, an agricultural tax, a tax on inheritance and gifts, and a tax on transportation (Table 4.19). These taxes were administered by local authorities and protected by the law.

Table 4.19

STRUCTURE OF THE REVENUES OF GMINAS BY SOURCE IN POLAND IN 1991—1998, %

Revenues	1991	1992	1993	1994	1995	1996	1997	1998
Own revenues	45.4	47.3	46.5	40.4	41.3	36.4	37.6	33.5
Taxes and local payments	29.0	33.9	32.9	28.0	28.3	23.8	23.5	No data
Real estate	15.3	16.4	14.8	13.4	14.1	11.4	11.2	11.3
Agricultural	3.8	2.7	3.8	2.8	2.5	2.2	2.0	1.8
From transportation	1.1	4.9	3.3	2.8	3.0	2.7	2.9	0.8
Tax card	2.4	3.2	2.8	1.9	1.4	1.1	1.0	No data
Share in central taxes	28.9	22.2	25.4	23.1	23.0	24.5	24.2	24.7
Subventions	13.6	11.7	11.4	14.9	15.2	26.3	24.1	25.4
Targeted subsidies	12.0	18.8	16.7	21.6	20.6	13.8	14.1	14.3

Source: Kosek-Wojnar, Surówka, 2007, page 157

The next step in the transformation of the Polish tax system was to concentrate the financial power of the government on value added tax, personal income tax, excise tax and, partially customs tax (Table 4.20). However, the fastest reform was that of the direct tax imposed on individuals. As of 1 January 1992, a personal income tax replaced the previously existing taxes on income, including a tax on income from economic activities of private individuals, a tax on salaries and wages at enterprises irrespective of their form of ownership, and an equalization tax.

Table 4.20

STRUCTURE OF REVENUES OF THE GOVERNMENT BUDGET IN 1994—2005

List	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total revenues, PLN billion	63.1	83.7	99.7	119.8	126.6	125.9	135.7	140.5	143.5	152.1	156.1	173.7
1. Tax revenues	81.7	82.4	84.1	82.4	90.0	89.6	88.2	84.8	89.7	88.9	87.6	88.9
1.1. Indirect taxes:	38.5	43.4	47.0	46.1	50.9	59.2	58.7	58.6	62.4	62.8	65.0	66.9
a) Tax on income from goods and services	23.8	24.7	28.1	30.8	33.9	38.8	38.1	37.6	40.0	39.7	40.7	42.1
b) Excise tax	14.3	14.5	15.6	14.9	16.6	20.0	20.1	20.5	21.9	22.6	23.8	24.3
c) Gambling tax	0.3	0.2	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5
1.2. Corporate income tax	10.8	10.6	10.8	11.1	11.7	12.0	12.4	9.4	10.5	9.3	8.5	8.5
1.2. Personal income tax	27.5	28.1	26.3	25.0	27.4	18.4	17.0	16.7	16.8	16.9	14.1	13.5
2. Customs duties	7.8	6.9	6.5	5.9	4.8	4.4	3.7	2.9	2.7	2.5	1.4	0.8
3. Non-tax revenues	8.0	7.5	5.6	6.2	5.2	5.9	8.1	11.5	7.3	11.0	9.4	8.7
4. Privatisation revenues	2.5	3.2	3.8	5.5	—	—	—	—	—	—	—	—
5. Foreign revenues	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.8	0.3	0.2	0.1	0.0
6. Budget compensation	—	—	—	—	—	—	—	—	—	—	1.5	1.6
Total revenues	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Owsiak, 2005, page 518

4.7.3. Personal Income Tax

The law on personal income tax was subject to numerous modifications in relation to tax relief, deductions and contributions. Errors also occurred during the process; the parties engaged in fierce bargaining to gain political and professional benefits.

Nominally, personal income tax has a progressive nature; three tax rates are binding — 19 %, 30 % and 40 %. Since 2009, only two rates have become binding — 18 % and 32 %. In actual fact, personal income tax in Poland is pseudo-linear, since the third tax bracket covers only 1 % of taxpayers, while the first one encompasses approximately 95 %. Irrespective of the above, the taxpayers of this tax bracket contribute over 50 % of revenues to the state budget, while taxpayers of the third tax bracket account for close to 30 % of revenues, which distinguishes Poland from the other EU Member States (Table 4.21).

Table 4.21

PERSONAL INCOME TAX RATES IN THE EUROPEAN UNION IN 2007

Country	Initial rates	Highest rates	Number of levels
Austria	0	50	4
Belgium	25	50	5
Bulgaria	12	32	4
Cyprus	20	30	3
Czech Republic	12	32	4
Denmark	5.48	26.48	3
Estonia	22	…	1
Finland	0	32.5	6
France	0	48.09	7
Greece	15	40	3
Spain	9.06	29.16	5
The Netherlands	2.45	52	4
Ireland	20	42	2
Lithuania	15	33	2
Luxemburg	0	38	10
Latvia	25	…	1
Malta	0	35	6
Germany	0	42	32
Poland	19	40	3
Portugal	10.5	42	7

Continuation of Table 4.21

Country	Initial rates	Highest rates	Number of levels
Romania	16	…	1
Slovakia	19	…	1
Slovenia	10	40	3
Sweden	0	25	3
Hungary	18	36	2
Great Britain	10	40	3
Italy	23	43	4

Source: Owsiak, 2007, page 1257

The binding nature of the tax implies that all personal income generated both domestically and abroad, is subject to taxation, apart from the income of farmers liable for the payment of a separate agricultural tax, with the following deductions:

— A minimum tax exemption[32],

— Income from the work of employees and laborers, depending on the total number of jobs.

The fact that no entity-ba sed *Continuation of* exemptions, apart from those for disabled war veterans, are applied also illustrates the binding nature of this tax. However, the tax envisages a broad range of subject-based exemptions of a social nature (cash aid, scolarships, and grants), an investment nature (revenues generated on the territory of special economic zones) and an economic nature.

With regard to some sources of income, the law distinguishes between lump-sum tax rates in the amount of 20 % and 50 % of income. The 20 % lump-sum tax rate applies to the following:

— Income from independent artistic, literary, scientific and journalistic activities;

— Remuneration for the implementation of tasks assigned by government authorities, state or local self-government administrations, courts and prosecutor's offices; and

— Income from commissioning, if such services are not to the benefit of the people.

Instead, the 50 % lump-sum tax rate applies to the following:

— Salaries, as well as licensing payments, the transfer of property rights to inventions, topography of integrated circuits, trademarks or design samples;

[32] The minimum exemption from taxation is significantly lower than the social minimum in 2008: PLN 1,335 to PLN 2,502.

— Income from the use of copyright and associated rights or disposal of such rights by the inventors.

Personal income taxation can be conducted according to general terms, in the form of a lump-sum taxation on registered revenues, «tax card», and a lump-sum taxation paid by clerics.

The general basis applies to each individual. Married couples are entitled to joint income taxation. The law on personal income tax does not cover the following: agricultural income, other than income from special agricultural productive activities, forestry taxation, income from inheritance and gifts, partition of property jointly owned by a married couple, income from factors, which cannot be the subject of legally effective cotract.

Income generated abroad is exempt from taxation in Poland, if this is envisaged by an international agreement on avoiding double taxation or another international agreement that Poland is a party to. Income generated in the country that is not subject to the avoidance of double taxation is taxed on a general basis; however, the tax imposed is diminished by the amount equal to that of the tax on income generated in another country, which has been paid abroad.

The Polish tax law envisages two forms of lump-sum taxation of individuals pursuing business activities - at lump-sum tax rates on registered revenue and by «tax card». Introduced in 1994, the lump-sum tax rate is intended to simplify the taxation of small businesses and is an element of the harmonization of taxes with the European legislation. Taxation in the form of a lump-sum evidential tax rate can be utilized by private individuals doing business, as well as partnership or full partnerships of private individuals. The lump-sum tax rate applies solely to entities that in 2008 earned aggregate revenue that did not exceed EUR 15,000[33].

The following lump-sum tax rates on revenue apply:

— 20 % for revenue earned by liberal professions;

— 8.5 % for revenue earned from the provision of services, rent of premises, sale on commission, services associated with childcare and fire safety, goods produced from commissioned materials;

— 5.5 % of income gained from production and construction activities, vehicles with a freight capacity of more than 2 tons, and commission fee received from the trade activities mentioned in the law;

— 3 % of income gained from service activities in the scope of trade and catering, with the exception of income on the sale of drinks with a volume of alcohol of more than 1.5%.

The law determines the conditions for exemption from the lump-sum tax rate, deductions from received income and coverage of expenses from previous

[33] In 2003—2007, the limit amounted to EUR 250 thousand.

years. Health contributions and contributions to NGOs for public benefit purposes can be deducted from the lump-sum tax rate (up to 1 % of the tax).

The entities liable to the taxation of their evident income at a lump-sum tax rate do not maintain accounting and tax records of income and expenditure in their cashbooks. They are obliged to maintain the records of income and equipment, to keep confirmation of purchases and to have a list of sustained resources, non-material assets and legal valuables. They can also extend their tax credit. The lump-sum tax rate is calculated quarterly.

Taxation by «tax card» has been in effect since 1992; a «tax card» is available to private individuals pursing independent entrepreneurial activities in the form of a simple company. Income taxed by «tax card» includes income from production and services in the sphere of retail trade, non-alcoholic foodstuffs, education rendered by freelancers, home childcare and nursing, as well as veterinary and entertainment services. Separate tables outline limits on the number of employees (up to 5 people) for each type of activity. The limits may be raised on the territories of gminas that are under the threat of extremely high unemployment and with regard to persons concurrently engaged in agriculture.

4.7.4. Corporate Income Tax

Since corporate income tax (CIT) in the context of a market economy is a parameter of economic choice (investment-related decisions, raising capital, return on launching a new business), there was a need for its reform.[34] Consequently, in 1992, identical terms for the assessment of the CIT, irrespective of the form of ownership, form of incorporation and sector, were introduced.

The numerous novelties of the law on CIT represented a successful reduction of the tax rate from 40 %, which was binding until 1996, 38 % (1997), 36 % (1998), 30 % (2000), and 28 % (2001) to 19 % in 2004, as well as the reduction of more than 30 initially binding subject-based exemptions, with only a few remaining in 2007. The exemptions apply to the following: a comprehensive or partial sale of real estate that is part of a farm; income of taxpayers whose statutory objective is to pursue research and technology, education and cultural activities, which support public initiatives; revenues from entrepreneurial activities carried out in a special economic zone; subsidies allocated from the state budget or a territorial self-government budget; income of ecclesiastical legal entities; and the tax on lotteries. Total deductions from gifts cannot exceed 10 % of income. Gifts to private individuals and legal entities, as well as some organisational

[34] Law of 15 February 1992 on corporate income tax

units with no legal identity (producers of fuel goods, alcoholic beverages containing more than 1.5 % of alcohol, tobacco products, electronics, as well as goods made of or containing precious metals), are not deductible.

Irrespective of personal income tax and corporate income tax, a tax on the sale of government shares and a lottery tax have been in effect since 1995.

Table 4.22

CORPORATE INCOME TAX (CIT) RATES

Country	1995	1997	2002	2004	2005	2006	2007
Austria	…	34	…	34	25	25	25
Belgium	…	40.17	…	33.99	33.99	33,99	33,99
Bulgaria	…	25	…	34	34	34	34
Cyprus	…	…	28	15	10	10	10
Czech Republic	41	25	31	28	26	24	24
Denmark	34	34	30	30	28	28	28
Estonia	…	…	…	…	24	23	22
Finland	…	35	32	31	31	31	31
France	36.66	36.66	34.33	34.33	33.83	33.83	33.83
Greece	35	40	35	35	32	29	25
Spain	35	35	35	35	35	35	32.5
Netherlands	35	35	35	34.5	31,5	29.6	25
Ireland	38	36	16	12,5	12.5	12.5	12.5
Lithuania	…	…	…	…	15	15	15
Luxemburg	40.29	30.34	30.38	30.38	30.38	29.63	29.63
Latvia	…	…	…	…	15	15	15
Malta	…	…	…	…	35	35	35
Germany	59	57.5	38.36	38.29	38.31	38.34	38.36
Poland	40	38	28	19	19	19	19
Portugal	39.6	39.6	33	27.5	27.5	27.5	25
Romania	…	…	25	25	16	16	16
Slovakia	…	26	24.5	22	20	20	20
Slovenia	…	…	25	19	19	19	19
Sweden	28	28	28	28	28	28	28
Hungary	…	18	18	16	16	16	16
Great Britain	33	33	31	30	30	30	30
Italy	52.2	53.2	40.25	37.25	37.25	37.25	37.25

Source: Owsiak, 2007, p. 1258

4.7.5. Value Added Tax

In view of a weakly developed treasury apparatus, indirect taxes constitute the main source of budget revenues. Therefore, the greatest transaction of tax reforms was the introduction of a value added tax on goods and services adjusted to the requirements of the common system of taxation, on 1 July 1993. The new tax substituted five binding indirect taxes: the sales tax and the turnover tax. Along with regulatory changes, the changes associated with the above-mentioned taxes also introduced transitional indirect taxes: in 1994—1997 — an imports tax or an extremely controversial tax on excessive salary increases, which was in effect until 1996. Equalization payments on certain agricultural goods and consumer goods brought from abroad were introduced (Law of 1994, No. 43, then 160).

Numerous changes to the law of May 2004 complicated the process of forecasting the effects of taxation on economic intentions. Presently, the law on VAT of 11 March 2004 is in effect; this tax belongs to exceptionally complicated and barely transparent taxes. Taxpayers often have problems associated with its application.

Value added tax is applicable to the turnover of goods, i.e.:

— Supply of goods and services on the territory of the Republic of Poland;

— Exports and imports of goods;

— Acquisition of goods in EU countries and supply of such goods to the territory of the Republic of Poland.

A tax liability arises upon the release of goods or the issuance of an invoice, however not later than within 7 days following the delivery of a commodity. A «small taxpayer», i.e. a taxpayer whose annual turnover of goods does not exceed EUR 800,000, has the right to settle VAT on a quarterly basis. This means that having regulated transactions with customers, the taxpayer must submit returns to a relevant tax office, while a relevant tax liability must be regulated within 90 days following the day of the supply of a commodity or the delivery of a service.

A tax liability arises in the place where a good is dispatched or a service is provided, i.e. the place where transportation begins, installation ends, goods (that will not be dispatched or transported) are stored and the import of goods is immediately confirmed. The place where the dispatch or transport of goods is complete is recognised as the place of the intra-Community acquisition of goods. With regard to some services, the place of their provision is the location of the service provider or the location of the real estate that is the object of the turnover. The following tax rates apply to VAT:

1) A standard rate of 22 % applicable to all goods, other than the exports of goods and services and intra-Community turnover, as well as goods and services that are subject to other tax rates according to the law;

2) A reduced tax rate of 7 % is applicable to goods and services associated with agriculture and forestry, healthcare, foodstuffs, books, periodicals and press, transportation services, handicrafts, identified people-oriented services along with services covered by a public housing program;

3) A rate of 3 % was introduced on 1 May 2008 for agricultural products and services outlined in the law; the rate will later be increased to 7 %;

4) A rate of 0 % is applicable to the taxation of exports in goods and the intra-Community supply of goods. A zero % rate is also applicable to some goods and services provided on the territory of the Republic of Poland, for instance, some ships, a part of marine transport, air transport resources, international transportation services, and the delivery of goods to duty-free zones.

Table 4.23

VAT RATES IN EU COUNTRIES, %

Country	Preferential rates	General rates
Austria	10	20
Belgium	0; 6; 12	21
Denmark	0	25
Finland	0; 8; 17	22
France	2.1; 5.5	19.6
Greece	4.5; 9	19
Spain	4; 7	16
The Netherlands	6	19
Ireland	0; 4.8; 13.5	21
Luxemburg	3; 6; 12	15
Germany	7	16
Portugal	5; 12	21
Sweden	0; 6; 12	25
Great Britain	0; 5	17.5
Italy	4.5; 10	20
Malta	0; 5	18
Cyprus	0; 5	15
Czech Republic	5	19
Estonia	0; 5	18

Continuation of Table 4.23

Country	Preferential rates	General rates
Lithuania	5; 9	18
Latvia	5	18
Poland	0; 3; 7	22
Slovakia	—	19
Slovenia	8.5	20
Hungary	5; 15	20

Source: Szczodrowski, 2007, page 194

4.7.6. Excises

An excise tax is another indirect tax playing an essential role in the state budget. The attractiveness of the excise tax as a source of state budget replenishment arises from the fact that this tax is easy to collect and productive at the same time. For instance, in Poland, excise revenues are constantly growing. While in 1994, they accounted for 14.3 % of state revenues, presently their share is close to 30 %.

The substance of the excise tax is similar to that of value added tax, were subject to substantial changes prior to May 2004. Since Poland's accession to the EU, a new law on the excise tax (No. 29, then 257, with subsequent changes) defines the essence of the excise tax. The new law on the excise tax adjusts the structure of this tax to EU requirements, contains rules regulating the denoting of excise goods with treasury excise marks. An annex to the law on the excise tax mentions excise goods. Excise tax harmonization with the EU standards meant reducing the list of excise goods to motor fuels, heating fuels, gas, energy, passenger vehicles, cosmetics, decorative products, perfumes, fur and leather products, playing cards, equipment of entertainment facilities, as well as hunting firearms and gas weapons. To assure the complete coordination of decisions related to the turnover and the basis of taxation, as well as exemption from the excise tax, pursuant to EU rules, excise goods in put into a separate category. There is an opportunity to suspend the collection of excises with regard to harmonized excise products. Prior to the forwarding of a commodity for consumption (for the storage period), no benefits or tax exemptions apply to excises and excise rates are determined as follows:

— % of the tax base;

— Quota per unit of production;
— % of the maximum retail price;
— Quota per unit of production at the maximum retail price.

The law on the excise tax does not establish final binding excise rates. This is a prerogative of the Ministry of Finance, which determines preconditions to be taken into consideration during the establishment of excise rates. Excise rates for a given year are changed as per minimum rates directly arising from EU law provisions and fundamentals of the budget law.

Table 4.24

MINIMUM EXCISE RATES, BINDING ON INDIVIDUAL PRODUCTS IN THE EU

Product	EUR
Mineral oils	
Leaded petrol	421 (421)
Unleaded petrol	359 (359)
Diesel	302 (330)
Gas for vehicles	302 (330)
Heating fuels	0
Heavy fuel oil	15
LPG (per 1,000 kilogram)	125 (125)
Natural gas (per gigajoule)	2.6 (2.6)
Alcoholic beverages	
Beer	0.748—1.87 depending on the content of alcohol
Wine	0
Ethyl alcohol	550
Prepared raw material products	45
Tobacco products	
Cigarettes with cardboard holder (1000 each)	57 % of the retail price (not less than EUR 60)
Cigars, cigarettes	5 % of the retail price or EUR 11 per 1,000 each or EUR 11 per kilogram

Note. Values in brackets show excise rates for 2010
Source: Szczodrowski, 2007, page 204

4.7.7. The Problem of Tax Harmonization

The freedom of the movement of goods, capital and people, which is guaranteed by the common European market of States, which are Signatories to the EU Treaty, raises the question of the role of taxes in the integration process. The need for harmonizing taxes was determined in the Treaty of Rome (Article 83). At the time of the drafting of the Treaty of Rome, opinions were expressed, that the harmonization of indirect taxes and the elimination of customs barriers were sufficient to put into practice the idea of a common internal market.

The development of integration processes and the enhancement of the role of global cooperation currently raise many questions associated with the differentiation of direct taxes, particularly those associated with unfair competition arising from differentiation, the complication of the turnover of capital and revenues from capital, the impact of taxation on salaries and wages and relevant labour migration, as well as the international transfer of taxes, i.e. tax dumping. The issue also arises of fair taxation in European countries. All these issues are part of the general tendency to reduce direct taxes. Such reductions have features of spontaneous harmonization, which by its nature remains distantly related to issues of justice in taxation and fair competition.

Therefore, the harmonization of direct taxes, along with the discussed harmonization of indirect taxes, has been increasingly relevant to EU taxation-related debates.

A comprehensive harmonization of direct taxes requires an answer to a number of questions pertaining to the impact of such harmonization on the following:

— State budget and state finances imbalances;

— Opportunity to reduce personal income tax, if the harmonization of direct taxes would lead to the reduction of government revenues;

— Effects on labor mobility, the raising of foreign investment and the motivating of enterprises to invest;

— Marginal scope of economic aid to transportation corporations and the reallocation of government debt arising from such aid between countries.

The harmonization of tax provisions is conditional upon an absolute requirement for the prevention of unjustified benefits emerging from the application of tax provisions by a given member-state. Discrimination or tax prevalence of regions, productions or businesses, violates the fundamental rules of well-defined markets, including the requirements of various and similar conditions for competition.

The European Commission raised the problem of the excessive differentiation of tax systems and harmonization efforts in this sphere as

early as in 1985. The document «Completing the Internal Market: White Paper from the Commission to the European Council» contained 282 proposals regarding the elimination of practical, technical and tax barriers to the completion of a common internal market. Since that time, the European Council is annually provided with a report on the status of the implementation of the mentioned goals. The harmonization of direct taxes is also complicated by the fact that it was not envisaged in the Treaty on the European Union. Based on the above, the principle of subsidiarity is the only binding condition with regard to the problem of tax commitments. This implies that the European Union can intervene in integration matters only when individual states fail to attain their goals independently. However, pursuant to Article 94 of the EC Treaty, legal regulations that have an immediate effect on the functioning of the common market are subject to harmonization. Opportunities to take action on the harmonization of tax law that arise from this Article require compliance with the condition of a joint decision of the European Council (Article 308 of the EC Treaty). These procedural requirements regarding the heterogeneity of tax harmonization effects on the attaining of social and economic goals in individual states illustrate that this process faces great resistance; therefore, there is presently no common tax law for the entire EU. Only indirect taxes are the exception. The creation of a common internal market envisaged by the Maastricht Treaty of 1 January 1993 on border control established a need for preventing double taxation and the violation of competition rules.

Guided by the Council Directive of 1967, the Member States of that time replaced all multiphase taxes applied on the territory of the Community with value added tax. However, some of the states retained certain freedom to establish a tax basis and the majority of tax rates. The process of VAT system unification began with the adoption of the Sixth Council Directive on 17 May 1977. The following was subject to harmonization: taxable persons, taxable transactions, the base of tax liabilities, the tax base, tax exemptions, the mechanism of tax deductions, as well as VAT taxation of small undertakings, farmers and travel agents. However, the Directive did not formulate minimum or maximum tax rates. The Directive has been subject to numerous updates. Presently, Council Directive 2006/112/EC of 28 November 2006 is a new legal act regulating all elements of the VAT system. The VAT properties common to all Member States of the EU relate to taxable persons, taxable transactions, exemptions and the tax base. This illustrates the unification of all elements of the tax except for the rates and deduction conditions. Every EU Member State introduces its own tax rates. Since 1 January 1993, the tax rate has been set on a level not lower than 15 % and

essentially reduced rates, bypassing the transition period, have been defined at a level not lower than 5 %. For assuring the neutrality of the tax system, in 1967, the harmonization of the excise duty was adopted, based on the following conditions:

— Retaining excises with a large fiscal value for the budgets of certain states and their further harmonization;

— Retaining excises with local effects without harmonization;

— Eliminating excises with low fiscal productivity or incorporating them in the general tax on turnover.

The differentiation of the basic and preferential tax rates is sometimes obstructed in free exchange of goods and services. However, they may not be removed due to unresolved problems associated with the harmonization of direct taxes and various social and budgetary problems of individual Member States.

The problem associated with direct tax differentiation and their role in the free movement of labor and capital has existed for many years. Since all legal regulations that have an immediate effect on the functioning of common markets are subject to unification, pursuant to Article 94 of the Treaty of Rome, the harmonization of direct taxes is only acceptable when relevant regulations can restrict the freedom of movement of revenues, dividends, interest rates, concession fees and capital between EU countries. Therefore, the key elements of the system of direct taxes cannot be subject to harmonization. The requirement for the unanimity of opinion also creates difficulties.

With regard to the above-mentioned restrictions, harmonization primarily relates to corporate income. Legal entities carrying out economic activity internationally have an impact on the exchange of goods and services, as well as capital between the states. Since personal income has a predominantly local impact on the operation of markets, the harmonization of personal income tax relates solely to the double taxation of persons operating in the form of a small cross-border movement between the EU Member States. In the EU, personal income tax is somewhat differentiated both in terms of the determining of a tax base and a tax rate. The tax base differentiation relates to different interpretations of income sources, different tax levels and benefits, which in their own turn are subject to frequent and strong fluctuations. The majority of countries apply a tax-free quota, which corresponds to a biological minimum. Strong differentiations of fiscal encumbrances may cause the emigration of job seekers, although we should emphasise that in the case of Poland and the majority of new Member States, the pay gap plays a greater role. In the context of present or future tensions in the labor market of the EU associated with the ageing of society, substantial

differentiations of personal income tax become a source of opposition towards he harmonization of this tax and encourage continuing tax competition. Taxation problems of persons changing their place of employment and location between different countries are based upon the conditions for avoiding double taxation according to arrangements between individual states. High differentiations of corporate income tax represent a much more serious problem in terms of unfair competition. Although in 1995—2007, there was an explicit tendency towards CIT reduction, there are still various secondary scales of this tax. Low corporate income tax rates apply in Cyprus — 10 %, Ireland — 12.5 %, Lithuania and Latvia — 15 %. The highest rates of corporate income tax are in Germany — 38.7 %, Italy — 37.3 %, France and Belgium — 34 %, and Spain — 32.5 %.

With regard to CIT harmonization, two directives and one convention have been approved and signed. The directives pertain to the harmonization of mergers, divisions, transfers of assets and exchange of shares concerning various companies. Possible excesses of the value of assets resulting from the above-mentioned processes do not create grounds for the taxation of either companies or shareholders (Council Directive 90/434 of 23 July 1990). This solution is designed to simplify the restructuring utilized for improving the competitiveness of companies. The next element of the harmonization of corporate income taxes is the adoption of provisions establishing that the taxation of the dividends of international companies may not be more restrictive, than that of state companies. In practice, this means that if the share of a parent company in the capital of a subsidiary located on the territory of another Member State constitutes at least 25 %, income transferred by the subsidiary to the parent company is exempt from taxation. Council Directive 2003/49/EC of June 2003 establishes that the licensing relations arising between a parent company and its subsidiary are interpreted as a turnover of resources within an organization and must be exempt from taxation if the entity receiving the payment is located on the territory of the EU.

Conditions for the partial taxation of dividends and income for international companies were also regulated by a directive. There are two possible solutions: taxation of the company and refusal to tax the shareholders or, on the contrary, the company does not pay the tax on dividends paid to the shareholders and the tax liability is transferred to the shareholders or participants. Instead, local law regulates the taxation of dividends with regard to state enterprises. Irrespective of relevant efforts, CIT harmonization prospects are not optimistic. This arises from the fact that the largest Member States — France and Germany — have high

fiscal needs associated with large social expenditures. In this context, they seek CIT harmonization at a level of 30 %. On the other hand, countries with smaller social needs resist this, even if they have relatively high CIT rates, as for instance, the Netherlands, Austria or Sweden. The unification of the tax base would also be integral. This would reduce the tax burden on corporations.

Progress in the harmonization of personal income tax also does not seem possible in view of its fundamental significance for assuring social policy needs.

4.7.8. Conclusions

Guided by the experience in the sphere of fiscal regulations and harmonization undertakings associated with such regulations, we can formulate the following conclusions.

1. The Polish tax system is in line with the general taxation terms respected by the EU. Its principal property is the reduction of corporate income tax from 40 % to 19 % and the enhancement of the role of indirect taxes in assuring fiscal needs of the state. The Polish tax system is distinctive in that property taxes play a secondary role.

2. Undoubtedly, the fiscal policy of Poland and Ukraine should aim to create a competitive tax system. An investment-friendly tax system becomes one of the few economic trump cards facilitating the inflow of foreign investment.

3. Irrespective of the fact that government expenditure in Poland is similar to that of the old EU countries, it still remains too high and is a product of uncompetitive fiscal encumbrances.

4. Reduction, on a level reaching nearly half of GDP, which was typical of socialist countries, becomes a weighty factor of the suspension of development and renders real convergence impossible. Facts illustrate that only the richest countries under certain favorable circumstances can rely on such a high reduction level without damage to GDP dynamics.

5. With regard to another prospect, public prosperity is easier to achieve in an environment least burdened by taxes and regulations of a market economy. If fiscal needs of the state need to be high, it is recommended such needs are assured with the help of a maximally high corporate tax and, respectively, higher direct taxes.

6. Poland should be moving towards the maximum simplification of tax procedures, since all this relates to the reduction of revenues from taxation and the enhancement of the efficiency of the punitive function of taxation.

7. Forcing a linear tax on personal income in a country with high budgetary needs is not justified, since it complicates the assurance of fiscal justice and can contribute to the exacerbation of deeply rooted social inequalities.

8. A modern and effective fiscal policy should be moving towards the reduction and simplification of the tax system in order to improve labor conditions and especially the business environment. Such policy improves the country's image among potential investors. As possible instruments of enhancing economic competitiveness, reductions and simplifications should apply to income taxes, however in a manner enabling effective competition for the inflow of foreign capital. EU accession has had a significant impact on the development of the Polish tax system and primarily this related to indirect taxes, since they are subject to directives on the harmonization of taxes.

9. The taxation of farming remains an unresolved problem of the Polish tax system. An optimal system of farming taxation must correlate with the resolution of the problem of the KRUS insurance model, which has a specific nature. A significant share of people and business entities associated with agriculture are not subject to personal income tax or corporate income tax. This shows that personal income tax is not a universal tax.

10. Assessing the tax system, it is impossible to restrict oneself merely to tax law. One should also take due notice of the problem associated with the efficiency of the treasury apparatus and the need to tighten the tax system, both with regard to indirect taxes and corporate income taxes, particularly with regard to the problems related to the transfer of revenues to a tax haven. A possible reduction of the tax burden and a possible restoration of the balance of state funds will depend on progress in the reduction of the share of the shadow economy and tax evasion.

4.8. Mechanisms and Instruments for the Development of Human Capital and Innovation

4.8.1. Innovation as a Challenge for Development and the Modern Economy's Effectiveness Criterion

An increasing gap in development between the countries of Western Europe and the United States in the beginning of the 1970s oil crisis and the preservation of a 35 % level measured by GDP per capita in the following decades have directly contributed to the elaboration of

ambitious plans formulated in the Lisbon Strategy (LS) in 2000 to catch up with America by developing an economy based on knowledge and concurrently assuring social and economic cohesion. Following a series of efforts to implement this strategy over a number of years and amendments made to the LS (in 2005 and 2008), the fundamentals of the LS as an instrument of European policy in the sphere of human capital, innovation and social and economic cohesion were subject to criticism. The criticism does not pertain to the role of innovation as a factor for the competitiveness of businesses, national economies and regions, but rather relates to the instruments, mechanisms and institutions utilized for strategy implementation.

Innovation means the ability to create or seek new knowledge-based decisions, to adapt such decisions to specific environments (a family, household, business, region or country), to implement and then disseminate it. The innovation perceived in this manner is a component of human capital. Without a relevant quality of human capital aimed at creativity, activity and, thus, innovations, which permits the assurance of business interests, it is impossible to eliminate the gap in economic development and catch up with transformations in the operation of the markets, states, businesses, persons and entire societies. Such specific features of human capital represent a key precondition for enhancing the role of innovation and preserving innovation as a fundamental developmental challenge, as well as a criterion for assessing the effectiveness of an economic system built on an economy based on knowledge.

There are various reasons to pay attention to innovation as a competitive factor. The reasons emerge from the dualistic nature of innovation, which manifests itself in various forms. Innovation as a resource associated with other factors initially acts as an expenditure determinant in each organization (firm). Ultimately, it is a reflection of the efficient activity of an organization and the economy as a whole. Such dual role of innovation as a factor of expenditures and effects illustrates the need to introduce innovation as a criterion for assessing the effectiveness of economic systems. The use of the innovation criterion in the development of an international ranking of individual countries and their similarity to rankings based upon GDP per capita seems practical, as it is based upon the feasibility of the formulated postulate about innovation being a criterion of efficiency (the attaining of goals) and effectiveness (the extent of resources utilization) of economic systems.

Overall, innovation, co-existing with other factors, is of a positive synergetic nature in the context of competition. Even its name contains an element of novelty and changes. Its dynamic and creative nature

corresponds to the increasing turbulence of an environment, the development-related errors of which can only be corrected by the utilization of the basic mechanisms of the development of innovation-based competitiveness via the introduction of industrial, technological, and managerial innovations.

Innovations are predominantly defined descriptively on the basis of a sample provided by a forerunner of the innovation theory (Schumpeter J. A., 1960), who identified cases which were later recognised as innovations. In light of research and technology papers at the turn of the century and the condition of the environment and human status in society at the beginning of the 21st century, the need arose to develop approaches to the essence of innovation. In our opinion, which is quite proper from the perspective of the present, the following definition seems to be the most appropriate: innovation is a change that has been introduced and is generating defined benefits (economic, public, environmental, etc.), with the aggregate of such benefits having a positive value. The above-given definition consists of three elements: change, introduction and aggregate benefit for all aspects of human life.

The change indicates the replacement of a previously existing state of affairs with a new one and means the introduction of something new in any sphere of human life. Therefore, it can relate to every sphere of human life, not only economic. Such outlook implies a broad range of opportunities to influence the development of innovation. Before a person achieves professional maturity perceived as an active participation in economic activities, he or she can train themselves to introduce innovations to their relevant activities. However, changes cannot remain conceptual. The best, most original concept to replace something that already exists with something new, which, nonetheless, has not been implemented, cannot in principle be referred to as an innovation. Five-year plans utilized in the economies of the former Soviet bloc were also abundant in ideas on the modernization of production. The mechanism of ineffective bargaining typical of hierarchical centralised coercive-distributive coordination virtually eliminated innovation on the microeconomic level.

Introduction is a required structural element of innovation, although insufficient for innovation to appear. The total value of benefit constitutes a criterion of a required and sufficient condition. The above does not concern economic benefits solely, since they do not assure full usefulness as perceived in the theory of personal and public wellbeing. Making a stake solely on economic effects and sometimes making fetish out of economic effects, reveals aspirations to gain personal advantages (for instance, in business) in relation to others and could lead to social

inequalities. The neglect of environmental, public, genetic and similar consequences is evidence of the irresponsibility of business, including the irresponsibility of an individual, a company or business at large (Promoting..., 2001).

Thus, we should emphasise that the added value of the benefit, factoring in all aspects of human life, gives rise to the recognition of a change being introduced by innovation. The rejection of benefits (as a structural element of innovations) creates a situation whereby, delivering microeconomic benefits, an introduced change may concurrently result in an adverse external effects, for instance, in the ecosphere, social capital, human biological potential, etc. Identifying various benefits, including cultural and spiritual, is of paramount importance, since innovations are traditionally associated exclusively with technical aspects and economic benefits.

Innovations are simultaneously a product and a medium of knowledge perceived as a factor of production, a component of welfare, a stimulator of development, a subject of turnover, an instrument of competition or, finally, an instrument for creating or mastering new knowledge (Whitley, 2008).

Economists have always been aware of the important role of knowledge in economic processes. However, the majority of economists interpreted the subject matter of knowledge as too risky to deal with. Until the television and information revolution, knowledge as an economic resource was perceived as an element that supplemented the traditional pool of production factors. At the current stage, knowledge has become the most important endogenous factor of production, making an essential contribution to production growth and expanding the boundaries for well-balanced growth (Romer, 1986).

The approach of knowledge as a component of welfare is indicative of the creation of the basis of material wealth from intangible knowledge and the creation of the wealth of individuals, public groups and peoples. The experience of leading countries in the development of economy based on knowledge validates Drucker's thesis that information and knowledge are principal generators of wealth, since it is no longer possible to raise great profits from the production and transfer of assets or control over monetary resources (Drucker, 1999 : 149). A revolution in information and telecommunications along with liberalization make information and knowledge the key generators of wealth. In the context of intense competition on open markets, particularly with transnational corporations (TNCs), being successful on the global market is impossible without applicable knowledge and comprehensive, accurate and timely information (Stiglitz, 1999).

For any case of an individual or an organization, only applicable knowledge, i.e. knowledge that produces benefits for consumers, can become a tool of competition. If knowledge is externalized in key competences, it can be a key source and often the sole source of a comparative advantage. This happens since in the modern economy one deals with an extremely dynamic expansion of productions based upon human intellectual potential. The dramatic economic growth of some countries producing raw materials does not contradict the above-mentioned either. The exhaustion of non-renewable resources and the development of China and India accelerated by an incredible expansion would be another argument in favor of strategies based upon the innovation and acceleration of the economic dynamics of the ICT sector. Human capital development and high technologies are the only hope to tackle the energy crisis, problems associated with famine and poverty, as well as a high mortality rate. One should not be of an opinion that this is only particularly relevant to Ukraine, Poland and countries undersupplied with the most efficient energy carrier resources.

One of the functional aspects of knowledge is its role as a tool for creating or gaining new knowledge. This is valid for the following: a tool capable of self-improvement resulting from the utilization of such tool becomes impeccable to the extent that available knowledge is varied and profound. This is a phenomenal property inherent to no other resource. However, a report developed by the OECD (OECD, 2007) suggests that we have not yet developed the ability to utilize knowledge systematically for creating new knowledge. This adds significance to the postulate about creating intellectual capital, i.e. accumulating knowledge, making knowledge applicable and beneficial for its owners. Knowledge is a construction material for intellectual capital, and all its components exist owing to some type of knowledge (including, patents, innovation potential, client loyalty, reputation, willingness to act, engagement, organisational culture, etc.), since it originates in the human mind that makes the application of knowledge possible and profitable. This also leads us to the definition of intellectual capital, since one reckons that certain intangible assets, which are often hard to determine, but must be associated with knowledge or with the results of knowledge utilization, enhance benefits on a considerably larger scale than do traditional types of capital (for instance, tangible or financial assets).

Integrated knowledge is contained in the human mind in the form of ideas, notions, impressions, intuition, opinions, concepts, beliefs, and intentions, as well as in various mediums, such as documents, norms,

procedures, processes and practices. However, it can only be articulated and utilized thanks to people, who may build their capital by utilizing knowledge and make such capital intellectual. People can also squander knowledge, i.e. fail to utilize their knowledge. To protect the public and the economy from such situations, one needs to effectively manage the processes of knowledge production, dissemination, and utilization. There is a need for comprehensive systems for creating, gaining, transforming and accumulating knowledge based upon decisions pertaining to the proposal of knowledge resources; functional knowledge banks, which give access to knowledge and forward required information; skills to master, utilize and apply available knowledge, as well as relevant associated information and communications technologies.

The application of knowledge in various spheres of human activity and the availability of knowledge in various functions are possible due to information and telecommunication technologies. Modern economic theories have accepted a thesis about the expansion of a knowledge-based economy, since this type of economy has recently emerged as an important branch of theoretical thought and political activities on a global, continental, national, and regional scale. The eEurope and ePolska programs define knowledge economy as a new model of economy the operation of which relies on a maximally exhaustive use of knowledge resources and innovations and upon general access to information. We are referring to the contribution of businesses to the enhancing of national wealth, i.e. a contribution that depends on business performance. We should emphasise that economy of knowledge is a model envisaging that knowledge represents a factor of having a competitive advantage for the majority of businesses.

We may only have the most developed economies in mind as we talk about economy of knowledge. Less developed countries may not rely on their economies becoming knowledge-based under the influence of market forces. The creating of the economy of knowledge requires market assistance at the macroeconomic, local and global levels through the arrangement of an institutional framework, tools and favorable mechanisms for innovation and human capital utilization in the process of creating a competitive regime and a friendly environment for the harmonious development of all spheres of human life. Thus, a special role in this process is assigned to science, education, and technology, which represent unique pillars of the economy of knowledge and are reflected in research, which contributes to the formation of the statistical effects of the sphere of qualitative social and economic changes.

4.8.2. Mechanisms for Coordinating Innovation Activities Pursued by Business Entities

A market mechanism, regardless of all its flaws, remains the best method to organize economic activities (Woźniak, 2004) and, therefore, market mechanisms for creating human capital and innovation should be prioritized.

Prices that developed independently in the process of supplier and consumer interaction are the essential method of coordinating actions that enhances economic effectiveness in line with market rules. The effectiveness of the market coordination of transactions is also conditional upon clarified ownership rights, impeccable information, possible safeguards from risks and uncertainties. The above-mentioned purpose requires that the state guarantees the free disposal of capital and labor, freedom to enter into contracts, and the receipt of signals.

At the same time, as has been proved, and as the author of this section maintains, the market as a mechanism reacts to human egoism expressed in the motivation for individual profits as a driving force of personal and public welfare, and concurrently is a mechanism for the expansion of global threats. To restrict such threats, one needs to specify the new role of the state and a new international economic regime as related to technological issues and the diffusion of innovations reducing global threats.

Within the framework of market coordination, *ex ante* and *ex post* costs always appear in transactions. *Ex ante* costs are associated with receiving and processing information, entering into an agreement, and negotiations terms and conditions to minimize transaction risks. *Ex post* costs are instead related to the control over activities, repeated discussions, disputes, and implementation costs. Transaction costs cover both internal business transactions based upon hierarchical relations and transactions between autonomous firms (in the market) (Williamson, 1985).

However, the transfer of coordination to a firm (the hierarchical system) does not always have an impact on the reduction of transaction costs. If costs associated with market coordination or prices proved smaller or equal to management costs, there would be no economic justification for creating firms and should such firms emerge, they would not exist long. According to the rules for calculating alternative costs, the optimal marginal transaction cost coordinated internally is at a point where the cost of an additional transaction executed internally is equal to the cost of such transaction executed externally through the market mechanism or by another entrepreneur who is more effective, i.e. will have smaller business management costs (Coase, 1937).

Referring to positive aspects of hierarchical relations, we do not diminish numerous adverse effects, particularly in the event of the abuse

of power, i.e. excessive bureaucracy, which makes any initiative impossible. However, the introduction of decentralization in operating firms may cause new problems related to the coordination of activities. The replacement of hierarchical control with market relations is not an acceptable solution, if this generates additional transaction costs. One should also not forget that an enterprise, as a specialized management structure, can influence the duration of relations in order to prevent the weakening of such relations under the pressure of a spontaneous contraction in the market.

The issues of maintaining relations durable and reducing transaction costs signal a need for coordinating activities in a different manner. Furthermore, progressing globalization and high technological developments permit the assumption that great hierarchical corporations will be replaced with a new, less formalized, self-organized form of coordination (Fukuyama, 2000), specifically with a network. A public network represents moral relations of trust within a group of individuals sharing informal norms or values going beyond the limits of those required for executing standard market transactions (Fukuyama, 2000). This new form of cooperation interpreted as an intermediary between traditional markets and hierarchies must illustrate the typical properties of a new method of actions coordination and market system operation. Such properties emerge partially from a positive experience and partially from the experience of hierarchical structures, however, are replete with new elements awaited by the players in an increasingly complicated, information-saturated economic life[35].

In relation to the determination of connections in the network of norms and values categories, an economic exchange within such network is the result of such engagement, i.e. the internalization of values and norms to one's own benefit. On the other hand, market transactions can also exist between anonymous parties. It should be noted that this is currently the case, since it is facilitated by globalization. While previously, the function of conflict prevention was assigned to firms, the role is currently attributed to networks, for instance, clusters, which eliminate problems associated with a lack of interaction, a lack of coordination and insufficient differentiation of interrelations with the help

[35] Fukuyama believed that hierarchical structures would remain, as previously, an integral part of the process for coordinating action due to three circumstances. First of all, the emergence and operation of a network requires public capital and if this requirement is not fulfilled, the hierarchy remains the only possible form of regulation. Secondly, the hierarchy is sometimes functionally necessary to attain institutional goals. Thirdly, people, by their nature, like being organized hierarchically, or in other words, people at the top of the hierarchy feed on respect arising from their social status even more than they feed on money (Fukuyama, 2000).

of the following adopted provision: competitiveness is extraneous, while cooperation and partnership exist within the cluster.

National innovation systems (NISs), which may utilize clusters as a pro-innovation tool, also have a networking nature. NISs, as institutional systems based upon a coordination model, are tailored to develop innovation and a highly technological economy and constitute a basis for the development of new potential for economic development in many developed countries. Institutions facilitating cooperation within the framework of NISs and assuring a relevant direction of the coordination of economic processes facilitate the development of innovations (Grosse, 2007).

Networks as an economic coordination structure, for instance in the form of NISs or clusters, are only beginning to spread in less developed countries. Instead, being interpenetrating, various networks of other structures have long been in existence. A good example of network penetration could be the Internet or a public network in industry clusters. The networks that gain a critical mass, namely a relevant number of firms and institutions required for assuring an agglomeration effect and being exceptionally successful in competition in individual activities, have a powerful impact on virtually any national, regional, and local economy, as well as on a large city economy, primarily in developed countries (Porter, 2001 : 246). With respect to the American economy, we can talk about the emergence of future layers of networks, as new clusters of clusters. New partially clustered structures, overlapping each other, are emerging in Poland. The idea of cluster initiatives also exists in Ukraine (Bakuszwicz, 2008). Network partnership and cooperation promote synergy effects; however, assuring similar effects within the limits of other structures is complicated, since individual entities do not have sufficient competences and other resources for the independent management of system coordination processes.

In addition to clusters being innovation-oriented, innovation activities can and will be part of specific hybrid structures for the coordination of actions and processes. It is in hybrid structures created from the elements of market, hierarchical and network coordination that the market mechanism plays and will play a leading role. Therefore, such structures are efficient with regard to innovation to the extent that a competitive regime is developed. With accession to the EU, Poland approved and borrowed the principle of the freedom of economic activities along with the entirety of hierarchical regulations (within the limits of central strategic regulation). However, due to Ukraine lagging behind in disseminating a market basis for the operation of its economy, network structures have to operate as part of underdeveloped markets. This must have consequences in the form of additional transactional costs.

A number of factors affect the efficiency of coordination mechanisms, perceived as the effective launching of processes for achieving specific goals. The internal cohesion of various tools operating by the logic of market mechanisms is of fundamental significance. However, one should mention that a market is self-regulatory. However, network structures can also spontaneously react to the elimination of non-cohesion. However, hierarchical structures with coordination implemented by the state run a high risk of lacking internal cohesion and, particularly, cohesion with the logic of markets operation. This implies that market instruments should only be utilized if markets fail. Furthermore, pursuing goals other than market goals may require support with the help of central hierarchical coordination. Since human capital and innovation possess the features of public property, their development requires support with the help of hierarchical coordination at the macroeconomic level as well. From this perspective, network structures are most suitable for creating innovation.

4.8.3. Development of Human Capital and Innovation in the Light of Knowledge-based Economy

The World Bank's Knowledge Assessment Methodology (KAM) developed in 1999 as part of the Knowledge for Development Program (K4D) represents an interesting attempt at interpreting quantitative changes in human capital and innovation as qualitative factors of social and economic development. The Knowledge Economy Index (KEI) is now determined for 140 countries (KAM, 2008)[36]. The index demonstrates a 15 % gap between Poland and Western Europe and a gap close to 17 % between Poland and the United States in terms of knowledge economy (KE). Meanwhile, the level of the identification of KE development in Ukraine is slightly lower than that in Russia and significantly lower than that in Poland (Figure 4.8). Since the gap in KE development between Western Europe[37] and the United States and these two counties is close to 36 % and 40 % respectively, Russia is obviously not a good example of KE development for Ukraine.

[36] To allow for a cross-country comparison, data is available on partial values normalized relative to an average variable calculated for all countries included in the KAM statistics. The methodology also uses the term of «an actual index», namely a variable produced following the calculation of its past value determined for the year of the publication of a relevant KAM report, for instance for the year t_0 = 1995 according to the current value for the year t_{0+n} = 2008.

[37] In the KAM procedure, Germany, France, Great Britain, and Italy are viewed separately, while the countries of Western Europe include other states of the EU-15, such as Cyprus, Iceland, Norway, and Switzerland.

Guided by Figure 4.8, which contains individual groups of partial KEI variables, it is possible to formulate the following conclusions about the sources of KE development.

1. In the sphere of education and literacy in the reported period, both Ukraine and Poland are characterized by high indicators approaching the model level.
2. Ukraine has reached major progress in the restriction of tariff barriers, which resulted in a rather small gap between Ukraine and Poland, which essentially achieved a model level in this sphere (in connection with its membership in the WTO and the OECD, as well as accession to the EU).
3. Unlike Poland, Ukraine has not reached essential progress in the improvement of the regulation and quality of court decisions, even though in 1995 Poland did not show essential improvement in this sphere either.
4. Poland and Ukraine are separated by a significant and differentiated gap in the development of an information society and innovation, with Poland taking the lead.

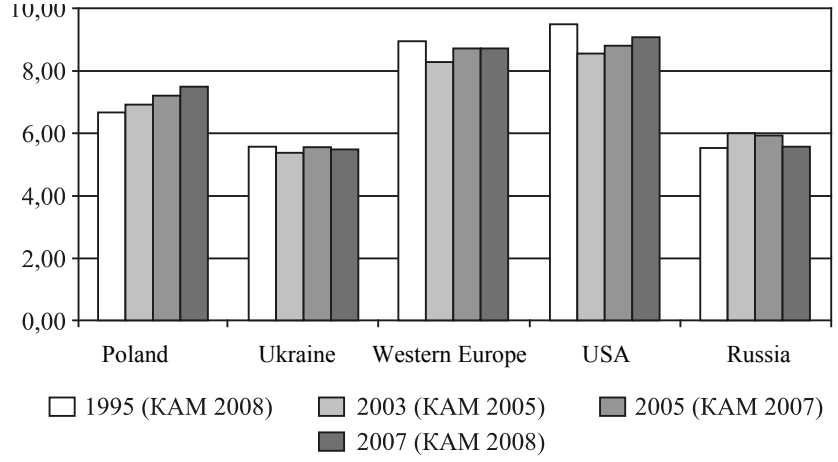

Figure 4.8 KEI Changes: Cross-Country Comparison

Note. The methodology envisages the updating of the basis for comparison, i.e. the data for 1995, for future assessment of the progress in KE development, which is illustrated by the first three columns of the Figure.

Calculated on the basis of the following data: KAM 2005, KAM 2007, and KAM 2008

One should not forget that various economic issues inherited from the preceding system continue to affect Ukraine's lagging behind other countries in KE development. Such legacy includes restricted capacities

to introduce new technologies from the West, a lack of resolute market reforms prior to the Orange Revolution, structural deformations emerging from the coercive function of the state, which the government failed to eliminate while implementing a pro-market policy for a number of years. Big problems were also associated with internal and external macroeconomic irregularities in the final phase of the operation of the preceding system. The existence of powerful pressure groups with a particularly negative attitude towards pro-market transformations could become an essential obstacle to high-quality structural changes, since the implementation of drastic economic reforms requires political will, as well as determination and courage from others, not just the government. Populism and the pretensions of a post-soviet society have an equally adverse effect. The existence of the largest shadow economy in the world does not facilitate the additional expansion of KE in Ukraine, even though other results of positive changes in the Ukrainian economy may be concealed in the shadow sector to a great extent.

The stagnation of KE development in Ukraine and a prolonged, though slow growth of the KEI in Poland demonstrate that a gap in KE development between the two states is increasing.

KEI covers 84 measures grouped in four so-called KE pillars, specifically: education and human capital, innovation illustrated by resources and innovation indexes, information and communications technologies, and economic incentive and institutional regime. It is possible to use KAM variables to present the sources of KE development and an increasing gap in development. Due to the relative interpretation of KEI values (for instance, calculated per thousand people), one can exclude any statistical deviation related to the size of a given country.

The first three KE pillars are taken from the Knowledge Assessment Methodology (KAM) in the form of the Knowledge Index (KI), since they reflect a qualitative aspect of human resources. KI permits us to make conclusions about the level of development of intellectual capital, since all KE measures are indirectly or directly related to this resource. KI also permits the assessment of the utilization of knowledge for economic growth on the basis of GDP changes. Western Europe selected knowledge development as a model, since the development of human capital and human resources constitutes the key priority of strategic activities of the EU Member States. Nonetheless, Sweden and Denmark demonstrate the highest KI values on the global level. A large gap between KI values for individual countries proves that even though the *a. c.* of the EU and priorities of the Lisbon Strategy are justified, they still do not guarantee an automatic advancement in KE development or high innovation indexes (Figure 4.9).

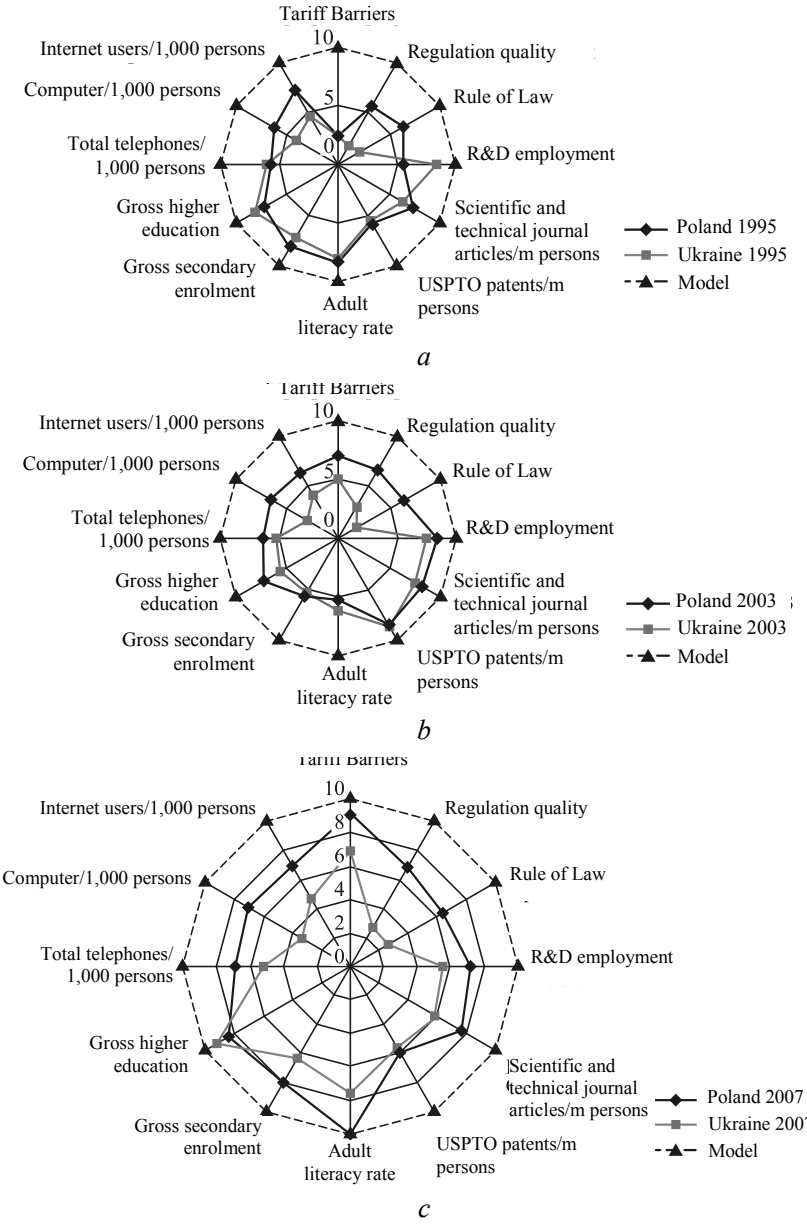

Figure 4.9 Gap in the Development between Poland and Ukraine in 1995—2007 Measured by Basic KEI

Source: KAM 2003, KAM 2007, and KAM 2008

Table 4.25 implies that tendencies in the sphere of KI changes remain similar to those related to KEI[38] for groups of selected countries.

Table 4.25

CHANGE IN KI INDEX IN INDIVIDUAL COUNTRIES IN 1995—2007

Source	Year	Poland	Ukraine	Western Europe	USA	Russia
KAM 2008	1995	6.98	6.44	9.01	9.61	6.57
KAM 2005	2003	7.02	6.04	8.48	8.80	7.07
KAM 2007	2005	7.29	5.88	8.72	8.91	6.92
KAM 2008	2007	7.56	5.94	8.72	9.09	6.92

Source: KAM 2003, KAM 2007, and KAM 2008

Ukraine has the lowest KI value, approaching that of Romania and Bulgaria (Figure 4.10). Poland's KI value is much higher than that of Ukraine, but lower than that of EU-15 countries, apart from Portugal and Greece. Poland is also less advanced in human capital development than Slovenia, Estonia, the Czech Republic, and Hungary. In terms of knowledge development, the EU-15 is 10 % ahead of Poland and 30 % ahead of Ukraine, while Ukraine is 20 % behind Poland.

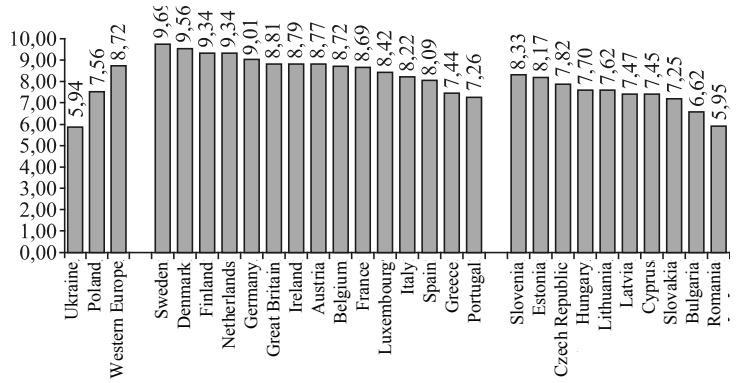

Figure 4.10 Knowledge Development in Poland and Ukraine as Compared to the EU-27 according to Actual Normalized KI Values (relative to the average EU-27 value)

Note. KAM does not provide data for Malta

Source: KAM 2003, KAM 2007 and KAM 2008

[38] The gap is illustrated by economic and political institutional conditionalities, which will be discussed later on in the section.

KI, as a derivative of the measures of innovation, education and information and communications technologies in the researched countries, only demonstrates sustained growth in Poland (Table 4.26).

Table 4.26

KNOWLEDGE INDEX COMPONENTS AND CHANGE OVER TIME IN SOME COUNTRIES ACCORDING TO KAM, 2008

Selected countries	KI			Innovation			Education			ICT		
	1995	Recent	*Change*	1995	Recent	*Change*	1995	Recent	*Change*	1995	Recent	*Change*
Poland	**6.98**	**7.56**	***0.58***	**6.08**	**6.91**	***0.83***	**8.14**	**8.82**	***0.68***	**6.71**	**6.95**	***0.24***
Ukraine	**6.44**	**5.94**	***–0.5***	**6.13**	**5.76**	***–0.37***	**8.16**	**7.70**	***–0.46***	**5.01**	**4.37**	***–0.64***
Western Europe	9.01	8.72	*–0.29*	9.21	9.23	*0.02*	8.6	8.03	*–0.57*	9.22	8.88	*–0.34*
USA	9.61	9.09	*–0.52*	9.58	9.45	*–0.13*	9.42	8.79	*–0.63*	9.83	9.02	*–0.81*
Russia	6.57	6.92	*0.35*	5.61	6.88	*1.27*	8.04	7.62	*–0.42*	6.05	6.26	*0.21*

Source: KAM 2003, KAM 2007, and KAM 2008

Among the mentioned countries, the United States is leading in every dimension. At the same time, the countries of Western Europe are significantly ahead of Poland and Ukraine in the sphere of innovation and ICT development. However, the education index for Poland (8.82) does indeed exceed that of Western Europe (8.03). This is primarily a result of the complete elimination of illiteracy, a high indicator of education, especially on the academic high school level. In Ukraine, the synthetic index of education is also high (Table 4.27).

The assessments of individual aspects of human capital development in the countries of Western Europe are more comparable, while in Ukraine variables range from 1.99 (seats in parliament held by women) to 9.28 (females in the workforce) and an average variable equals 8.36 (public spending on education).

Innovation resources reflected by variables create a national system of innovations (Table 4.28), are indicative of the possibility of including a given country in the global knowledge resource, its assimilation and adjustment to local needs, as well as the creation of new technologies. The innovation potential of Ukraine and Poland represented synthetically and by partial indexes (Table 4.28) illustrates that there is a significant lagging behind Western Europe in terms of development. For Ukraine, the distance is even greater.

Table 4.27

HUMAN CAPITAL* IN POLAND AND UKRAINE AS COMPARED TO THAT OF WESTERN EUROPE ACCORDING TO KAM, 2008

No.	Variable	Poland		Ukraine		Western Europe	
		Actual	Normalized	Actual	Normalized	Actual	Normalized
Education		×	8.82	×	7.70	×	8.08
1	Adult literacy level	10.00	10.00	99.40	7.66	98.96	7.06
2	Average years of school	9.84	8.90	×	×	9.25	7.65
3	Level of secondary school enrolment rate	99.55	8.12	91.80	6.39	106.80	8.98
4	Level of higher education enrolment rate	64.07	8.33	72.78	9.05	62.25	8.06
5	Life expectancy	75.00	7.00	68.00	3.36	79.55	9.04
6	Internet access in schools	3.90	6.37	3.20	4.35	5.43	8.51
7	Public spending on education, as a % of GDP	5.40	6.91	6.40	8.36	6.19	8.00
8	Professional and technical workers as a % of the workforce	25.51	7.04	25.34	6.79	29.43	8.33
9	Achievement in math	n/a	n/a	n/a	n/a	502.00	6.12
10	Achievement in sciences	n/a	n/a	n/a	n/a	507.67	5.41
11	Quality of science and math education	4.50	6.61	4.60	6.94	4.98	7.80
12	Extent of personnel training	3.70	4.92	3.30	2.82	5.05	8.58
13	Quality of management schools	4.40	6.45	3.70	3.71	5.19	8.19
14	Brain drain	3.00	4.27	2.70	2.98	4.67	n/a
15	Gender inequality index	0.87	7.59	0.79	5.41	0.94	8.95
16	Females in the workforce (% of total workforce)	45.80	7.17	48.90	9.28	45.14	6.59
17	Seats in parliament held by women (as a % of the total)	19.10	6.10	8.70	1.99	29.33	8.68
18	School enrolment, secondary, female	97.30	7.50	84.80	4.92	108.33	9.13
19	School enrolment, higher, female	71.60	8.49	75.40	8.89	68.53	8.06

Notes: * Please go to the Knowledge Assessment Methodology at www.worldbank.org/kam for detailed description of indexes

Source: KAM 2003, KAM 2007, and KAM 2008

Table 4.28

INNOVATION RESOURCES PRESENTED VIA KAM INNOVATION PILLAR, 2008

No.	Variable	Poland		Ukraine		Western Europe	
		Actual	Normalized	Actual	Normalized	Actual	Normalized
Innovation		×	6.91	×	5.76	×	9.23
1	FDI outflows as a % of GDP	0.30	6.24	0.10	5.20	31.46	9.96
2	FDI inflows as a % of GDP	3.50	5.79	3.40	5.56	28.63	9.96
3	Royalty and license fee payments (USD m)	1,324.0	8.28	421.00	7.24	2,496.34	9.02
4	Royalty and license fee payments (USD/m persons)	34.74	7.50	8.94	6.03	479.51	9.87
5	Royalty and license fee receipts (USD m)	38.00	6.34	22.00	5.98	981.48	8.96
6	Royalty and license fee receipts (USD/m persons)	1.00	5.54	0.47	4.91	165.66	9.51
7	Royalty payments and receipts (USD m)	1,362.00	7.95	443.00	6.88	3,477.82	8.97
8	Royalty payments and receipts (USD/m persons)	35.74	7.12	9.41	5.59	645.17	9.77
9	Science and technology enrolment ratio	19.98	3.51	26.23	7.45	23.32	5.48
10	Science enrolment ratio	8.25	3.72	4.08	0.85	10.34	5.51
11	Researchers in R&D	62,162.2	8.33	85.211	8.78	28,676.2	7.50
12	Researchers in R&D /m persons	1,628.76	6.22	1,829.6	6.44	3,774.82	8.61
13	Total expenditure for R&D as a % of GDP	0.57	4.74	1.07	6.91	1.93	8.63
14	Trade of foreign goods as a % of GDP	48.10	6.85	53.60	7.46	54.40	7.58
15	University-company research collaboration (1—7)	3.20	5.97	3.10	5.08	4.49	8.35
16	Science and technology articles	6,844.00	8.63	2,105	7.34	5,704.00	8.47
17	Science and technology articles/m persons	179.32	7.70	44.69	5.97	634.44	8.97
18	Availability of venture capital (1—7)	3.60	6.69	3.20	5.89	7.48	8.67

Continuation of Table 4.28

No.	Variable	Poland		Ukraine		Western Europe	
		Actual	Normalized	Actual	Normalized	Actual	Normalized
19	Patents granted by USPTO	18.40	6.93	20.80	7.36	538.24	8.68
20	Patents granted by USPTO/m persons	0.48	5.93	0.43	5.71	77.64	8.95
21	High-tech exports as a % of manufactured exports	3.80	4.03	3.70	3.95	18.95	8.04
22	Private sector spending on R&D (1—7)	3.60	6.85	3.20	5.32	4.56	8.47
23	Firm-level technology absorption (1—7)	4.50	4.19	4.40	3.95	5.58	8.47
24	Existence of a production chain (1—7)	4.30	7.40	3.40	4.07	5.19	8.46

Source: KAM 2003, KAM 2007, and KAM 2008

R&D expenditure as a percentage of GDP represents a universally used measure of the innovation potential of a national economy. The Lisbon Strategy recognises R&D expenditure as a priority for the development of the economy of knowledge and the overtaking of the United States. According to this priority, in 2010, R&D must absorb 3 % of GDP.

In Ukraine, the variable exceeds 1 % of the GDP, as compared to close to 2 % in Western Europe. In Poland, the variable tended to diminish, but since 2005 has remained below a critical threshold of 0.57 % (Figure 4.11).

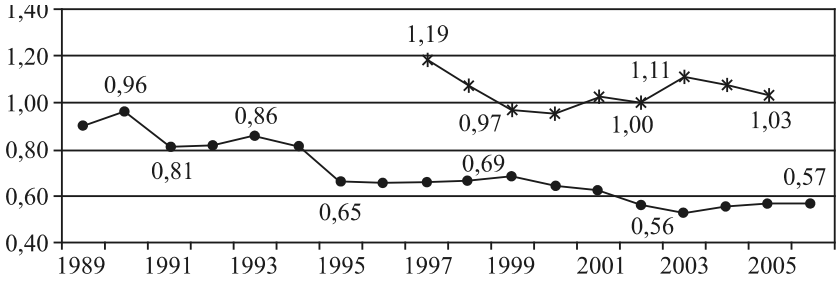

Figure 4.11 Share of R&D Expenditure in the GDP of Poland and Ukraine in 1989—2006

Source: Science and Technology in 2007, www.stat.gov.pl/dane_spol-gosp/prod_bud_inw/nauka_technika/2007/doc/ index.phd

International research proves that for the protection of the national economy in the face of an increasing technological gap, R&D expenditure must constitute no less than 2 % of GDP; though, Poland has not achieved this level since WWII. An insignificant share of R&D expenditure contradicts the pompous declarations of readiness to support KE development. Following accession to the EU, these issues became the focus of attention of the Development Strategy for 2007—2015 (Strategia..., 2006). According to the fundamentals of the strategy, the share of R&D in Poland's GDP only had to grow to the level of 2 % by 2015.

Information and communication technologies, particularly the degree of their dissemination and the pace of changes in the diffusion of new decisions constitute infrastructure support of human capital and innovation development (Table 4.29). With regard to the synthetic index of ICT diffusion, the gap between Poland and Western Europe is close to 30 %, while the gap between Ukraine and Poland is close to 60 %. This is because the majority of partial variables in Ukraine are significantly lower than relevant variables for Poland, except for households with television and daily newspapers per 1,000 people. In some cases, the differentiation of variables is significant, for instance, as related to the international Internet capacity and Internet users.

Table 4.29

DIFFUSION OF INFORMATION AND COMMUNICATION TECHNOLOGIES ACCORDING TO KAM 2008

No.	Variable	Poland		Ukraine		Western Europe		USA	
		Actual	Normalized	Actual	Normalized	Actual	Normalized	Actual	Normalized
ICT		×	6.95	×	4.37	×	8.88	×	9.02
1	Total telephones per 1,000 persons	1,073.5	6.86	621.60	5.29	1,542.2	9.25	1,286.3	7.93
2	Main telephone lines per 1,000 persons	309.30	7.12	255.90	6.26	525.02	8.96	606.00	9.64
3	Mobile phones per 1,000 persons	764.20	7.00	365.70	4.64	1,017.2	9.18	680.30	6.79
4	Computers per 1,000 persons	192.80	7.12	38.40	3.26	492.19	8.52	749.20	9.77
5	Households with a television (%)	90.70	5.58	97.30	8.33	97.70	8.55	97.80	8.62

Continuation of Table 4.29

No.	Variable	Poland		Ukraine		Western Europe		USA	
		Actual	Normalized	Actual	Normalized	Actual	Normalized	Actual	Normalized
6	Daily newspapers per 1,000 persons	102.00	6.16	175.00	7.91	289.69	9.01	196.00	8.14
8	International Internet capacity (bits per person)	559.95	6.84	17.16	3.46	10,003	9.60	3,306.4	8.68
9	Internet users per 1,000 persons	262.00	6.86	96.90	4.57	520.81	8.88	630.00	9.36
10	Fixed broadband internet access tariff (USD per month)	11.27	7.64	7.67	9.14	26.14	3.32	14.95	6.21
10	Availability of e-government services (1-7)	3.49	4.52	2.77	2.52	4.95	7.80	5.45	9.04
11	Companies' online service index (1-7)	4.20	6.86	3.20	2.80	4.93	8.22	5.50	9.15
12	ICT expenditure as a % of GDP	4.20	2.93	7.80	8.13	5.58	4.60	8.70	9.20

Source: KAM 2008

To accelerate the process of reducing the gap in the diffusion of information and communications technologies, Ukraine allocates close to 7.8 % of GDP, while Poland assigns less than 3 %.

Table 4.30 illustrates that relative to institutional infrastructure variables of the EU, Ukraine's economy is in an exceptionally unfavourable condition (– 0.47). However, we should note that flaws in this institutional infrastructure are inherent not only to backward economies, but also to developed economies (Italy: — 0.35; France: — 0.22; Sweden: — 0.13). Relative to the above mentioned, Poland's institutional regime is assessed as comparatively good (– 0.04).

Table 4.30

POLAND AND UKRAINE COMPARED TO EUROPEAN UNION MEMBER STATES

Rank	Country	KI	KEI	Hypothetical impact of institutional changes	Assessment of the institutional regime
35	Poland	7.56	7.52	–0.04	7.39
57	Ukraine	5.94	5.47	–0.47	4.06
13	Austria	8.77	8.90	0.13	9.30
16	Belgium	8.72	8.75	0.03	8.82
1	Denmark	9.56	9.58	0.02	9.66
3	Finland	9.34	9.37	0.03	9.47
20	France	8.69	8.47	– 0.22	7.82
38	Greece	7.44	7.35	– 0.09	7.08
25	Spain	8.09	8.21	0.12	8.58
4	The Netherlands	9.34	9.30	– 0.04	9.18
14	Ireland	8.79	8.90	0.11	9.23
18	Luxemburg	8.42	8.67	0.25	9.42
10	Germany	9.01	9.01	0.00	8.99
33	Portugal	7.26	7.56	0.30	8.44
2	Sweden	9.69	9.56	– 0.13	9.18
11	Great Britain	8.81	8.92	0.11	9.28
29	Italy	8.22	7.87	– 0.35	6.84
34	Cyprus	7.45	7.53	0.08	7.77
27	Czech Republic	7.82	7.92	0.10	8.23
23	Estonia	8.17	8.30	0.13	8.68
30	Lithuania	7.62	7.70	0.08	7.94
32	Latvia	7.47	7.61	0.14	8.04
36	Slovakia	7.25	7.44	0.19	7.99
24	Slovenia	8.33	8.27	– 0.06	8.11
28	Hungary	7.70	7.88	0.18	8.39
41	Bulgaria	6.62	6.72	0.10	7.01
45	Romania	5.95	6.18	0.23	6.87
	Western Europe	8.72	8.71	– 0.01	8.69

Source: KAM 2008

According to KAM, conclusions about the impact of institutional factors on economies' capacities to utilize knowledge in practice rely on the following:

- Economic regime variables, such as: gross capital formation as a percent of GDP, foreign trade as a percent of GDP, tariff and nontariff barriers, intellectual property protection, soundness of banks, export of goods and services as a percent of GDP, interest rate spread, intensity of local competition, domestic credit to private sector, cost to register a business, days to start a business, and cost to enforce a contract;
- Institutional regime variables illustrating the specific features of the operation of a state, such as regulatory quality, rule of law, government effectiveness, voice and accountability, political stability, control of corruption, and press freedom.

The data reflecting individual institutions is presented by actual and normalized variables on a scale of 0 to 10 relative to the comparison group (Table 4.31).

Table 4.31

ECONOMIC REGIME AND GOVERNANCE IN POLAND AND UKRAINE RELATIVE TO WESTERN EUROPE

No.	Variable and year	Poland		Ukraine		Western Europe	
		Actual	Normalized	Actual	Normalized	Actual	Normalized
Economic regime							
1	Gross capital formation as a % of GDP, 2002—2006	19.40	3.12	19.40	3.12	21.74	4.89
2	Foreign trade as a % of GDP, 2006	82.00	5.00	99.10	6.27	108.11	7.14
3	Tariff & nontariff barriers, 2008	86.00	9.11	82.20	7.04	85.36	8.30
4	Intellectual property protection (1—7), 2007	3.50	5.08	2.70	1.77	5.56	8.67
5	Soundness of banks (1—7), 2007	4.90	2.74	4.50	0.73	6.55	8.91
6	Export of goods and services as a % of GDP, 2006	40.60	5.29	48.20	6.59	56.16	7.57
7	Interest rate spread, 2006	4.00	7.65	7.60	3.22	3.23	8.48

Continuation of Table 4.31

No.	Variable and year	Poland		Ukraine		Western Europe	
		Actual	Normalized	Actual	Normalized	Actual	Normalized
8	Intensity of local competition, 2007	4.70	4.63	4.40	2.85	5.57	8.37
9	Domestic credit to private sector as a % of GDP, 2006	27.40	3.87	45.00	5.69	143.57	9.09
10	Cost to register a business as % of GNI Per Capita, 2008	21.20	4.44	7.80	6.89	4.99	7.80
11	Days to start a business, 2008	31.00	4.74	27.00	5.41	17.36	7.26
12	Cost to enforce a contract (% of debt), 2008	10.00	9.63	41.50	1.48	17.21	7.67
Governance							
1	Regulatory quality, 2006	0.64	6.79	– 0.47	2.71	1.43	8.89
2	Rule of law, 2006	0.25	6.29	– 0.72	2.43	1.60	8.89
3	Government effectiveness, 2006	0.49	6.71	– 0.57	2.79	1.66	9.04
4	Voice and accountability, 2006	0.95	7.79	– 0.11	4.79	1.46	9.25
5	Political stability, 2006	0.22	5.93	– 0.27	4.29	1.00	8.96
6	Control of corruption, 2006	0.14	6.14	– 0.67	2.57	1.77	8.96
7	Press freedom (1—100), 2007	22.0	7.71	53	4.29	14.60	9.25

Source: KAM 2008

We can notice the similarity of some variables, for instance, gross capital formation received a similarly poor ranking, though the variable for Western Europe is not very high (4.89). Soundness of banks in Ukraine ranks the lowest among economic institutions; it is lower than the bottom limit for the acceptable scale: 1—7 (1 — insolvent; 7 — generally healthy with sound balance sheets). Similarly, on a 1—7 scale, intellectual property protection ranks poorly, measured at 1.77. Costs to enforce a contract in Ukraine are equal to more than 40 % of debt, which

is four times more than the costs in Poland and nearly 2.5 times more than the costs in Western Europe.

Flaws in the sphere of institutional arrangements may present a sort of trap for development, which will not permit the utilization of potential deeply buried in intellectual capital, particularly in human capital, innovation, and ITC. EU membership alone does not constitute a guarantee that the EU *acquis communautaire* and common developments will eliminate the underdevelopment of the institutional infrastructure and numerous other problems inherited from the communist system. One should note that EU accession alone will ensure the convergence of economic growth and living standards with those existing in highly developed countries. Guaranteeing formal institutions related to the competition regime is the first necessity; however, this is insufficient for market efficiency. The norms should be internationalized in the rules of human thinking and human activities; however, this process of internalization is enduring and will continue for the lifetime of an entire generation. Poland has already experienced one-generation-long training to be functional in the context of open markets. Ukraine is only at the beginning of this training process; moreover, it is now operating in the context of an institutional infrastructure that is extremely non-corresponding to the requirements of effective markets.

4.8.4. Innovation Potential and its Results

The European Innovation Scoreboard (EIS) may be utilized to verify KAM assessments of economies that are advanced in terms of human capital and innovation development. EIS has been developed to identify impact tools within the framework of a social and economic policy of EU Member States, which permits the determination of the gap in development[39]. The EIS focuses on projecting the creation of human capital and innovation pursuant to the requirements and expectations of the EU Parliament.

The subsequent reports of the EIS verify Poland's low ranking based upon the Summary Innovation Index (SII)[40] (Drawing 4.12).

In 2007, Poland ranked sixth among 37 countries included in the latest EIS 2007. Poland's innovation performance compares to an average level of the EU-27 and that of Sweden, a European innovation leader, at 1:2 and 1:3 respectively.

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[39] In addition to EU countries, the analysis initially covers the United States, Japan, and Turkey; the recent seventh EIS report also presents analysis data for Australia, Canada, and Israel (*Sea EIS 2007*).

[40] The SII may range from 0 (highest innovation level) to 1 (lowest innovation level).

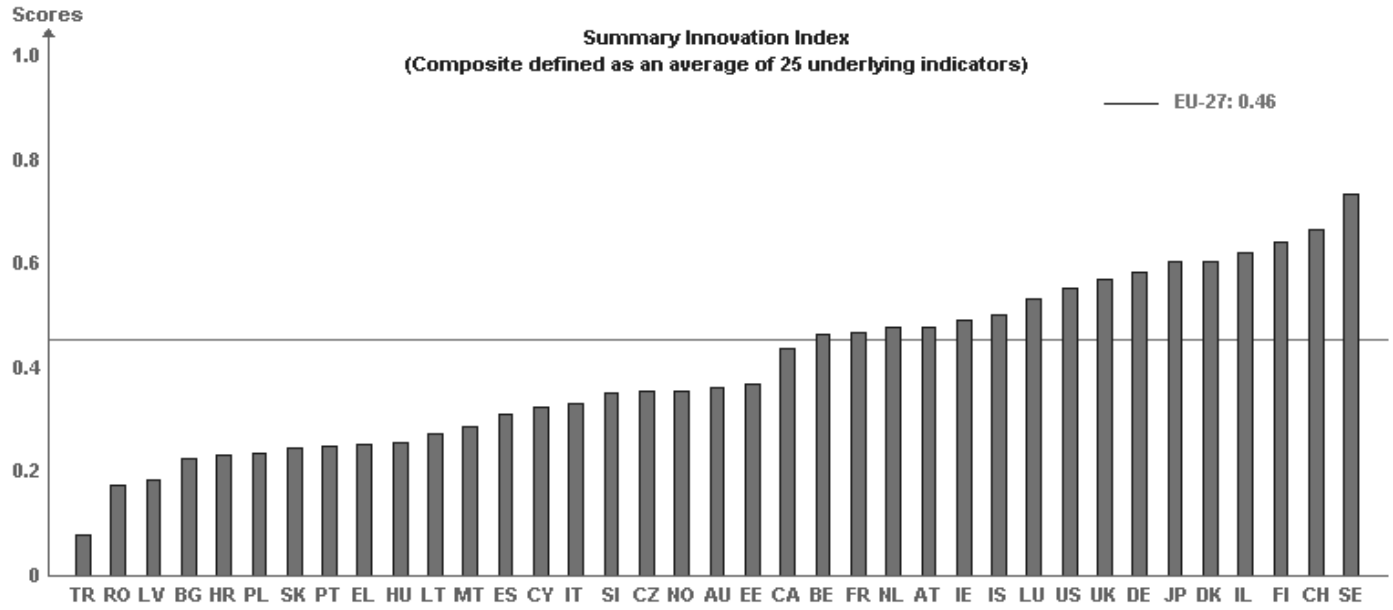

Figure 4.12 Gap between Poland's Innovation Index and an Average Index for the EU-27 and the USA

Source: Based on EIS 2007

One should emphasise that except for KE priorities in 2003—2007, the SII of European States ranking top in the table has diminished (Sweden, Switzerland, Finland, Denmark), while the index has grown for the new EU countries (Table 4.32).

Table 4.32

CHANGE OF SUMMARY INNOVATION INDEX FOR 2003—2007

Country	EIS 2007	EIS 2005	EIS 2003	2007 change 2005 = 100	2005 change 2003 = 100
Sweden (SE)	0.72	0.78	0.82	–0.06	–0.04
EU (EU-27)	**0.45**	**0.42***	**0.46****	**0.03**	**–0.04**
Estonia (EE)	0.37	0.35	0.35	0.02	0.00
Czech Republic (CZ)	0.36	0.33	0.32	0.03	0.01
Slovenia (CI)	0.35	0.34	0.32	0.01	0.02
Cyprus (CY)	0.33	0.30	0.29	0.03	0.01
Malta (MT)	0.29	0.28	0.27	0.01	0.01
Lithuania (LT)	0.27	0.24	0.23	0.03	0.01
Hungary (HU)	0.26	0.25	0.24	0.01	0.01
Slovakia (SK)	0.25	0.23	0.23	0.02	0.00
Poland (PL)	0.24	0.22	0.21	0.02	0.01
Bulgaria (BG)	0.23	0.20	0.20	0.03	0.00
Latvia (LV)	0.19	0.17	0.16	0.02	0.01
Romania (RO)	0.18	0.16	0.16	0.02	0.00

Note. Country ranking relies on 2007 results
* EU-25
** EU-15

Source: EIS 2007 and EIS 2

No major reshuffle has happened with regard to SII changes. There remains a tendency of the stabilizing of innovation performance for groups of countries selected by SII value, the pace of growth and an average value calculated for the EU-27.

The EIS-2007 based analysis illustrates that the process of reducing the gap in innovation performance of modest innovators among new EU Member States may last for decades, if current tendencies remain. Poland, regardless of the improvement of numerous individual measures, is envisaged to attain the European innovation average no sooner than in 18 years. The Czech Republic, included in the group of moderate innovators, Lithuania, in view of a rapid pace of changes, and Cyprus and Slovenia

could attain the European average of SII within 10 years. Estonia could have such innovation performance level even earlier.

Partial innovation indicators are grouped into the EIS as inputs interpreted as innovation potential and outputs. Three categories convey innovation potential: innovation drivers, knowledge creation, innovation and entrepreneurship, and knowledge application. The indicators of innovation performance and intellectual property protection measure outputs.

Innovation drivers measure structural conditions required for the creation of innovation potential. They are aimed at forming human capital, since only those who can utilize applicable knowledge can find their place in the information society, which may be facilitated by properly functioning education and higher education systems, the utilization of experience and continuous training. In education, the market mechanism requires comprehensive support associated with a variety of instruments. Such instruments include the following: a system of current and prospective education coordination; a labor market and cooperation of schools with businesses; flexible training systems teaching adjustment skills, creativity, and entrepreneurship; the associating of education with developing cooperation, honesty, and civic awareness; orientation towards the flexible adjustment to new challenges; readiness to life-long learning; entrepreneurship; and the development of systems thinking. Educational instruments are presented by indicators pertaining to all forms of secondary and higher education, science and engineering, and general education, both at school and through life-long learning, with the use of the Internet (Table 4.33).

Table 4.33

INPUT: INNOVATION DRIVERS

No.	Variable	Poland 2005	Poland	EU-27	USA	European leaders
			2007			
1.1	S&E (Science and Engineering) graduates	9.00	11.10	12.90	10.60	24.50 Ireland
1.2	Share of working-age population with higher education	15.60	17.90	23.00	39.00	35.10 Finland
1.3	Broadband channels	0.50	3.90	14.80	18.00	29.60 Denmark
1.4	Participation in life-long learning	5.50	4.70	9.60	x	29.60 Denmark
1.5	Secondary education attainment level	89.5	91.70	77.80	x	93.80 Croatia

Note: x — the data is unavailable or the provision of such data is inappropriate.

Source: EIS 2005 and EIS 2007

In education, Poland demonstrates improved indicators. Science and engineering education measured by the total number of graduates per 1,000 persons aged 20—29 lags behind that of Ireland, but exceeds that of the USA, and as early as in 2008 reached the European level. The share of working-age population with higher education per 100 persons aged 25—64 grew in 2007. However, it is still close to half of that of the USA. The broadband lines per 100 persons, the crucial role of the Internet in developing the innovation of Poland's economy, is the weakest indicator in this group of expenditures and even the eightfold growth of the 2007 level as compared to the 2005 level does not affect the assessment. Activity in the sphere of capacity-building measured by the total number of participants aged 25—64 in life-long learning (in a free form) per 100 persons is not much higher than half of the EU-27 average. Human capital resources measured by the share of population aged 20—24 with minimal secondary education is equal to 92 % in Poland, while Croatia's record level equals 94 %.

The measures of expenditure depicting major innovation factors reflect the innovation competencies of the population. The expenditures are believed to result in intended actions for innovation support. High indicators of education attainment in Poland are not supported by innovation results. This paradox emerges as the qualitative development of human capital lags behind the quantitative one. Negligence in post-socialist countries in education and science is a universally known and widely disputed fact. Education reforms initiated by the government and implemented through bureaucratic procedures generally prioritize changes of quantitative indicators and the growth of expenditure. So far, such reforms have not targeted the reflexive modernization of human capital. Thus, one cannot expect that such reforms will deliver outputs associated with the diffusion of innovation.

Knowledge creation is reflected in the EIS by spending. In other words, expenditures must create conditions for producing knowledge. Therefore, they are interpreted as a foundation for KE development. This gives the right to include such costs in the category of R&D expenditures, since they are associated with engaging both the state and the private sector in R&D funding. In addition, the creation of knowledge envisages the utilization of public resources (Table 4.34).

The engagement of the state in assuring innovation measured by the share of public funding for R&D in GDP in Poland considerably falls behind that of the EU, which, however, constantly behind the targets declared in the Lisbon Strategy, as has been mentioned earlier. Disturbingly, the public funding for R&D is below the critical threshold and, furthermore, has been recently decreasing, as previously. The

consequences of the above can be split into two groups. Resources are barely sufficient to cover the necessary costs of Poland's scientists. Furthermore, there are no effective stimuli for the private sector to increase the share of financial engagement.

Table 4.34

KNOWLEDGE CREATORS (INPUT DIMENSION)

No.	Variable	Poland 2005	Poland	EU-27	USA	European leaders
			2007			
2.1	Public R&D expenditures (% of GDP)	0.43	0.39	0.65	0.69	1,37 Iceland
2.2	Business R&D expenditures (% of GDP)	0.16	0.18	1.17	1.87	2,92 Sweden
2.3	Share of medium-high-tech and high-tech R&D (% of manufacturing R&D expenditures)	77.40	80.00	85.2	89.9	92,70 Sweden
2.4	Share of enterprises receiving public funding for innovation	0.70	3.10	9.0	n/a	39,3 Luxemburg

Source: EIS 2005 and EIS 2007

The share of medium-tech and high-tech R&D as a percent of manufacturing R&D expenditures adjusted by the indicator of the share of B + R in GDP illustrates that Poland barely assigns 0.4 % of GDP for high-tech, while the EU-27 and the United States allocate 1.6 % and 2.7 % respectively. Since government funding of innovation measured by the share of enterprises receiving public funding is insignificant in Poland, a gap in Poland's stimulation associated with innovation creation will grow inevitably and rapidly. Therefore, the key determinant factor of the reduction of the technological gap must be the diffusion of technologies with the help of FDI.

The indicators of entrepreneurship and innovation reflect primarily the effectiveness of instruments encouraging enterprises, especially small- and medium-sized enterprises (SMEs) to take financial efforts targeting innovation. Motivational tools designed to stimulate innovation must comprise both technical innovations (manufacturing and technological) and non-technical, so-called soft innovations, i.e. those available in the sphere of organization and management (Table 4.35).

Table 4.35

INNOVATION & ENTREPRENEURSHIP (INPUT DIMENSION)

No.	Variable	Poland 2005	Poland	EU-27	USA	European leaders
			2007			
3.1	SMEs innovating in-house (% of all SMEs)	12.50	13.80	21.6	n/a	37.3 Ireland
3.2	Innovative SMEs co-operating with others (% of all SMEs)	8.20	9.10	9.1	n/a	20.8 Denmark
3.3	Innovation expenditures (% of total turnover)	2.25	1.56	2.15	n/a	3.08 Greece
3.4	Early-stage venture capital (% of GDP)	0.007	0.001	0.053	0.035	0.051 Denmark
3.5	ICT expenditures (% of GDP)	7.20	7.20	6.4	6.7	9.90 Bulgaria
3.6	SMEs using organizational innovation (% of all SMEs)	n/a	19.30	34.0	n/a	58.4 Luxemburg

Source: EIS 2005 and EIS 2007

Ireland ranks first in terms of the support of small and medium-sized enterprises in introducing innovation measured by the share of innovative firms in the total number of SMEs. In Poland, the situation has improved; however, this is relevant to less than 13 % of SMEs, which represents less than 37 % of the same indicator for Ireland. SMEs' readiness for innovative cooperation measured by the share of enterprises cooperating with others with regard to innovations is relatively similar both in Poland and in the EU-27. The inclination of enterprises towards innovation measured by the share of expenditures on innovations in total turnover permits Poland to hold a favorable position as compared to the average of the EU-27. However, we must mention that in 2007 the capacities of Polish enterprises deteriorated. The accessibility of high-risk capital measured by the share of venture capital in Poland's GDP is undoubtedly insignificant and this funding tool is diffused with great difficulties.

The development of an information and communications infrastructure measured by the share of ICT expenditures in GDP has attained a level which exceeds the EU-27 average; and, what is typical, Bulgaria is a European leader in this sphere. The scale of organizational innovations in the total number of SMEs in Poland in 2007 amounted to only 19.3 % and was close to 50 % smaller than that of Ireland.

Economic instruments facilitating the development of medium and high technology production and services are also represented by the indicators of knowledge utilization results. The results appear in the form of work improvements and various business activities in the sphere of innovation. As instruments of central strategic coordination, they are also targeted at improving the market mechanism. They constitute economic policy instruments and can, specifically, cover the following: a structural policy designed to transfer power and technological capacities for assuring a competitive economy; facilitation in research and development in the context of R&D expenditures; support of knowledge and technology transfer, as well as an inflow of FDI; and the creation of a network of business consulting services, etc. They are also based upon an employment increase in the mentioned spheres and increased sales of new products, particularly those representing medium and high technologies (Table 4.36).

Table 4.36

APPLICATIONS (OUTPUT DIMENSION)

No.	Variable	Poland 2005	Poland	EU-27	USA	European leaders
			2007			
4.1	Employment in high-tech services (% of total workforce)	n/a	2.37	3.26	n/a	5.06 Sweden
4.2	Exports of high technology products as a share of total exports	2.70	3.10	16.7	26.1	54.60 Malta
4.3	Sales of new-to-market products (% of total turnover)	3.40	8.10	7.3	n/a	13.60 Malta
4.4	Sales of new-to-firm products (% of total turnover)	9.60	5.40	6.2	n/a	10.00 Germany 10.00 Spain
4.5	Employment in medium-high and high-tech manufacturing (% of total workforce)	4.35	5.13	6.63	3.84	10.75 Germany

Source: EIS 2005 and EIS 2007

Exports of high technology products as a share of total exports vividly illustrate the scale of the technological vacuum and low competitiveness of the economy. In 2007, though systematically improving, this variable for Poland was 5.5 times smaller than the average for the EU-27.

The radically smaller-scale of Poland's lagging behind the EU-27 measured by other indicators of knowledge utilization is indicative of progressive modernization due to the dissemination of innovations. This is reflected in the sales of new-to-firm products and a high rate of employment in high-tech manufacturing and services.

A large number of patents, new registered trademarks, and designs are a demonstration of the recognition of the successful application of specialized knowledge in practice. Values for the variables represented below are calculated per million of the population of a given country (Table 4.37).

Table 4.37

INTELLECTUAL PROPERTY (OUTPUT DIMENSION)

No.	Variable	Poland 2005	Poland	EU-27	USA	European leaders
			2007			
5.1	EPO patents per million of the population	2.70	4.20	128.0	167.6	425.6 Switzerland
5.2	USPTO patents per million of the population	0.40	0.60	52.2	273.7	167.5 Switzerland
5.3	Triad patents per million of the population	0.30	0.20	20.8	33.9	81.3 Switzerland
5.4	New community trademarks per million of the population	14.30	24.70	108.2	33.6	902 Luxemburg
5.5	New community designs of the per million population	5.20	30.20	109.4	17.5	240.5 Denmark

Source: EIS 2005 and EIS 2007

Patents fall into three groups depending on the institution granting ownership rights: the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO) and so-called triadic patent families. In Poland, there is a huge gap between the level of all invention activities and the degree of intellectual property rights protection.

According to simplified EIS methodology (Fedirko, 2007), Ukraine would rank the lowest, after Turkey. This is also supported by statistics (KAM 2008) implying that Ukraine, in addition to ranking poorly in KE, inclines towards the end of the ranking as previously (ranks 57, with KEI equalling 5.47).

4.8.5. Conclusions

The creation of the system of innovation in Ukraine is undoubtedly at the initial stage (Antoniuk, 2003). To accelerate the process, the state's economic policy needs to prioritize innovation activities, the development of science and education, integration with global innovation spheres, and the development of legal, financial, and public pro-innovation institutions associated with venture capital.

The acceleration of innovation diffusion processes requires the systematic government support of the competition regime consolidation, i.e. the improvement of markets and competition and assistance to the markets to engage instruments, procedures, and mechanisms of central strategic coordination associated with market logics. In practice, with the beginning of the 21st century, the intended level of innovation can be attained within the framework of hybrid structures composed of various complementary mechanisms, such as market, hierarchical and network mechanisms.

Due to historical, geographic, economic, and institutional arrangements, hybrid structures may be arranged in various manners, representing every time a particular combination of a market mechanism, hierarchy and a network mechanism. Therefore, one should give thought to the idea of utilizing human capital and innovation development samples tested by other countries. However, such samples should be corrected as per the specific nature of local (own) resources and possible combination of facilitating innovation mechanisms and tools aimed at motivating activity, creativity, cooperation, flexibility, riskiness, and risk assessment, as well as a fair bonus payment for such attitude.

4.9. Information Determinants of the Economic Convergence of Ukraine and Poland

4.9.1. Introduction

From the perspective of information, international relations arise when relevant actors become aware that such relations deliver better results than those arising from domestic opportunities. Thus, one may conclude that by satisfying the information needs of national entities in the most effective manner, a country assures the best business environment and the best satisfaction of consumer needs, which will entail low economic risks, low loan interest rates, a stable currency exchange rate, the minimization of the cyclic character of economic development, as well as sustained economic growth and public welfare. Decent international economic

relations are possible when explicit specialization and cooperation are in place and when entities have opportunities to utilize competitive advantages created due to unique information resources or the best use of such resources, let alone the situations with a monopoly over information resources. Thus, the issue of information falls into two large blocs, namely information resources and the infrastructure of information resource movement.

Guided by the above, Ukraine should make maximum efforts to develop competitive advantages for national entities, which is possible solely in the context of market relations in the information sphere, where the role of the state is limited to supervision over compliance with legislation and coordination of efforts designed to promote national interests. A low quality of information support of Ukrainian and Polish economic entities results in the weak utilization of commercial potential and small volumes of joint investment between the two countries. One should particularly note that the development of the economies of Ukraine and Poland in their movement towards information society is asymmetric.

4.9.2. Information society

Scholars tend to distinguish between the following major qualitative criteria for the transition to the information society (Ilnytskiy D., 2004):

1) Economic — the sector of information is viewed as a means of movement towards the information society and a leading role of information resources in economic relations on the national and international levels;
2) Technological — the extent of information technologies being an integral part of human life and the economy;
3) Social — the achievement of a new level of social relations;
4) Political — the impact of a free flow of information on politics and on the political situation, transition to new qualitative political relations;
5) Cultural — the vaguest factor, the results of cultures interweaving owing to new methods and opportunities for the exchange of information are difficult to anticipate.

Since international economic relations have both tangible and a intangible aspect, owing to the structure-forming function of information resources, the global economy develops as a complex system. Information resources of international cooperation, as a system object, are characterised by the following elements:

- Object of characteristic;
- Functions;

- Form of existence;
- Language;
- Value (price);
- Sources (media and carriers);
- Regulation;
- Level of usage;
- Access conditions (receipt, utilization, and disposition).

In the EU, and therefore in Poland, the practice of the existence of information society illustrates that key policy vectors are regulating the information society, stimulating its development and utilizing advantages (the official EU website…). Each of the above-mentioned directions consists of a number of components. The EU information society sector has achieved such level of development largely owing to such regulatory initiatives as the creation of a common market, television without borders, the adoption of harmonized standards (for instance, GSM) and the liberalization of the telecommunications sector.

Presently, one distinguishes between two major directions of the regulation of the information society, namely the regulation of information transfer and contents. With regard to the transfer of information, legislation pertaining to the regulation of electronic communications took effect in 2003. The legislation primarily regulates issues of sector development, stimulating competition, assuring sustainable growth and protecting the rights of the public and other users. The policy of managing limited resources of the radio spectrum is important in view of the current development of wireless networks, mobile communications, television, global positioning systems and research and development, etc. Thousands of national regulations were replaced following the adoption of a directive on radio and telecommunications equipment, which regulates a market worth more than EUR 30 billion. In the sphere of contents, the European audiovisual regulation assures freedom of the provision of services in the entire market without any borders, the promotion of public interests, user protection in commercial communication, minority rights and human dignity, etc. Ukraine should gradually approximate the above-mentioned conditions of market functioning.

The EU stimulates the development of the information society in three major directions: the eEurope initiative, research and industrial policy, contents and services. eEurope stimulates development by encouraging the development of a relevant infrastructure (for instance, broadband access to information, information security), providing services that matter to the public (e-governance, e-health, e-education, the management of digital rights, etc.), and stimulating e-business development. The research and industrial policies are intended to assure the competitiveness of

industry with the help of research and technological innovations. The stimulation of the development of the information society depends largely upon the success of the development of contents and services, the majority of which are produced by the private sector. The European cultural heritage constitutes a tremendous medium of contents. Europe is making considerable efforts to digitalize its heritage.

Ukraine and Poland have the task of searching for an information niche in the global economy. Though we should not deny the importance of technical aspects of the information society, we should primarily pay attention to the development of contents or, in other words, information resources «breathing» life into equipment and technologies, as well as to primary producers and consumers of such equipment and technologies, namely people who make economic life possible. Data transfer networks go through the territories of our countries; however, the utilization of a transit potential is rather narrow. In our opinion, the principal task is to visualise the role and the place of each citizen in the information society, to utilize advantages and to eliminate flaws. This also includes the fight against adverse aspects of the information society (assuring all-inclusive information privacy, fighting against cybercrimes, neutralizing harmful or illegal Internet contents, protecting consumers and health, etc.).

Taking into consideration such a multi-aspect nature of the economic life of the information society, we can conclude that at the current stage of Ukraine's development, *inter alia*, there is a need for a certain tool kit to regulate the economy's provision with information resources. This includes both information resources owned and administered by the state and the information resources of other entities. We believe that the following can become the key directions:

- ✓ Regulating online access to information resources;
- ✓ Regulating the price (value) of access to information resources;
- ✓ Regulating ownership rights to information resources;
- ✓ Regulating the activities of enterprises in the information sector (fiscal and non-fiscal);
- ✓ Indicative planning;
- ✓ Regulating transparency of government authorities and structures subordinate to the state.

4.9.3. Corporate Aspect of the Economy's Information Development

We would now like to elaborate upon the corporate aspect of the information development of the economy (primarily, transnational companies, as a model of a high level of commercial development). Considering the activities of TNCs, one should analyse the composition

of their assets (unfortunately, carrying out an expenditure analysis is too expensive). Intangible assets make up a considerable share of the assets of TNCs, which is indicative of the important role of such assets in the modern world, where globalization processes lead to the creation of a global economy, whose key players are TNCs. The research conducted by the author identified the meagre dependence of the effective performance of leading TNCs in various sectors of the global economy upon intangible assets, which include information resources, which can be attributed to the high effectiveness of their utilization and a significant share in assets — 14.1 % on average. Analyzing the dependence of revenues from the sale (B_i) of intangible assets (*NA*) of leading global TNCs (B_{tnc}) and Ukraine's TNCs (B_{ukr}), the researcher generated the following dependencies (Ilnytskiy D., 2003):

$$B_{tnc} = 26{,}873.16 + 0.28\ NA;$$

$$B_{ukr} = 666.48 + 10.23\ NA.$$

The dependence is high due to a low level of effectiveness of their use in Ukraine and an insignificant share in total assets, namely 0.41 % on average or 3,432 times less than in leading global companies. In the current context, investing in non-tangible assets is more effective than in material assets in Ukraine. On average, leading global companies depend on non-tangible assets 36.5 times less than leading Ukrainian companies, which is attributed to the fact that TNCs have achieved high effectiveness of the use of information resources. Therefore, it is necessary to study the global experience and follow suit. Ukraine should develop a system of incentives to enhance the intensity and effectiveness of the use of information resources in the national economy.

On the other hand, the share of provided services associated with communications and information transfer in the composition of Ukraine's economy has stopped growing (Table 4.39), and the speed of the sector development outstrips that of the GDP in recent years. However, the development is somewhat hindered by the monopoly of Ukrtelecom Joint Stock Company, a company that has been the target of privatization efforts for many years. We can consider access to networks for a country, as an indicator of information advancement (Table 4.38). Access to networks assesses the use of mobile communication services, rather than the use of fixed-line phones, as the case would traditionally be for Ukraine.

Table 4.38

TOTAL SUBSCRIPTIONS TO THE SERVICES OF OPERATORS OFFERING MOBILE TELECOMMUNICATION SERVICES FOR INDIVIDUAL EUROPEAN COUNTRIES (PERCENTAGE OF THE POPULATION)

Country	2003	2008	Country	2003	2008
EU-27	78	122	Poland	46	116
The Czech Republic	95	133	Austria	88	87
Germany	79	130	Slovenia	87	102
Estonia	77	121	Slovakia	68	102
Greece	81	169	Finland	91	130
Spain	90	112	Sweden	98	119
France	70	91	Great Britain	89	126
Italy	98	152	Bulgaria	45	137
Latvia	52	98	Croatia	57	110
Lithuania	61	149	Romania	32	114
Hungary	78	122	Turkey	40	93

Source: Developed by the author with the help of the official Eurostat website http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tin00060&plugin=11

As we can see in Table 4.38, the majority of countries (however, not all of them) had resolved this task by 2007. For comparison, at the beginning of 2007, the total of subscribers to the services of operators offering mobile telecommunication services in Ukraine exceeded the total population, while at the beginning of 2004, the share of such subscribers was equal to only 13.6 % (at the beginning of 2010 — 120 %)[41]. Taking into account the total number of owners of fixed-line telephones, it can be ascertained that there is an absolute telephone penetration in the country. However, presently, one of the key indicators in the EU is broadband access to networks (the Internet, telecommunications, etc), and Ukraine is somewhat lagging behind in this sector and a relevant indicator is not even published.

[41] Data from the website of the State Statistics Committee of Ukraine http://ukrstat.gov.ua/operativ/operativ2010/tz/az/az_u/az2010_u.htm

4.9.4. National Priorities — Time to Act

Ukraine's integration in the global economy and approximation with individual countries, for instance Poland, is a long-term and continuous process, which may not happen immediately and envisages passing through preceding phases, namely contacts, cooperation, and interaction. At the contact level, one utilizes the smallest share of information in order to have contacts and the largest share of unvaried information requests pertaining to contractors and objects of relevant relations (most often, registration data about relevant entities and their contacts, the price and quality of goods, services, and works). At the contacts level, there is the greatest probability of incurring costs due to inaccurate current information on contractors. Cooperation requires a profound analysis, forecasting, and elaboration upon common goals. Integrating, entities develop a common mission, which requires impeccable information efforts and resources.

Ukraine's integration in the global economy requires primarily effective competitiveness on the national markets. Analyzing development in the institutional dimension, we would like to note the high priority of the micro-level in terms of assuring human needs and the social orientation of developed economies. Evolutionary development assures stability and heredity of information resources; therefore, the primacy in international economic relations must belong to micro-level subjects, namely entrepreneurs and companies engaged in foreign economic activities. By developing relations, they transfer signals and indicators of development and experience to other subjects created for assuring sustainable development. International organisations and states, as subjects of international economic relations, operate for the micro-level to have the best advantages. Assuring simple, but massive contacts will result in an evolutionary and optimal formation of Ukraine as a party to international economic relations.

Presently, the enterprises of Ukraine do not yet allocate sufficient funds that are required for the information support of their international cooperation. Two primary facts prove that:

- Companies that specialize in the provision of information and consultation services account for an insignificant share of Ukraine's economy;
- Global information companies are underrepresented on Ukraine's markets.

There has been some progress lately in this direction. However, no essential structural changes have taken place. Recently, some enterprises have created their own web pages in the Internet, while fewer enterprises

do that on a permanent basis (the share of such enterprises in Poland is greater than that in Ukraine) (Table 4.39). Unfortunately, only a rather limited number of users from other countries can utilize such data, since this requires knowing a foreign language. Quite often, a company can only receive necessary information about a Polish or Ukrainian partner through a company in Germany or even in the United States. Therefore, we can assess the provision of companies with business information as being unsatisfactory. Polish trade missions are more active in this sphere, and their Ukrainian colleagues should follow suit. Companies often resolve the problem of a lack of information by attending national trade shows and fairs, which is not the cheapest way to search for partners.

Information about the local and national environment accounts for a considerable share of information resources utilized for international cooperation. For various enterprises, the significance of information resources depends on the specific properties of a relevant industry, the level of integration in the international division of labor, competition, and factors determining the competitiveness of such enterprises. However, national competitive advantages generally rely on national information resources, the effective utilization of which, in combination with international resources creates the foundation for leading on the global markets.

Table 4.39

COMPARISON OF DEVELOPMENT INDICATORS FOR UKRAINE AND POLAND

Indicator	Poland		Ukraine	
	2004	2009	2004	2009
Gross domestic expenditure on R&D, percentage of GDP	0.57	0.67	1.13	0.95
Researchers, thousands	96.5	97.3	105.5	92.4
FDI from the contractor's country, USD millions	21.3	49.4	225.0	868.8
Enterprises with access to the Internet, %	85	91	25*	50*
Enterprises reporting through the Internet, %	50	57	5*	9*
Regular internet users (individuals), %	34	52	18	54
ICT expenditure, % of GDP	7.2	4.2	7.7	5.1
High-tech exports, % of exports	3	4.3	4	3*
Human development index	0.85	0.88	0.77	0.79

* Expert assessment

Source: Developed by the author with the help of the Eurostate website… as of October 2010, the official website of the State Statistics Committee of Ukraine (http://ukrstat.gov.ua/operativ/operativ2005/ni/indrik/indu/2002.html), and the UN Human Development Reports for 2004 and 2009.

One should strongly criticize the relations of local self-governance bodies and enterprises, since they do not take advantage of available opportunities to receive information from enterprises located on their territory or to facilitate information support for the local community. The improved exchange of information between local self-governance bodies of Ukraine and those of Poland will promote enhanced economic cooperation between the regions. For such purpose, at the local level, one should initiate the identification of competitive advantages, the utilization of which by the representatives of both states will be an impulse for international business.

Presently, only a few large cities in Ukraine implement a consistent and active policy to improve the satisfaction of the information needs of their partners, including prospective partners, associated with the development of international cooperation. Such cities include Odesa, which is developing an image of an attractive resort city; Kharkiv, which is engaging partners in high-technology sectors; and Lviv, which is developing the image of a Western city. Historic sites, cities, and their names are extremely powerful and economically attractive trademarks and all enterprises located on the territory of such sites or cities work for the benefit of such trademarks. It is reasonable to utilize this potential and opportunities, which will entail minimum costs and will facilitate an inflow of foreign tourists and entrepreneurs, thus enhancing the public welfare and the utilization of the country's potential for participation in the division of international labour.

In EU countries, structural funds on the regional level allocate significant amounts to fund the development of projects pertaining to individual aspects of the information society. Such aspects include the following most relevant:

— Elimination of a digital divide (asymmetry) of regions;
— Science and innovation;
— Networks of data transfer and exchange;
— Protection of intellectual property rights;
— Participation of small and medium-sized companies in the information society.

Some of the above-mentioned projects are implemented in Poland. Polish partners can engage Ukrainian companies, since the scope of work to be implemented is extremely large. In view of the need to raise private capital, capital from Ukraine could also be at hand, which would require arranging an ongoing exchange of information about such opportunities between the companies of Poland and Ukraine.

Presently, there is a number of major channels for the provision of information to Ukraine from abroad. We would like to mention the following:

- Ukraine's participation in international trade shows, fairs, and conferences;

- Collection and transfer of information about opportunities for the development of international cooperation by trade and economic missions of Ukraine abroad;
- Receipt of direct proposals from foreign companies;
- Activities of press correspondents from information agencies;
- The companies' own sources of information.

We believe it is necessary to enhance the effectiveness of the utilization of the above-mentioned channels. The functioning of the majority of the channels does not have a systemic target-oriented nature. Consequently, only a minimum of opportunities created by the global economy are utilized. It is necessary to develop such channels as the utilization of opportunities to participate in international organisations, international exchange channels, auctions, bidding procedures, the development of a network of business press centres, the analysis of economic information coming via Internet channels, the facilitation of the development of representative offices of Ukrainian companies abroad and those of foreign companies in Ukraine. The collection and transfer of information should not be the functions of the state, which should only promote the performance of such functions by Ukrainian companies.

Ukraine's participation in international trade shows, fairs, and conferences has a sporadic nature, which restricts the effectiveness of participation. The receipt of direct proposals from foreign companies is non-permanent and hard to anticipate. Press correspondents of information agencies operate only in some countries or in the form of short-term business trips. Meanwhile, only trade and economic missions of Ukraine abroad collect and transfer information about opportunities for the development of international cooperation on a permanent and systematic basis.

A survey of the employees of Ukraine's trade and economic missions demonstrated that most commonly, foreign entities request information about companies engaged in or producing certain types of activities, company contact details and the reality of a company's existence, as well as communicate proposals associated with a search for partners for further cooperation in certain sectors. Such information does not constitute a commercial secret in Ukraine; however, financial and legislative restrictions hinder the free receipt and distribution of such information. We have covered relevant implementation mechanisms related to this issue above.

On the other hand, the channels delivering information about Ukraine to the world differ to some extent, particularly in terms of their effective utilization. We should note that economic information is virtually beyond the scope of government interests in developed countries, while

developing countries largely depend on the effective performance of the state in this sphere. The primary channels of the receipt of information in Ukraine are as follows:

- Representative offices of information agencies in Ukraine;
- Representative offices of companies, their unions and chambers of commerce and industry;
- Participation in fairs and trade shows in Ukraine;
- International organisations.

We would like to mention that the utilization of Ukrainian information resources is an issue of Ukraine. However, presently, the provision of Ukrainian information resources to the foreign environment is insufficient. There is a need for the permanent provision of information about Ukraine's capacities and opportunities to trade and economic missions of Ukraine abroad, including in the language of the relevant country of location, which requires the comprehensive utilization of Internet opportunities[42], by assuring the maintenance of web pages in leading foreign languages. The development of market relations and commercialization in this sphere should become the primary direction, which will facilitate the rapid resolution of problems and the effective utilization of resources.

After analysing the promotion practices of Ukrainian companies on foreign markets, we would like to point out the need for considerable costs, which only the largest global companies can afford. The problem can be resolved by the development of recommendations by Ukraine's trade and economic missions about optimal options for creating representations of Ukrainian companies in the countries of their location, and the coordination and consolidation of efforts of several companies to establish common representative offices and to provide services to other companies, which do not have such an opportunity.

Scientific information and information resources, which constitute an object of intellectual property, are a part of information resources, which are a target of competition. Authors and producers of such information goods can be located anywhere in the world, and relevant ownership rights can be transferred between entities, while relevant entities take into consideration the unique properties of information as a commodity. Perceiving this as the basis of the country's wealth, developed countries created powerful systems for the legal and economic protection of their wealth. The turnover of trade in such goods between developed counties is extremely large relative to that of developing states, which primarily trade in ready-made tangible commodities or raw materials (World Trade Reports 2003-2010…).

[42] EU countries implement a policy aimed at accelerating and enhancing Internet use in all spheres of public life, including both the economy and socially vulnerable groups of the population. See the Opinion of the Economic…, 2002.

We suggest determining education as a strategic element of the economy of Ukraine. Education is a branch that must constantly aim to improve the effectiveness of the use of information, particularly in the sphere of international economic relations, where adopted decisions generally entail long-term large-scale changes. Germany and Japan offering free higher education to its citizens confirm the importance of education for the national economy. In addition, the United States has created substantial preconditions and incentives for obtaining high qualifications by those willing to do so.

Since various risks present an obstacle to the development of international economic relations, we deem it reasonable to propose risk mitigation measures. First, we would like to analyse measures aimed at risk mitigation on the national level. In addition to ensuring easy access to primary national normative acts in a foreign language, one should implement information campaigns about the opportunities and advantages laid down in national legislation, the activities of local self-governance bodies, special economic zones, priority-development territories, etc. The state budget must make a provision for associated costs; in addition, activated economic performance and increased profits of national taxpayers will offset any such costs.

A lack of experience creates pre-conditions for the diffusion of the trial and error method in economic life; therefore, it is reasonable to introduce a system of experience exchange. Since such experience is very valuable, one should stimulate those who will disseminate it with the help of additional funding or tax incentives, reducing the tax burden for companies participating in such measures. In terms of organization, the higher educational institutions of Ukraine and Poland can deliver the best results in this sphere.

The ill-timed receipt of information in the sphere of international economic relations is a key element that increases risks. For the timely supply of information at all levels, it is necessary to develop telecommunications profoundly, providing high quality and inexpensive communications to business entities. This is particularly important for the formation of national markets of mass production goods and facilitates the development of such goods due to competition and development to be highly competitive on the international level. The development of telecommunications should not be limited to the installation of telephones, but supplemented with the development of associated and more in-depth services (the Internet, facsimile, e-mail, teleconferences, data transfer channels, mobile and 3G communications), and particularly a software market. Therefore, the economy needs a well-developed information and telecommunications infrastructure that will comply with

global standards and satisfy consumer needs (both national and foreign) in Ukraine and Poland.

Ukraine has a rather mature software component of the national economy, which is illustrated by the fact that Ukraine ranks fourth in the world with regard to the total of software developers licensed by Microsoft. Our partners in Poland should utilise such advantages, and road shows initiated by private business and supported by the state could facilitate this. Ukrainian companies should be the key beneficiaries of this advantage, since as a result of computer penetration the need for specialized software has grown significantly and seems to be growing further.

Ukraine, which is moving towards an information society, needs measures to increase the assessment of non-tangible assets, the main component of which is information resources. An analysis of the current situation with the use of non-tangible assets demonstrates that such assets constitute an insignificant part of the total value of assets of Ukraine's enterprises. The situation varies depending on the sector, however in general it needs drastic changes. It is necessary to enhance the effectiveness of the system of intellectual property protection, to develop the information culture of society and to support entrepreneurs. It is at the micro-level that the entrepreneurs should realize that experience, business reputation, trademarks and images, patent protection of goods, know-how and other information resources are an integral and important part of the economy.

Since one of the marketing functions is to inform relevant stakeholders engaged in economic relations about opportunities, such stakeholders who are interested in the effective performance of the function should be active in such processes. Therefore, the state should support private initiatives with regard to the development of information markets in Ukraine and the cooperation of private entities with foreign partners. Overall, the role of the state must be limited to the supervision of the development and regulation of the information market based on national interests, as well as intervention and support, if required. The following types of governmental e-service can be used as a methodological basis (Table 4.40).

Political factors play an important role in the provision of sufficient information in the sphere of the economy. Dependence of information agencies, television, radio, press, libraries, and public information centres for the political stance of their owners and upon funding often impedes the free circulation of information. Therefore, at the national level, it is reasonable to introduce, inter alia, a key criterion of the availability of information in the sphere of the economy, namely the profitability of the activities of information agencies, television, radio, press, public information centres, and libraries.

Table 4.40

GOVERNMENT E-SERVICES

	Information services	Communication services	Operational services
Everyday life	Information on business issues, households, education, health, culture, transport, environment	Discussion of every-day life issues; information stands	Examples: ordering tickets, computer registration
Tele-management	Public services list; management of administrative procedures, state registers and databases	E-mail communication with government officials	E-submission of documents, applications and reports
Political participation	Laws, political agendas, sub-legislative acts, consultations and clarifications; information on decision justification	Discussion of political issues, e-mail communication with politicians	Surveys, elections, referenda, petitions

Source: Green paper on…, 1999.

The sole objective of overall efforts to ensure information penetration at the micro-level should be responding to consumer needs for information on non-tangible goods as soon as possible and providing information about the best available options for satisfying material needs. We can hold this thesis as a version of the modern marketing concept, which permits the combination of the satisfaction of consumer needs and the effective operation of commercial companies. Understanding and pursuing this objective, Ukraine could become a leading country of the world.

4.9.5. Conclusions

Overall, EU countries and Poland are somewhat ahead of Ukraine in terms of information infrastructure development, generously funded by the government and enterprises. Ukraine should utilize this gap to avoid any errors and to select priorities in order to make the right choice.

A lot has been done lately in legal terms to improve the situation. However, market relations with regard to intellectual property are developing slower than scientific and technological progress, which could result in their devaluation and loss, a lack of stimuli to create new ones, outflow of intellectual property to foreign countries, where the market economy will assign a higher value to such intellectual property. In our

opinion, Ukraine needs long-term programs (and, most importantly, accurate program implementation) pertaining to the development of market relations in the sphere of intellectual property and the development of a relevant consumption culture, since such objects will constitute the basis of the information society and information policy, which the world is seeking to create. In the context of information economy, the share of material production is secondary, relative to the production of intangible goods, i.e. the situation is drastically changing as compared to the existing one. Timely responses to identified issues will permit the creation of grounds for the future welfare of Ukraine, which is famous for its talents, and competitive advantages for national companies, which will be able to assess non-tangible assets realistically and to enhance the significance of such assets.

Liberalism and the sporadic nature of the information progress of Ukraine in creating an information society should be channelled at least by indicative planning (even better, a strategy for the information development of Ukraine) towards universally recognized and globally tested directions. Poland's experience, which is gradually approximating its national legislation with EU requirements, would be relevant to Ukraine. The correcting of the asymmetry of the informational development of the economies of Ukraine and Poland will facilitate their further convergence and future integration.

4.10. Contemporary Issues of Education Reforms in Ukraine and Poland

4.10.1. Introduction

In today's globalized world, education is one of the key strategic resources for socio-economic activity, society's development, and the assurance of its technological advances and competitiveness. Both developed and developing countries are constantly in the process of transforming and developing new models for their education systems, which must conform to the new demands of the information society. These transformational processes vary in depth and the nature of implemented measures and aim at finding systems for organizing, managing, and funding education more effectively. These systems should provide for a high quality of educational services and, thus, a higher level of general literacy, civil awareness and professional competence of the citizens.

The understanding of the crucial role of education in the development of modern-day societies became the basis for the adoption of strategic projects

and programs by many countries. Such recent programs as «Education in 2000» (Germany), «American Education in 21st century» (USA), «Education of the Future» (France), «Model for Education in the 21st century» (Japan), among others, view the development of national education systems as a key factor for improving a country's competitiveness on the world arena and securing its steady social and economic development.

The EU affirmed the importance of education by adopting the Communiqué on the implementation of the Lisbon Strategy in the field of European research and the role of universities in Europe. The Communiqué dated 5 March 2003 establishes the functioning of the knowledge of the European community as a fundamental part of the European future. The key factors of this community are the creation of new knowledge, its transmission in the process of education, diffusion and utilization of knowledge in new services and production processes.

The Commission ascertains that European educational institutions do not meet global competition from most of the partner states of the EU. One third of Europeans (and up to 40 % of the population of Sweden and Denmark) already work in education-oriented enterprises, which demands relevant training. Currently, 20 % of the EU residents aged 35-39 have a higher education while 20 years ago this index was at a level of 12.5% for the same age group (Pawłowski, K., 2005 : 27).

The Commission's communiqué outlines several new challenges for the European institutions of higher education:

— *Increased demand for higher education because of its wide-scale nature*;

— *Progressing internationalisation in education and academic research* (the fact that the European universities enrol fewer international students than their American counterparts);

— *Development of close and effective cooperation between higher education institutions and production* (emphasis on the fact that this connection today is the weakest link in the European education system: less than 5 % of all innovative companies consider information received from state academic institutions important and useful);

— *Increase in the number of institutions responsible for the development of sciences* (tendency among manufacturers to involve the resources of the best educational establishments, regardless of their location, into research, which often means cooperation with non-European educational institutions);

— *Restructuring of knowledge* (development of two opposite tendencies: the growth of diversification and specialization of knowledge and a growing gap between theoretical and applied research require the more flexible management of research in applied sciences);

— *New expectations* (for instance, an increased need for training new professionals in applied and engineering sciences, as well as for life-long learning).

Ukraine and Poland entered a stage of radical social transformations with roughly similar potential. They both had to tackle similar problems pertaining to education reforms, along with decreasing centralized control, the private sector development and diversification of educational institutions according to various consumer demands, as well as the enriching of pedagogical content, forms and methods of education. Both countries began education reforms in the 1990s. In this chapter, we will not touch on the pedagogical changes (although they, too, were substantial), but focus instead on the similarities and differences between the changes that happened in the structure, management and funding of the education systems of these two countries. These similar tendencies are characteristic of the development of these countries and their education systems in the early 21st century.

The challenges of modern-day globalization in education manifest themselves in the need for increasing the scale of education, prolonging the duration of education in the professional life of a worker, changing requirements to the quality of human resources in today's production processes, and, finally, establishing various international forms of educational activity. The internal transformational processes and the civilisation challenges contribute to similar tendencies in the changes in the scope, structure, organization and funding of both Ukrainian and Polish education systems.

4.10.2. Reform Strategy

In the early 1990s, the State National Program «Education: 21st Century Ukraine» adopted at the Congress of Educators in 1993 outlined strategic tasks for the development and reformation of the Ukrainian education system. The program called for aligning the Ukrainian education system with those of developed countries; radically reforming the concept, structure, and organization of education; and overcoming the state's monopoly on education. The period 1993-2000 mainly saw the completion of restructuring of the education system based upon a new, democratic foundation. Substantial changes took place in the organization of educational activities, management, and economic and financial mechanisms. The strategy and key directions in the development of education in Ukraine in the first quarter of the 21st century are outlined in the «National Doctrine for the Development of Education in Ukraine in the 21st Century» approved at the National Congress of Educators in

October 2001 («National Doctrine…,» 2001). According to this document, «Ukraine must implement the strategy of accelerated, outstripping the innovation-based development of education and sciences» (Idem : 4).

Education reforms in Poland also began in the 1990s, when in 1990 a new law was approved on higher education. It stipulated the creation of private educational institutions and the wide-ranging academic autonomy of higher state education institutions. This law limited the rights of state controlling bodies which have now become reduced to the allocation of budget funds between educational institutions (based on the algorithms developed in agreement with the academic self-government, namely the National Council for Tertiary Education) and providing permits to create private education institutions (Pawłowski, K., 2005, page 80).

The adoption of this law resulted in the expansion of the education system. In 1990, Poland had 404,000 students, with about 320,000 studying free of charge. In percentages, students comprised 12.9 % of the population; only 7 % of the Polish people had higher education degrees (in comparison to close to 20 % in Western European countries). In 1989, in Ukraine, 9.5 % of the population above the age of 10 had higher education degrees.

Before 1990, higher education was provided almost exclusively by the state, both in Poland and in Ukraine. The only existing non-state educational institution was a university funded by the Catholic Church (without taking into consideration ecclesiastical educational institutions). The structure of almost one hundred state educational institutions consisted of 10 universities with numerous departments located in big cities and around one hundred specialized educational institutions, such as arts, medical, economics, polytechnic and agricultural institutes and academies.

The education system responded actively to the measures taken. First, the share of paid education (evening and remote studies) grew in state institutions of higher education. Furthermore, private educational institutions started appearing simultaneously, without outside influences, in Warsaw and other big academic cities, and later on in smaller towns where no institutions of higher education had existed before 1990.

4.10.3. Student Population

It is a worldwide tendency in the evolution of education that its importance in preparing modern workers demands longer study terms. In the current context, higher education is becoming more and more a part of the ‘compulsory’ education of the population — the education that the

new society of the 21st century is bound to provide to all of its members before the start of their professional and adult, family life.

The process of the expansion of compulsory education and the inclusion of higher education into its concept began in the leading countries in the last quarter of the 20th century, gradually spreading to more and more world countries. This tendency can be traced in the data on the duration of compulsory education in some developed countries (Table 4.41).

Table 4.41

EXPECTED AVERAGE DURATION OF COMPULSORY EDUCATION FOR CITIZENS OF DEVELOPED COUNTRIES (CALCULATED FOR CHILDREN AGED 5)*

Country	1996	2002	2004
Belgium	16.6	18.5	19.6
Spain	16.7	17.3	17.2
The Netherlands	16.5	17.2	17.4
Great Britain	14.2	20.0	20.7
Denmark	17.1	17.3	19.0
Germany	16.5	17.1	17.4
France	16.5	16.5	16.8
Greece	14.0	16.3	16.9

* Complied by the author with the help of the data from Education at a glance 2007// http:// www.oecd.org/.

The growing need for higher education is objectively illustrated by the growth of the student population. Both absolute and relative indexes can reflect this tendency. For instance, in Ukraine in the 2008/09 academic year, the number of students enrolled in higher education institutions of all levels was equal to 2,763,900. Moreover, compared to the 1990/91 academic year, this index had a 59.2 % increase (1,638,300).

We can observe a similar tendency in Poland. However, its speed was much higher. The student population increased almost five times: from 400,000 in 1990 to 1,927,800 students at the beginning of the 2008/09 academic year.

The number of students per 10,000 people is the most widespread international comparative index. In Ukraine, the growth of the student population on an absolute scale manifested itself in the growth of relative indexes. In 2008/09, 599 out of 10,000 people were students in higher education institutions (I—IV accreditation levels), including 512 students in institutions with III—IV accreditation levels. Table 4.42 illustrates comparative indexes for other countries of Central and Eastern Europe.

Table 4.42

TOTAL STUDENTS PER 10,000 PEOPLE IN CENTRAL AND EASTERN EUROPEAN COUNTRIES IN THE 2003/04 ACADEMIC YEAR*

Country	Total students per 10,000 people
Albania	220
Macedonia	253
Slovakia	275
Romania	285
Moldova	287
Bulgaria	292
Croatia	334
Belarus	343
Hungary	403
Russian Federation	451
Poland	484
Estonia	486
Lithuania	495
Ukraine	512
Slovenia	522
Latvia	550
Bosnia and Herzegovina	…
Czech Republic	…

* Compiled according to: Education at glance 2007// http:// www.oecd.org/.

At present, Poland has almost 2 million students. This means that the student population has reached 46.2 % and exceeded the index of the total students enrolled in many developed world countries. The year 2003 can be characterised as the final year of vigorous changes in the Polish education system. Due to a population decline, the number of Polish students is expected to drop by 30 % in the years to come.

4.10.4. Funding

Public expenditure on education is the first proof that the country understands the role of education; it should not depend on the country's economic situation. The state must guarantee the necessary funding for education (5—7 % of GDP) not only by declaring these provisions, but also by developing the mechanisms for their implementation and strict monitoring. However, the beginning of reforms in Ukraine and Poland was marked by a radical decrease in funding for the education system.

In the 1970s, on average, the USSR spent close to 7 % of its GDP on education. In Ukraine, state expenditures in education were only 4.6 % of GDP in 1992, 5.4 % in 1995, 3.15 % in 2000, and 6.1 % in 2008. We

should mention that these dynamics do not prove the rapid oscillation in the amounts of funding. According to absolute indexes, state funding has been growing consistently; its decrease is attributed to GDP growth in 2000. In the meantime, the growth of this index in recent years is conditional upon the mechanical unification of all the resources coming from both the state and from private budgets.

The decrease in state funding is understandable in view of the economic crisis during the transition period; however, regardless of the state of the economy, state resources alone are not enough to fund an education system that would meet contemporary demands. Therefore, in the majority of countries, education funding is complemented by other resources, such as private funds, contributions from business, charitable contributions, etc. Private contributions to education are rather substantial in developed countries. In the USA, for example, the percentage of the GDP allocated for education is being increased from 5.5 % to 7.0 %. In Germany, the education-directed funds are being increased by 38 %, thus increasing the allocated portion of the GDP from 4.0 % to 5.4 %. In Japan, private contributions add 25 % of state expenditures (Heyneman St.P., 1998 : 20).

To a certain extent, the diversification of funding sources also influences the functioning mechanism of educational institutions. The need to manage various funding inflows coming to the institutions from several sources not only asks for a legal foundation, but also complicates the functioning of the institutions' financial managers. This manifested itself in the expansion of entrepreneurial activity of educational institutions. In the USA, leading educational institutions are turning into significant financial corporations that own sufficient fiscal portfolios and invest in various entrepreneurial projects. This activity is also starting to develop in Ukraine: the National University «Kyiv-Mohyla Academy», together with a bank, created a fund to support the teaching staff; the fund is open to all types of contributions. Another widely known institution — the Ternopil Academy of National Economy — is also turning into a well-established financial corporation.

The state resources remain, at the current stage, the primary form of financing education. This is characteristic not only of the countries in transition that are now moving away from the system of state-guaranteed, free education. Although the private portion of funding varies across the countries, the following tendency can be seen: private funding is lower in developed countries and higher in countries with medium and, in particular, low incomes.

State expenditure on education in Ukraine was not stable in the 1990s according to both absolute and relative indexes. In 1992, education-

related spending was fixed at UAK 242.2 billion (Karbovanets), i.e. 12.1 % of total budget spending; in 1997, the number was equal to UAH 5,033.7 billion (Hryvnia) (11.7 %); in 2000 — UAH 7,085.5 billion (14.7 %); in 2005 — UAH 26,801.8 billion (18.1 %); in 2008 — UAH 53,207.4 billion (20.5 %) (Statistical Yearbook…, 2005; Key indexes …, 2006). As a part of Ukraine's GDP, the portion of education-related expenditures has the tendency to increase: 1997 — 5.4 %, 2000 — 4.2 %, 2005 — 6.1 %, 2008 — 6.1 % of GDP.

While state resources remain the primary source of funding for education, the mechanism itself, goals and methods of the state funding of education take various forms in different countries. The key distinction between funding systems lies in their orientation towards concrete or end goals and the use of methods to reach these goals. Finally, the mechanism of funding education can be an important factor for increasing education's internal and external efficiency.

4.10.5. Private Sector

The complication of the mechanism of funding education characterized by convergence, the approximation and acquisition of common features by state and private sectors manifests itself in the further expansion of various sources of funding at each level of the education system. Along with the traditional sources of funding (state, private, business), we see the arrival of new and combined mechanisms of paying for education (student loans, education vouchers, etc.), which aim at combining various mechanisms of funding and providing education, as well as implementing elements of competition and accountability for the quality of the services provided. Private funds can be involved through the creation of private educational institutions or the transition to private sources of funding.

During the 1990s, Ukraine saw a rapid growth of private education: on the one hand, educational institutions of other forms of ownership appeared; on the other hand, the portion of private contributions in the revenue of state educational institutions increased. The share of private secondary education institutions is the lowest, which is quite clear in view of the state policy of Ukraine that guarantees full, free secondary education to all citizens.

The largest share of the private sector belongs to the level of higher education: almost one third of higher education institutions accredited at III—IV levels are non-state institutions. However, they enrol 15.5 % of the student population. Hence, the rapid increase in the number of higher education institutions does not necessarily imply that they have an important influence on encouraging young people to pursue higher education.

The expansion of other forms of the involvement of private resources into education of Ukraine is on a much larger scale. Generally, state educational institutions are funded through a combination of state allocations (centralized or local) and student tuition payments. In 2008, 55.3 % of all students (56.3 % in 1999) were studying on full government funding in I—II accreditation level higher education institutions; 44.7 % (31.2 % in 1999) of the students were funded by private individuals and legal entities. The percentages in these categories for students enrolled in III—IV accreditation level higher education institutions are respectively, 36.2 % (48.3 % in 1999) and 63.8 % (38.4 % in 1999).

The share of enrolled self-funded students is constantly growing. While in 1995, the government allocated full funding to 80 % of all first-year students in I—II accreditation level institutions and 74 % of first-year students in III—IV accreditation level institutions, 2008 saw these numbers drop to 59.3 % and 44.8 % respectively. Although the Law of Ukraine «On Higher Education» provides that not less than 51 % of all student population should receive state-funded education, state-funded higher education institutions continue to see a decrease in state-funded admissions and an increase in the self-funded student population.

The first private institution appeared in Poland in 1991 in Nowy Sącz with a population of 80,000. This was Wyższa Szkoła Biznesu - National-Louis University. The success of this institution on the job market was already evident within three-four years and stimulated the advent of new private schools. Today, the number of such educational institutions (more or less developed) located in smaller towns is more than 100, including 28 specialized vocational state institutions created by the state administration over a period of several years using the German vocational school model (Fachhochschule). In such schools, studies only cover a period of three years, until a student receives a basic-level education diploma (licentiate's degree). For small and medium towns, which saw the decline and closure of unviable socialist enterprises, these educational institutions become perhaps the only opportunity for local development.

The education structure in Poland is rather complex. Due to budget limitations, only 706,854 (39.3 %) of the total student population of 1,800,548 received full government funding to be enrolled in state educational institutions in 2002. The rest of the students paid for their education in state (31.3 %) or in private educational institutions (528,820 students, i.e. 29.4 % of the student population). In 2008, of the total 1,937,800 students, 1,277,000 attended state schools and 660,500 were enrolled in private institutions.

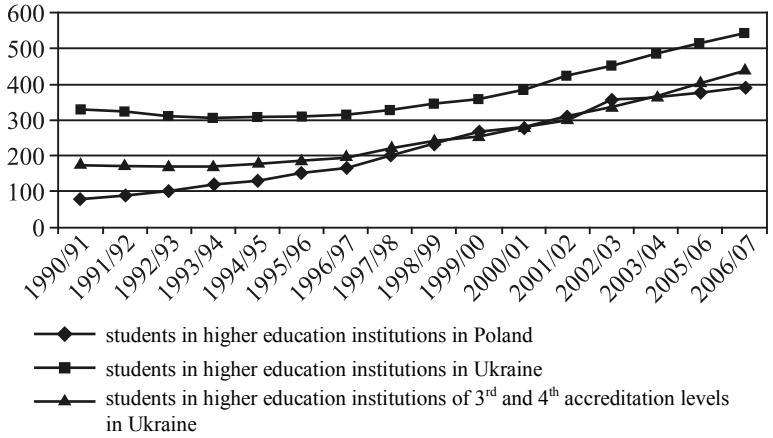

Figure 4.13 Dynamics of Total Students Enrolled in Higher Education Institutions in Ukraine and Poland in 1990—2005

Source: Pawłowski, K., 2005; Key indexes…, 2006

Higher education institutions in Poland fall into the following groups:
— State (in 2000, they enrolled 131,235 first-year students);
— Non-state cooperative, founded by cooperative societies of professors;
— Non-state private, founded by natural or legal persons.

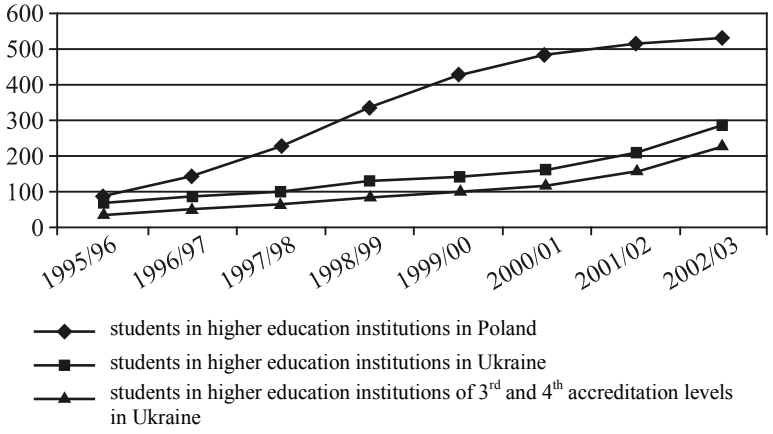

Figure 4.14. Dynamics of the Total Students Enrolled in Private Higher Education Institutions in Ukraine and Poland in 1990—2005

Source: Pawłowski, K., 2005; Key indexes…, 2006

There is obviously no clear line between cooperative and private institutions. However, according to Krzysztof Pawłowski, a prominent figure in Polish higher education, this line may be determined based on an analysis of expenditure. It is most probable that funds (received from students' payments) in state and cooperative institutions are almost entirely directed towards salary payments, and only in the institutions provisionally known as «private», a portion of funds (in the form of financial investments) goes into the construction of scientific and academic centres, the development of infrastructure and student services. An analysis of the non-state higher education sector shows that at least 30 institutions consistently invest into their own development; they are and will be an alternative to state institutions. A large part of the rest of the educational institutions (cooperative or purely commercial) will disappear when their student enrolment decreases to a level that is not sufficient to cover the current costs of their functioning.

In 2008, there were 456 functioning higher education institutions in Poland, including 131 owned by the state. 65.9 % of the student population studied in these institutions. The number of private and non-profit institutions is growing regardless of the fact that present-day first-year students are young people born in the years considered to be the beginning of the demographic crisis. Another important fact is that private educational institutions are emerging not only in big cities where state universities and their highly qualified academic staff already exist, but also in small and medium towns. Table 4.14 illustrates that the dynamics of student numbers in Polish private institutions are sufficiently ahead of the respective index of their Ukrainian counterparts.

In world countries, including those with a well-developed private education sector, the share of tuition fees paid by individuals in the total revenues of institutions is rather insignificant. On average, tuition fees comprise 10 % or more of the revenues of state higher education institutions, including 13 % in the poorest countries and 15-17 % in the countries with moderate income. Therefore, the revenue coefficient coming from tuition payments in higher state education institutions is 2 in France, 4 in Japan, 9 in China, 10.5 in New Zealand, 20 in Singapore and Spain, 25 in the USA, 40 in South Korea, and 10 in the UK (Tedesco J. C., 1977, page 79; Higher education…, 1994, page 42).

Tuition fees are roughly the same in Ukrainian and Polish private educational institutions. They are also not high when compared to global standards. Annual tuition fees for the most expensive study programs do not go above USD 2,000, and affordable tuition fees do not exceed USD 1,000 per year due to the limited financial capacities of Polish society. In most private institutions, revenues from tuition fees amount to 90 % or more of total earnings. Thus, tuition fees make up the largest share of resources.

Overall, people tend to agree that private educational institutions show effective financial management. For instance, expenditures related to the maintenance of administration are much lower in these institutions, than they are in state universities. In general, expenses associated with implementing similar study programs (notably, programs that are maximally similar in terms of quality) are 20-30% lower in private institutions, than in state ones (without taking into consideration the funds allocated for academic research).

4.10.6. Education Structure

During the 1990s, the total of young people enrolling in vocational/ technical colleges and I—II accreditation level universities was decreased continuously; simultaneously, the total amount of students enrolling in III—IV accreditation level universities almost doubled. Both economic and demographic factors can provide an explanation for such tendencies.

The crisis in the Ukrainian economy manifests itself in a substantial decrease in production (especially industrial) and thus, in a decrease in the demand for workforce. Consequently, the enrolment and graduation numbers decrease in the institutions of vocational and associate (junior specialist) levels of training. While in 1985 the share of graduates from vocational schools and I—II accreditation level higher education institutions comprised 81.6 % of total graduates, in 2004, the figure dropped to 57.7 % (Table 4.43).

Table 4.43

GRADUATES OF VOCATIONAL SCHOOLS IN UKRAINE, 1985/86—2004/2005 academic years *

	1985/86		1990/91		1995/96		2000/2001		2008/09	
	thousand	%	thousand	%	thousand	%	thousand	%	thousand	%
Graduates from vocational schools	427.9	52.5	376.7	50.7	274.9	44.8	263.2	39.9	246.5	28.3
Higher education institutions (1st, 2nd accreditation levels	236.9	29.1	228.7	30.8	191.2	31.1	156.1	23.7	118.1	13.6
Graduates from higher education institutions (3rd, 4th accreditation levels	150.6	18.5	136.9	18.5	147.9	24.1	240.3	36.4	505.2	58.1
Total	815.4	100	742.3	100	614.7	100	659.6	100	869.8	100

* Compiled according to: Pawłowski, K., 2005; Key indexes…, 2009.

The data on the enrolment type and profession choices of secondary school graduates is telling in this regard. For instance, such Germanic European countries as Austria, Belgium, Germany, the Netherlands, Luxembourg, Switzerland as well as Italy see up to 65% of young people enrolling in vocational schools after the completion of their secondary education. In Scandinavian countries, France, and the United Kingdom only 20-40 % of young people enter the vocational education system.

The 1990 law in Poland established a two-stage process for higher education comprising a 3-year course of professional training resulting in such titles as licentiate or engineer and a complementary 2-year master's level course. Today, looking back on this format, it can be confirmed that the first stage did not receive adequate social support and the vast majority of graduates continue their studies to receive a master's degree.

While analyzing the structure of higher Polish education, one should take into consideration that the state institutions that were narrowly specialized before 1990, later used their academic autonomy to substantially expand the spectrum of their study programs and enriched it with specializations that are particularly popular in today's job market. For example, technical education institutions, as well as some agricultural and pedagogical universities today are training a much larger student population in their business-related study streams. Students in these programs, both state and private, are primarily self-funded (enrolled in correspondence studies).

The present and long-term potential of Poland's higher education in the early 21st century can be more clearly presented on the basis of the data on first-year, full-time admissions (the data for 2002 is presented in Table 4.44).

Table 4.44

STRUCTURE OF FIRST-YEAR, FULL-TIME ADMISSIONS IN POLAND

Educational institutions	Total full-time, first-year students	Percentage
State universities	68,035	28.4
Non-state university-type institutions	2,360	1.0
Technical institutions	63,375	26.5
Economics institutions, including: — state — non-state	26,099 7,324 18,775	11.0
Agricultural institutions	16,251	6.8
Pedagogical institutions	13,944	5.8

Table 4.44, continued

Educational institutions	Total full-time, first-year students	Percentage
Vocational higher education institutions, including: — state — non-state	28,952 18,903 10,049	12.1
Medical institutions	6,988	2.9
Physical education institutions	3,476	1.4
Art institutions	1,801	0.8
Other	7,981	3.3
Total	239,262	100

Source: Pawłowski K., 2005.

Higher Polish education has a large potential in specialized vocational education, specifically in the sphere of polytechnic and medical education. This is an important factor in reaching competitive advantages in the context of the EU. The share of private educational institutions' full-time admissions in 2002 was about 17 % of total admissions.

There is one characteristic feature of both the Ukrainian and the Polish higher education systems: a post-1990 growth of students in business study streams. In the 2002/03 academic year, these students totalled 460,000, including 154,000 full-time students and 306,000 correspondence students. Table 4.45 illustrates admissions to business streams in various types of higher education institutions.

We can ascertain that the number of seats in business programs exceeds demand on the job markets and that a decrease in first-year admissions (particularly, full-time) is inevitable. This, in its turn, results in strong competition for student enrolment between the institutions, which is not always beneficial for the education system. Competition for incoming students could cause the lowering of the quality of education and admissions standards (which is inevitable in the expansion of the scope of education).

A limited number of state-funded admissions in full-time programs and practically unlimited admissions into paid correspondence or evening study programs characterize higher state education in Poland. This is a result of the limited capacities of the state budget (the number of state-funded, first-year admissions in state institutions is slightly above 200,000, while the total annual number of admitted applicants is about

470,000). Another feature worth noting is the absence of the citizens' constitutional right to free education. In this context, private institutions (which are not recipients of state grants) are limited in their ability to compete with state institutions, especially when it comes to full-time education.

Table 4.45

NUMBER AND PERCENTAGE OF STUDENTS IN BUSINESS STREAMS IN EDUCATIONAL INSTITUTIONS OF VARIOUS TYPES

Type of institution	Full-time education		Correspondence studies	
	Total students	%	Total students	%
Polytechnic	34,139	22.2	38,555	12.6
State economics institutions	29,044	18.9	38,225	12.5
Private economics institutions	35,441	23.0	167,797	54.9
Universities	31,743	20.6	40,718	13.3
State agricultural institutions	6,842	4.4	8,379	2.75
State pedagogical institutions	2,761	1.8	4,730	1.55
State vocational institutions	13,947	9.1	7,376	2.4
Total	153,917	100.0	305,780	100.0

In practice (with a few exceptions), private institutions do not receive aid from state or local authorities. However, during the past eight—nine years, several dozen such institutions (at least 30) of the 252 established institutions were able to build their own material foundation, which makes them competitive relative to state institutions in terms of a study environment. At the time of their emergence, with only few exceptions, private higher education institutions did not have the required funds and began by renting buildings and premises, gradually building up their financial base (mostly from tuition fees) and investing in their material infrastructure.

4.10.7. Demographic Situation

Demographics is another factor that will substantially influence education and the job market in the near future. Unfortunately, it will adversely affect the scale of the development of education in both Ukraine and Poland.

Birth rate is a key factor in the possible scope of the education system; birth rate is, in its turn, influenced by many socio-economic factors and has been constantly decreasing over the past years. Both countries have been registering catastrophic declines in birth rates since the 1990s, which resulted from radical transformations in society and the lowering of the population's socio-economic state.

High birth rates registered in the early 1980s caused an increase in pupils graduating from secondary schools in 2006-2007. A decrease of birth rates beginning in 1990 will result, first and foremost, in the reduction of the number of students attending primary school, then a decrease in the number of those attending junior and senior secondary school. The total number of students is the key index in determining school network capacity, demand for teaching staff and necessary financial resources. In the future, birth dynamics will become a key determinant of the existing amount of labor supply in the country.

In the current complicated situation on the job market and a somewhat high unemployment rate among young people (according to some data, they comprise a third of total unemployed), and a high rate in the inflow of the new workforce will continue increasing the tension in the employment sector. It could be possible to alleviate the situation by actively involving minors into continued higher education, which is exactly the case in today's Ukraine. However, this process, regardless of all its positive aspects, could have controversial socio-economic consequences if the job market cannot provide commensurate work places for graduates. The activation of entrepreneurial activity, an increase in, and comprehensive structural development of production could improve the situation. This development should be through an increase in the number of enterprises of various forms of ownership (private, state, collective, combined), the transformation of the sector structure of the economy and its orientation towards contemporary high technological sectors.

4.10.8. Conclusions

It is important for the present-day Poland and Ukraine to consider global experience in the changes that occurred in education during the late 20th — early 21st centuries. It is necessary to analyse the specific features of reforms in education in various countries in order to avoid repeating their mistakes and to implement changes in a very balanced, non-radical manner. It is necessary to be particularly careful about privatization in education. Although an expansion of private education is a feature of the modern world, a leading role in this process belongs

to the state virtually everywhere in the world. Ensuring the high quality of education based on the unification and standardization of educational services should simultaneously maintain the tendency to preserve the national particularity and uniqueness of our education system and its positive experience, which has been accumulating over the centuries.

The civilized world understood long ago that society's reckless orientation towards market values could be ruinous. Society can only be strong in its citizens, for whom social purposes are important, for whom spiritual values carry real weight: patriotism, pride in their own country, and responsibility for its fat, etc. and whose mentality is not simply composed of views on and tastes in consumer goods. The words of George Soros, a famous patron and financial expert who made a fortune on stock markets, are telling in this respect. Overtaken by the necessity of understanding the historical and global meaning of today's society, he writes in Open Society: Reforming Global Capitalism (published in 1998; in Ukraine — in 1999): «I am deeply convinced, that the market value, that are so widespread now, are not what is necessary for the successful functioning of society» (Soros, G., 1999 : 222). He expresses his deep concern about the fact that market values penetrate more and more into spheres that are not traditionally common for such values.

The problem of our countries is not to override the existing strengths of these systems, when pursuing the direction of market transformation, including those in education. The spiritual component, oriented towards the highest human values, has always been fundamental in the development of our education, regardless of the influence of ideology, an isolated nature of education systems, and their inability to respond to innovations and to worldwide progress in science and technology. Therefore, the reforms that are objectively necessary and implemented today, have to pursue one goal, namely the preservation and expansion of the cultural heritage and wealth of a state.

4.11. The Economic Convergence of Poland and Ukraine in the Context of Real and Regulatory Processes

4.11.1. Introduction

The growth rates of real GDP and GDP per capita, as well as the rates of investment, unemployment and inflation, are a good reflection of the convergence of countries. Our selection of variable indices for macroeconomic research into convergence relies on the following factors:

1. GDP *per capita* is considered to be the best, although imperfect, indicator of economic development.

2. Along with neoclassic models of economic growth (Solow, 1956; Mankiw, Romer, Weil, 1992), as well as the investment rate according to Keynes (Harrod, Domar, Kalecki), GDP is an essential indicator of the accumulation of human capital and knowledge in the sphere of research and development. It is a widely outlined determinant of economic growth[43].

3. The unemployment rate is a measure of the non-utilization of labor potential. It demonstrates the extent of employees access to existing jobs on the market, also characterizes the degree of structural non-adjustments to such market aspects, as demand and supply.

4. The inflation rate, as a measure of price stability in the economy, also reflects the effectiveness of a macroeconomic policy (monetary and fiscal).

Research into the evolution and transformation of economic systems (see paragraph 2.2) imply the existence of a correlation between changes in the sphere of regulations and the real course of economic processes. Freedom to execute transactions creates opportunities for the spontaneous development of tools, institutions and market mechanisms similar to consummate competition, as well as an explicit mechanism of price formation, which is a fundamental condition for the functioning of effective markets. From this perspective, we can analyse the convergence of regulatory processes in Poland and Ukraine, measured by economic freedom indices, namely the limitation of political rights and civil liberties, as well as monitoring research.

Ukrainian experts and reputable academicians often justify the selection of the Russian model of economic development for Ukraine. For comparison reasons, the analysis of the convergence of real processes and regulations is inclusive of the EU-15 countries, the countries who acceded to the EU along with Poland in 2004 (EU-8)[44], as well as the European and Transcaucasian countries of the Commonwealth of Independent States (CIS), such as Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Russia.

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[43] Due to the lack of comparable statistical data pertaining to the accumulation of human capital and knowledge in research and technology (particularly, in the European and Transcaucasian countries of the CIS), knowledge related to formulation is primarily focused on the formation of stop investments in material capital.

[44] We will later use the term «the EU-7» with reference to the same group of countries without Poland.

4.11.2. Dynamics of Major Macroeconomic Variables in Poland and Ukraine Relative to the EU-15, EU-7, and the CIS states

On the brink of systematic transformation in post-socialist countries (1990)[45], the level of development of Ukraine measured by GDP per capita was 23 % higher than that of Poland. At the same time, both countries were clearly lagging behind Western Europe — the mentioned indicator for Poland was on average equal to 35 % of that of the EU-15, while in Ukraine it amounted to 43 %. Figure 4.15 illustrates this.

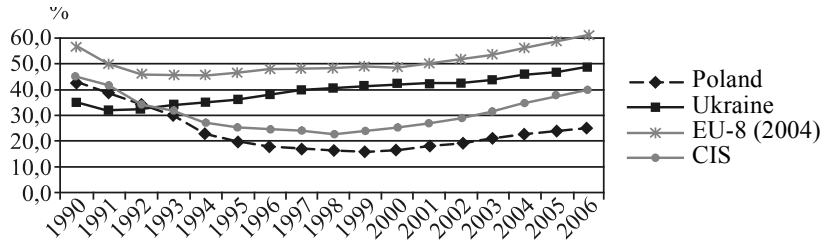

Figure 4.15 GDP Per Capita in Some Countries Relative to Western Europe (GDP Per Capita in the EU-15 = 100); USD Based on PPP, Constant Prices Since 2000

Source: calculated by the author as per statistical data available at http://w3.unece.org/pxweb/Dialog/

Until 1991, the relative difference between Poland and Ukraine did not change essentially; however, the distance between these two states and the EU-15 increased. This marked the beginning of vital divergence between Poland and Ukraine. In 1992, the GDP per capita index of those two economies became equal, and in the following years, Poland dynamically increased its advantage. In 1999, GDP per capita in Ukraine amounted to only 38 % of that of Poland. In 1992—1999, Poland consistently reduced its distance from the EU-15, while for Ukraine the gap continued to increase. The above-mentioned tendencies began to change fundamentally in 2000, as Ukraine started making moderate efforts to tackle the «past collapse» relative to Poland. In 2006, GDP per capita in Ukraine amounted to 51 % of that of Poland. At the same time, Ukraine started converging with EU-15 countries: in 1999, GDP per capita in Ukraine did not exceed 16 % of that of the EU-15, and in 2006, the percentage increased to close to 25 %. We should note that this result

[45] The acceptance of this date as initial for research presented in this material stems from the accessibility of the data compared. One should not forget that the exact date of the beginning of transformation varies in different post-socialist economies.

is expressly different from that of 1990; in the same period, the GDP per capita in Poland increased to more than 48 % relative to the average in EU-15 countries. Therefore, taking into consideration the entire analyzed period, we can ascertain that the Polish macro economy was catching up with the economies of EU-15 countries, while Ukraine was moving further away from both the countries of Western Europe and Poland.

Trying to identify similarities in the economic development in a larger group of countries, including the EU-7 and the CIS countries, it is possible to see certain similarities between Poland and the EU-7 countries, as well as between Ukraine and the CIS states. In a relatively short period of divergence, at the beginning of the 1990s, the EU-7 countries, similar to Poland, started the process of systematically reducing the distance from the EU-15 countries. The period of growing dissimilarities with respect to the EU-15 countries was longer, and the pace of eliminating such similarities until 2000 was slower than that of Poland. However, from that point on, the process of convergence with the EU-15 in those countries was faster than in Poland. Therefore, in the 1990s, the gap in GDP per capital in Poland and an average index for the EU-7 countries (in 1990, GDP per capita in Poland was equal to 62 % of that in the EU-7; in 2000 the index grew to 86 %). However, later on, the distance between Poland and the EU-7 countries began to increase again. The above-mentioned ratio in 2006 amounted to close to 79 %, which means that Poland clearly drew closer to this group of countries within the analysed period.

In the context of the above-mentioned tendencies, it is not surprising that until 2000, the distance between Ukraine and the EU-7 countries continued to grow and it was only in 2001 that the economies began to gradually draw closer together. At the same time, analogies between Ukraine and the analysed CIS countries are obvious. These two cases mark a prolonged period of deteriorating indices relative to the EU-15; the tendency only ceased to exist at the turn of the 20th and 21st centuries, when the divergence between the CIS countries and the EU-15 slowed down. The situation improved earlier than expected (1999). Thus, the reduction of Poland's lagging behind was more dynamic than that of Ukraine. Consequently, in 2006, the distance between the CIS and the EU-15 was approximately 15 percentage points less than that of Ukraine, contrary to a similar situation in 1990. Of the group of analyzed CIS countries, only Georgia and Moldova demonstrated declining GDP per capita, approaching that of Ukraine (as compared to those of 1990 and 2006).

The above-mentioned processes of drawing closer or drifting away within the boundaries of the analyzed group of countries emerge directly from distinctions in the dynamics of economic growth (Table 4.46).

Table 4.46

GDP PER CAPITA, GDP DYNAMICS IN POLAND AND UKRAINE RELATIVE TO THE EU-15, EU-7, AND CIS COUNTRIES IN 1990—2006 (USD based on PPP, constant prices since 2000)*

Country	GDP per capita				GDP growth dynamics			
	1990—1995	1996—2001	2002—2007	1990—2007	1991—1995	1996—2001	2002—2007	1991—2007
Poland	**7,293**	**9,756**	**12,231**	**9,760**	**2.2**	**4.7**	**4.5**	**3.9**
Ukraine	**6,673**	**4,004**	**6,035**	**5,571**	**–13.7**	**0.2**	**7.6**	**–1.8**
EU-15	21,358	24,029	26,604	23,997	1.6	2.8	2.0	2.2
EU-7	10,349	11,681	15,275	12,435	–2.3	3.3	5.4	2.3
CIS	7,310	5,918	9,466	7,565	–9.4	2.4	7.3	0.4

* Calculated on the basis of statistical data available on the following website: http://w3.unece.org/pxweb/Dialog/

The initial period of market reforms in Poland's economy, similar to that of other countries of the post-Soviet bloc, saw a decline of GDP, i.e. transformation regress. On the conclusion of the regress, a process of continuous economic growth started (Figure 4.16). Taking into consideration the international context, we should add that the transformation regress was the shortest for Poland (terminated in 1991) and long lasting for all the countries transiting from a centrally planned economy (GDP decline in 1990 — close to 7 %) (Kołodko, 1999; Fisher, Sahay, 2000; Neneman, 2000; Tokarski, 2006). For instance, in 1994, GDP in Poland exceeded the more than 4 % GDP of 1990, and in 2006, it was almost 79 % higher than the GDP of 1990. The average annual growth rate in 1991—2006 in Poland amounted to 3.76 % and was higher than the average growth rate for the EU-15 countries (2.1 %), as well as the EU-7 (1.9 %). Among the EU and the CIS countries in the analyzed period, only Ireland, Luxemburg and Azerbaijan were developing faster than Poland, while Cyprus and Malta were developing at the same pace (Tokarski, 2006). This attests to the great success of the course of Polish transformation on the macroeconomic level at that time, apart from associated mistakes (for more information, please see: Kołodko, 2007; Sadowski, 2007; Welfe, 2007 or Zienkowski, 2007).

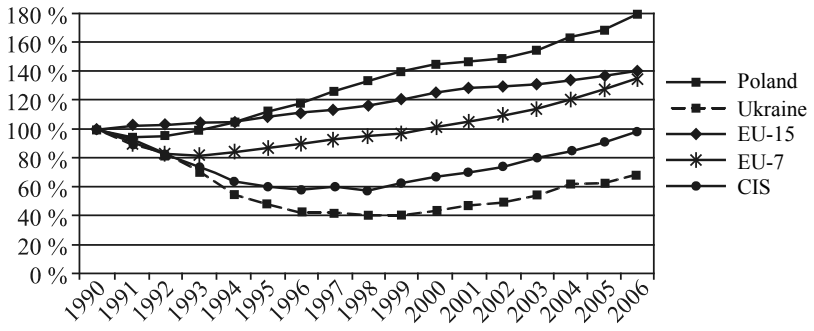

Figure 4.16 GDP Dynamics in the Selected Countries in 1991—2006 (USD based on PPP, Constant Prices since 2000)

Calculated on the basis of statistical data available on the following website: http://w3.unece.org/pxweb/Dialog/

Meanwhile, in Ukraine, the transformation regress only ceased to exist in 2000, and the aggregate production slump exceeded 59 %. In 2000—2006, dawned the time of decisive changes and Ukraine began to develop dynamically, with an average growth rate of 7.4 %. However, in 2006, the GDP in Ukraine amounted to almost two thirds of the 1990 level, with the average annual growth rate not exceeding 1.95 %. This vividly illustrates the tendency of the same extent of Ukraine's divergence from both the EU-15 and Poland.

In 1991—2006, the EU-7 countries demonstrated a considerably smaller average annual GDP growth rate than that of Poland. This was a product of a prolonged transformational regress and growth dynamics relative to the year 2000, which were weaker than the Poland. However, we should note that every country included in this group managed to tackle such recession processes as early as in the first half of the 1990s (in 1995 the latest, Lithuania and Estonia achieved a positive growth pace), i.e. significantly earlier than Ukraine. In 2000, the total GDP for these economies exceeded the 1990 level, which Ukraine has not yet managed to accomplish. One should also not forget about the EU-7 growth rate (particularly that of the Baltic States) after 2000, which permitted the gradual reduction of the gap in development between such countries and the countries of Western Europe.

In addition, in 1991—2006, the analyzed CIS countries attained better economic results than Ukraine. In 2006, the total GDP of their economies approached the level of 1990, which means that the average growth rate is close to zero. We should also note that in terms of GDP dynamics, the analyzed group of CIS countries is rather heterogeneous. For instance, Armenia, Azerbaijan, and Georgia demonstrated a dramatic (up to 40 %

per annum), but short-term production slump in the first years of transformation, while in Russia, the rate of the production slump during the regress period was not that noticeable, but even so, the country only managed to get back on the track of growth in 1999.

Trying to understand why the development path of Poland and Ukraine in the analyzed period was so different, one should first compare the course of transformation reforms in these two countries. The analyses of the Ukrainian transformation (Kołodko, 1999; Hrycak, 2000; Neneman, 2000; Klich, Kryuchkova, Sidenko, 2004; Wilson, 2004 or Teczke, 2006) demonstrate that Ukraine's negative dynamics in the 1990s is rooted in the institutional flaws pertaining to the inconsistency of Ukrainian economic reforms, which we will talk about later on in the section. In Poland, unlike Ukraine and similar to the other EU-7 countries, the explicitly defined and consistently implemented strategy gave an impetus to the opening of economies and their integration in the European market. It brought success, which may serve as a model for the continuous transformation of Ukraine's economy.

Among the numerous, widely discussed properties of one of the indexes, which is GDP in the welfare dimension, we call mention its synthetic nature. The most widely used measures of this type of life quality include the Human Development Index (HDI) or Sustainable Net Benefit Index (SNBI) (Woźniak, 2004, c. 29—30; Lawn, 2005). The United Nations Organization contributed to the development of the index in 1990. The index relies on the following indices: (*a*) average life expectancy reflecting health condition, (*b*) illiteracy index and years of schooling reflecting the level of education, and (*c*) GDP per capita according to PPP as a measure of a standard of living (Borys, 2007, page 286; Low, Aw, 1997, page 1—17; Kołodko, 2008).

We can learn about the above-mentioned index by analyzing the convergence of Poland and Ukraine. Table 4.47 illustrates relevant quantitative variables in 1975—2005.

Table 4.47

HUMAN DEVELOPMENT INDEX FOR POLAND AND UKRAINE RELATIVE TO THE EU-15, EU-8 AND CIS *

Country	Ranking	1975	1980	1985	1990	1995	2000	2005
Poland	**37**				**0.806**	**0.822**	**0.852**	**0.87**
Ukraine	**76**				**0.809**	**0.756**	**0.761**	**0.788**
Average for the EU-15		0.847	0.861	0.874	0.893	0.915	0.931	0.944
Average for the EU-8		0.786	0803	0.814	0.823	0.815	0.847	0.874
Average for the CIS			0.700	0.722	0.778	0.733	0.748	0.768

* Developed by the author: www.wedrujacyswiat.pl

The above-given data illustrates that in 1990, Ukraine demonstrates a better HDI than Poland; the spread was smaller than the distance measured by GDP per capita. One should also note the relatively high value of this index in the two economies relative to the countries of Western Europe, primarily resulting from relatively well developed systems of formal education in the countries of the socialist bloc. From the very beginning, HDI transformations in Poland and Ukraine had their distinctions. While Poland experienced systematic improvement, the index was dropping in Ukraine and the tendency diminished only at the beginning of the 21st century. We can note that divergence between Poland and Ukraine in the transformation period, particularly in the 1990s, covered not only profitable aspects of the quality of public life. Other alternative welfare indicators also illustrate this, which implies that, according to subjective assessments, Ukraine has the lowest quality of life among all countries undergoing transformation[46].

The differentiated dynamics of economic growth in Poland and Ukraine were equally a product of such factors as demand and supply. Amidst demand factors, various tendencies in the sphere of investment come to the fore, which is the principal reason for divergence between Poland and Ukraine in the analyzed period. The greatest distinction between those two countries in the group of proposal factors is in the sphere of the utilization of human resources measured by the unemployment rate.

The Ukrainian economy entered institutional transformation with a very high level of investment relative to that of other post-socialist economies (particularly countries of the former USSR). They were primarily the result of the excessive development of capital-intensive sectors of the economy and the core of the heavy industry, thus rendering possible the production of goods satisfying the weapons needs of the USSR and the member states of the Warsaw Pact. According to official statistics, in 1990 Ukraine's share of investment in GDP amounted to 48.8 %, while in the majority of market economies the variable fluctuated around 20 %. Such a high level, as well as a flawed structure of investment, led to a situation whereby in the context of new political conditions following the collapse of the Soviet Union, as well as the gradual introduction of the principles of business planning, resulted in a destructive fall, as illustrated in Figure 4.17. In 1990—1996, the level of investment in Ukraine fell by 30 percentage points, which largely explains an essential slump in production during this period.

[46] Specifically, the index of a subjective assessment of welfare is becoming increasingly popular (Kołodko, 2008).

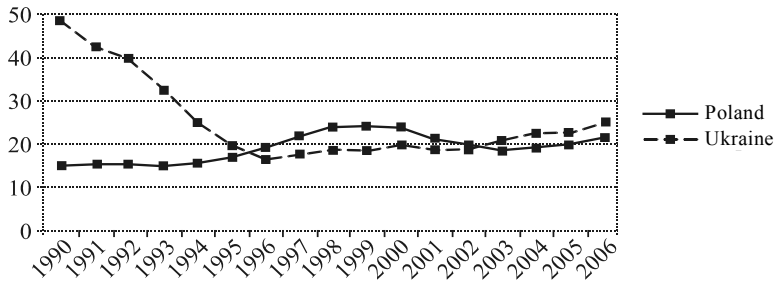

Figure 4.17 Investment in Poland and Ukraine
in 1990—2006 (% of GDP)

Calculated as per statistical data available at: http://w3.unece.org/pxweb/Dialog/

In 1990-1995, investment in Poland remained at a very low level (on average 15.5 % of GDP), tending to grow insignificantly. We can consider that in the first years of transformation in Poland, the impulse towards a production decline was weaker than that in Ukraine and a tendency of investment inflows was accelerating. Thus, positive advancements on the microeconomic level began considerably earlier in Poland than in Ukraine. This was followed by structural changes in the entire economy.

Opposite tendencies in the dynamics of investment inflows, in 1995—2000, resulted in investment in Poland exceeding that in Ukraine, achieving a higher level than in the majority of EU-15 countries (though it was lower than in the majority of EU-7 countries). The level of investment in Ukraine (on average 18.4 % in 1996—2001) was lower than that of all CIS and EU-7 countries, as well as the majority of EU-15 countries. The situation started to improve after 2001, after Ukraine became more inclined towards investment than Poland. In this period, investment in Poland was lower than that in Russia or Belarus, while all European and Transcaucasian countries, including CIS countries, outstripped Ukraine. During rapid economic growth in Ukraine in 2002—2006, of the EU-7 countries, only Lithuania demonstrated a higher level of the accumulation of investment than that of Ukraine.

An inconsistent and unbalanced transformation of Ukraine's economy could not initiate relevant tendencies of effective economic growth or make compensation of GDP losses possible, which led to declined investment, as a result of the refusal of the national economy to utilize the central planning mechanism. The processes had an impact on the labor

market, since the above-mentioned tendencies in Ukraine were fundamentally distinctive from those in Poland (Figure 4.18).

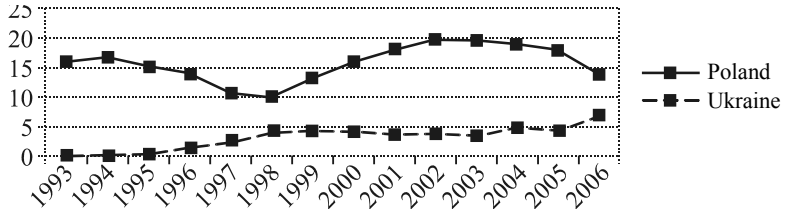

Figure 4.18 Unemployment in Poland and Ukraine in 1993—2006 (%)

Source: statistical data on the website http://w3.unece.org/pxweb/Dialog/ (for Poland) and from the Economic Survey of Europe No. 1/2005 available at http://www.unece.org/ead/survey_new.htm i www.ukrstat.gov.ua (for Ukraine)

The stabilizing and balancing «shock therapy» implemented in Poland caused a transformational regress as early as in 1994, as unemployment reached close to 17 %. In Ukraine, similar to the majority of former USSR economies, the unemployment rate was extremely low until 1995 and continued to be on a low level. Throughout the analyzed period, its average remained lower than that of Luxemburg[47] or EU-15 countries with the lowest unemployment rate.

Unusually high unemployment rates in Poland, relative to those of Ukraine or the EU-15 countries, resulted from not only a transformational shock, intensive liberalization and the deregulation of the markets of production factors, but also accelerated privatization and the effects of competition from open markets, which put pressure on the effective improvement of the utilization of production stock. Meanwhile, Ukraine sustained a consistent balance as a result of the lack of decisive actions — a legacy of the centrally planned economy, and latent unemployment. The turmoil continuing in the following years made the reduction of latent unemployment impossible, particularly in the state sector of the economy due to the combination of high rates of production decline and unemployment. It is possible to see similar tendencies in other European and Transcaucasian countries of the CIS, where the total number of employed reduced at a slower pace than the GDP.

The new economic strategy implemented in Poland in 1994—1997 delivered significant results pertaining to the reduction of unemployment (by 6 percentage points). Only a slowdown of

[47] Luxembourg has the highest GDP per capita index and the lowest level of unemployment (about 2 %). (*Note. Ukrainian editors*)

development dynamics in association with high production growth in 1999—2002 increased the unemployment rate. The tendency changed after 2003 along with accelerated economic growth, an increase in the number of jobs and demand for labor (Kwiatkowski, Tokarski, 2000, 2007; Rogut, Tokarski, 2001, 2002, 2007; or Tokarski, 2005, section 3). Poland's accession to the EU, as well as the migration of Polish labour migrants primarily to Great Britain and Ireland, had an essential impact on the drop of unemployment in Poland after 2004. We should note that unemployment in Poland in the researched period was at a higher level than that in the EU-8 countries.

Ukraine demonstrates symptoms of recovery pertaining to the creation of new jobs starting in 2000, when a rapid GDP growth was recorded, combined with stabilization of real unemployment at a level close to 4 % and high growth of production, as well as a decline of latent unemployment. One could observe similar tendencies in other analyzed CIS countries, apart from Russia and Armenia, where the unemployment rate continued to drop (Kwiatkowski, Roszkowska, Tokarski, 2004; Adamczyk, Tokarski, Włodarczyk, 2006 or Tokarski, 2006).

Deep and prolonged economic instability, which manifested itself in a high inflation rate, presented another adverse consequence of an inconsistent approach to the market economy in Ukraine. At the beginning of the 1990s, the problem of inflation was relevant to all economies undergoing systematic transformation. However, it was at a much larger scale in the CIS than in the EU-8 countries. At the same time, Ukraine recorded significantly higher price surge indices than Poland. The average inflation indicator in Ukraine in 1990—1995 amounted to over 1800 %. In Poland, the annual inflation rate, which is larger than the average for the EU-8 countries, does not exceed 130 % in this period (Figure 4.19).

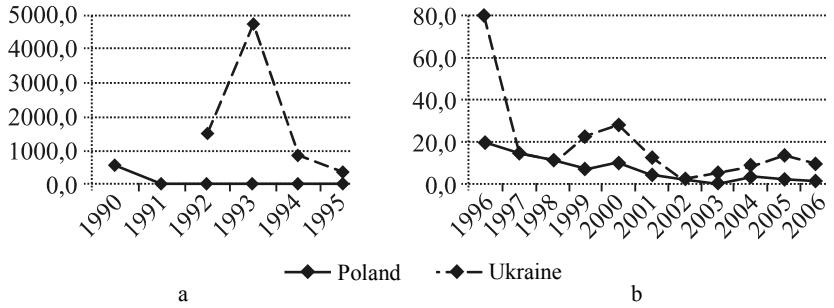

Figure 4.19 Inflation Rates in Poland and Ukraine in 1990—2006 (%, CPI index)

Source: statistical data available at: http://w3.unece.org/pxweb/Dialog/

In 1996—2001, the inflation rate dropped both in Poland and in Ukraine. The average inflation rate in Ukraine reached close to 30 %, while in Poland it was equal to over 11 %. Lower inflation rates were recorded in the other EU-15 and EU-7 countries (except for Hungary). The turn of the century brought about similar indices of easily controlled inflation for both Poland (7.3 % in 1999) and Ukraine (0.8 % in 2002). However, starting in 2000, inflation processes tended to decline in Poland (except for 2004), while in Ukraine inflation tended to go beyond control again. In 2002—2006, the inflation rate in the Polish economy was close to that of the EU-15, while in the Ukrainian economy it was close to twice as high as the inflation rate in Greece, the economy of which was characterized by the lowest price stability among the EU-15 economies. We should note that CIS countries, particularly Belarus, Russia and Moldova, where inflation reached 10 %, experienced the worst problems with inflation in 2002—2006.

The comparison of inflation rates in Poland and Ukraine illustrates that in the past ten years while Poland managed to slow down and stabilize inflation at low and accepted political, economic and social levels, while in Ukraine inflation processes continue to present a threat to the economy's stability and development.

4.11.3. Convergence Effect

The theory of economic growth, or the application of economic convergence research, relies in its entirety upon the utilization of statistical and econometric methods (Tokarski, 2000; Barro, Sala-i-Martin, 2004).

The assessment of the parameters of the regression function, which permit the verification of the hypothesis about beta type (β) convergence in the analyzed groups of countries, has demonstrated that in most cases statistics were characterized by a very low degree of freedom, as well as very high critical values. We can find certain evidence of beta (β) convergence in the EU-8 countries in the analyzed period, in the sub-periods of 1990—1995 and 1995—2006, as well as in the CIS countries in 1990—2006. In view of low quantitative attempts (6-8 for the EU-8, as well as the CIS), these assessments are not sufficient for formulating specific solutions pertaining to the originating of convergence or divergence in the analyzed groups of countries. The results of this statistical analysis would have largely had the nature of a fictional

regression, which would have made the economic interpretation of received results impossible[48].

The results of beta (β) convergence assessments in the analysed groups of countries did not create grounds for assessing sigma (σ) type convergence[49].

Taking into consideration research results and the imperfections of the applied research procedure, we find it unreasonable to examine economic convergence by assessing the impact of investment and the effect of convergence on the growth of GDP per capita, relying upon the impact of GDP on living standards, which follows from the neoclassic growth model of Solow, 1956[50]. It makes sense to do research by extending the variable of the Solow model to the growth of aggregate output (GDP per person employed). However, during a prolonged period of growth, the dynamics of manufacturing and produced output for living usually overlap; therefore, the factors causing massive growth of production must also determine changes of GDP per capita. The above-given model suggests the following (see also Tokarski, 2007 : 168—169):

1) In the context of a steady state increase of the index, the indices of exogenous progress in Harrod's sense, represent growth of major variables of population levels (the index of technical progress illustrates directly increasing productivity of labor);

2) As an economy approaches the growth of output and capital per capita, *ceteris paribus* becomes higher when investment grows (which is perceived as investment participation in the GDP);

3) The effect of real convergence is conditional upon a reduction of productivity of local output factors and associated capital absorption of the coefficient of production processes, increasing along with capital per capita. The effect is based upon GDP per capita growing along with increasing capital per capita and GDP per resident (Tokarski, Gajewski, 2005 or Gajewski, 2007).

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[48] The calculation has been done synchronously for annual data for 1990—2006 for the EU-15, EU-8, and the CIS groups of countries, as well as for data for relevant sub-periods (1990—1995; 1995—2006, as well as 1990—2006). 1990 — the base year and 2006 — the final year; 1995 — the initial year, while 2006 — the final year, as well as 1990 — the base year and 1995 — the final year. The received results revealed either the low adjustment of the model to the empirical variable schedules or the low statistical significance of structural parameters, thus making it impossible to test the convergence hypothesis.

[49] The correlation of α, β, σ convergences was covered in sections 1 and 2 in more detail.

[50] Please go to Romer 1996; Woźniak 2004 for the principles of the development of the Solow model and its use in research into real convergence.

Analysing the dynamics of GDP *per capita*, one should utilize the equation of the indices of the growth of a macroeconomic variable as follows:

$$g_t \approx \Delta \ln(y_t) = a_0 + \alpha t - \gamma inv_t - \beta \ln(y_{t-1}), \quad (4.1)$$

where $g_t \approx \Delta \ln(y_t)$ represents a percentage growth rate of GDP per capita in economy *i* during period *t*;

t — time variable in natural numbers[51];

invt — investment rate in the period of *t*;

yt – 1 — GDP per capita in the period *t – 1;*

a0 $\in \Re$ a constant that (in the author's opinion) does not have a direct economic interpretation;

$\alpha \geq 0$ — depicts the impact of technical progress in Harrod's sense on the growth of GDP per resident;

$\gamma > 0$ is a parameter determining the impact of investment on the growth of output per resident in the period of approaching the Solow model long-term equilibrium;

$\beta \in (0;1)$ a parameter determining the intensity of the effect of convergence. Instead, α/β *determines the Harrodian rate of technical progress.*

If equation (1) applies to the 30 previously analyzed economies (the EU and CIS), it should read as follows:

$$g_{it} = a_0 + \alpha t - \gamma inv_{it} - \beta \ln(y_{it-1}), \quad (4.2)$$

where the subdocuments *i* (*i* = 1,2..., 30*)* belong to the following countries.

If in the equation (4.2) we assume that *t* changes annually by 1, this would imply that the growth rate of GDP per resident in the period of the dependent *t* (or *git*) depends on the investment rate in the period *t* (thus, *invit*), as well as on the GDP per capita in the period *t – 1 (yit – 1*). This assumption does not fully correspond to the reality of functioning economies. This emerges from the fact that the majority of current GDP per capita is affected by the value of GDP on the scale of the entire economy. In the context of a conjunctural cycle, this may not only be an effect of the current investment rate and GDP per

[51] The time variable *t* assumes the values of 1991, 1992, and 2006 in the below-given assessments of annual data; 1993, 1994 ..., 2006 for the assessment of three-year variable averages, as well as 1995, 1996 ..., 2006 for data calculated on the basis of five-year variable averages..

capita, but also a consequence of the impact upon the current GDP, whose factors are determined by demand in the economy. Therefore, in the author's opinion, it is safer to interpret time segments by an identical measure of GDP per capita, as well as the investment rate, applying, for instance, the procedure of the variable average *ex post*, as then variable macroeconomic time segments will emerge primarily from the impact of factors that come from the proposal side of the economy. Having agreed the time lines for labor and investment, we can replace the variable average of the equation (4.2) with the following dependence:

$$\overline{g}_{it}^{j} = a_0 + \alpha t - \gamma \overline{\overline{inv}}_{it}^{j} - \beta \ln\left(\overline{y}_{it}^{j}\right), \tag{4.3}$$

where

$$\overline{g}_{it}^{j} = \frac{\sum_{\tau=0}^{j-1} g_{i\tau}}{j}$$

$$\overline{\overline{inv}}_{it}^{j} = \frac{\sum_{\tau=0}^{j-1} inv_{i\tau}}{j},$$

as well as

$$\overline{y}_{it}^{j} = \frac{\sum_{\tau=0}^{j-1} y_{i\tau}}{j}, \tag{4.4}$$

where j denotes a series of calculated variable moving averages $\overline{g}_{it}^{j}$, $\overline{\overline{inv}}_{it}^{j}$, as well as $\overline{y}_{it}^{j}$ variable averages of the series j with a dependent variable and independent variables in the equation (4.3). The analysis presented below will utilize variable averages of the series j = 1, 3, and 5.

We should note that even after levelling the variable average for the variables $\overline{g}_{it}^{j}$, $\overline{\overline{inv}}_{it}^{j}$, as well as $\overline{y}_{it}^{j}$ in equation (4.3), *implicite* the assumption is made that in all previously researched economies the same growth rates of GDP per capita correspond to the same rates of investment and GDP per resident. Frequently, the assumption has no restrictions (primarily, in view of the lack of homogeneity of the researched material); therefore, the author decided to weaken it, applying

the procedure of constant diversification (*fixed effect*; see Pindyck, Rubinfeld, 1991, page 223—226). Then, the equation (4.3) will extend to become a dependency and will look as follows:

$$\overline{g}_{it}^{j} = a_0 + \sum_k a_k d_k + \alpha t + \gamma \overline{inv}_{it}^{j} - \beta \ln\left(\overline{y}_{it}^{j}\right), \tag{4.5}$$

where $a0 \in \Re$ is a constant in a so-called based economy[52];

dk — singe zero-sporadic for the following non-base economies;

and ak corrected for the constant $a0$ for non-base economies.

Furthermore, independent variables in the extended equation (4.5) include variable averages with inflation $\left(\overline{\inf}_{it}^{j}\right)$ and unemployment $\left(\overline{ur}_{it}^{j}\right)$ rates. Therefore, we can write the equation as follows:

$$\overline{g}_{it}^{j} = a_0 + \sum_k a_k d_k + \alpha t + \gamma \overline{inv}_{it}^{j} + \delta \overline{\inf}_{it}^{j} + \phi \overline{ur}_{it}^{j} - \beta \ln\left(\overline{y}_{it}^{j}\right) \tag{4.6}$$

Or (following the exclusion of the unemployment index from the equation (4.6)):

$$\overline{g}_{it}^{j} = a_0 + \sum_k a_k d_k + \alpha t + \gamma \overline{inv}_{it}^{j} + \delta \overline{\inf}_{it}^{j} - \beta \ln\left(\overline{y}_{it}^{j}\right), \tag{4.7}$$

Where δ and ϕ parameters describe the intensity of the impact (respectively) of inflation and unemployment indices upon the index of GDP per capita growth.

Evaluated by the method of least squares, the parameters of the equations (4.6—4.7) with variable averages of the series j = 1, 3 and 5 are presented in Table 4.48. Columns (*i*), (*iii*) and (*v*) (formula 4.6) take into consideration the assessments of equation parameters (4.6), while columns (*ii*), (*iv*), and (*vi*) take into account equation parameters (4.7).

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[52] The economy of Luxemburg, as the most typical among the discussed economies, is the base economy in the presented further assessments of the determinants of the indices of GDP per capita growth. The choice of a base economy is not more significant for the assessment of the parameters given with respect to independent variables in the quotations presented further on.

Table 4.48

EVALUATED PARAMETERS OF EQUATIONS (4.6—4.7)

Explanatory variable	Variable average series:					
	1		3		5	
	(*i*)	(*ii*)	(*iii*)	(*iv*)	(*v*)	(*vi*)
Base economy	–879.179(***)	–874.948(***)	–692.755(***)	–663.600(***)	–474.999(***)	–398.135(***)
Armenia	–12.694(**)	–12.109(*)	–8.534	–7.410	–1.788	0.788
Austria	–6.156(***)	–6.050(***)	–5.346(***)	–5.155(***)	–4.061(**)	–3.606(**)
Azerbaijan	–18.014(***)	–19.172(***)	–14.909(**)	–15.446(**)	–7.109	–6.939
Belgium	–6.775(***)	–5.771(***)	–5.767(***)	–4.733(***)	–4.623(**)	–2.956(*)
Belarus	–16.664(***)	–17.315(***)	–12.316(**)	–12.465(**)	–5.882	–5.335
Czech Republic	–12.617(***)	–11.978(***)	–11.325(***)	–10.506(***)	–9.363(***)	–7.753(**)
Denmark	–5.144(***)	–4.696(**)	–4.223(**)	–3.724(**)	–2.925(*)	–2.075
Estonia	–11.921(***)	–10.665(***)	–10.194(***)	–8.693(**)	–6.964	–4.271
Finland	–7.107(***)	–5.516(***)	–5.567(***)	–3.927(**)	–4.135(*)	–1.575
France	–7.458(***)	–6.083(***)	–6.250(***)	–4.871(***)	–4.952(**)	–2.777
Greece	–8.472(***)	–7.269(***)	–7.092(***)	–5.800(***)	–5.092(*)	–2.915
Georgia	–19.247(***)	–18.403(***)	–15.897(**)	–14.522(**)	–10.182	–7.181
Spain	–11.161(***)	–8.920(***)	–9.679(***)	–7.446(***)	–8.424(***)	–4.966(**)
The Netherlands	–5.531(***)	–5.364(***)	–4.638(***)	–4.394(***)	–3.270(**)	–2.758(*)
Ireland	–4.494(**)	–4.187(**)	–3.312(*)	–2.950(**)	–2.027	–1.294
Lithuania	–11.424(***)	–9.756(**)	–8.882(**)	–6.930(*)	–5.176	–1.812
Latvia	–13.072(***)	–11.476(***)	–10.262(**)	–8.475(**)	–6.756	–3.628
Moldova	–23.444(***)	–23.697(***)	–18.466(**)	–18.007(**)	–9.924	–8.180
Germany	–7.798(***)	–6.808(***)	–6.722(***)	–5.695(***)	–5.485(***)	–3.820(**)

Explanatory variable	Moving average series:					
	1		3		5	
	(*i*)	(*ii*)	(*iii*)	(*iv*)	(*v*)	(*vi*)
Poland	–12.480(***)	–10.055(***)	–10.252(***)	–7.775(**)	–7.534(*)	–3.574
Portugal	–11.045(***)	–10.689(***)	–9.659(***)	–9.150(***)	–7.194(**)	–6.125(**)
Russia	–15.068(***)	–14.166(***)	–12.107(***)	–10.904(**)	–7.407	–5.027
Slovakia	–15.069(***)	–12.512(***)	–13.288(***)	–10.661(***)	–11.365(***)	–7.083(*)
Slovenia	–11.109(***)	–10.578(***)	–9.435(***)	–8.720(***)	–6.860(**)	–5.433
Sweden	–4.783(**)	–4.140(**)	–3.662(**)	–2.933(*)	–2.159	–0.915
Ukraine	–17.512(***)	–18.086(***)	–14.102(***)	–14.251(***)	–7.742	–7.187
Hungary	–11.576(***)	–11.109(***)	–9.196(***)	–8.544(***)	–5.854	–4.470
Great Britain	–5.040(**)	–4.481(**)	–3.747(**)	–3.129(*)	–2.081	–1.007
Italy	–7.931(***)	–6.666(***)	–6.808(***)	–5.503(***)	–5.582(***)	–3.469(*)
T	0.473(***)	0.473(***)	0.374(***)	0.360(***)	0.251(***)	0.213(***)
$\overline{inv}$	0.413(***)	0,392(***)	0.408(***)	0.391(***)	0.454(***)	0.429(***)
$\overline{\text{inf}}$	–0.00433(***)	–0.00452(***)	–0.00773(***)	–0.00803(***)	–0.0106(***)	–0.0111(***)
$\overline{ur}$	0.230(**)	–	0.207(**)	–	0.292(***)	–
$\ln(\bar{y})$	–6.650(***)	–6.963(***)	–5.614(***)	–5.731(***)	–3.199	–3.064

Continuation of Table 4.48

Explanatory variable	Moving average series:					
	1		3		5	
	(*i*)	(*ii*)	(*iii*)	(*iv*)	(*v*)	(*vi*)
R2 skor R2	0.4960.451	0.4900.446	0.6080.566	0.6030.562	0.6840.643	0.6770.635
DW	1.553	1.519	1.751	1.691	1.951	1.815
Base economy	Luxemburg					
Total observations	416		356		296	
Period	1991—2006		1993—2006		1995—2006	

Notes: R2 — causality coefficient; skor. R2 — adjusted causality coefficient; Дβ —Durbin–Watson statistic; (*) — changes are materially statistical by 10 % of the level of materiality; (**) — changes are materially statistical by 5 % of the level of materiality; (***) — the changes are materially statistical by 1 % of statistical significance[53], Armenia and Austria itd.- variable zero-sporadic for the following non-base economies.

[53] The fact that this variable is materially statistical by 1 % (5 %, 10 %) of the level of materiality means that assuming that such variable is materially statistical we commit one error per 100 (20, 10) times.

We can make the following conclusions based upon the assessment of the parameters of these quotations presented in Table 4.48:

- The evaluation of the parameters of equations (4.6—4.7) for the given annual data implies that the growth rate of GDP per capita of the preceding materially statistical, depends on investment, inflation and the effect of convergence (by 1 % of the level of materiality), as well as on the unemployment rate (by 5 % of the level of materiality). However, the assessment of the equation parameters (4.7) indicate that the rate of investment, the rate of inflation, and the effect of convergence explain the growth rate of GDP per capita in the analysed group of countries by 1 % of the level of materiality. The variables explained in equation (4.6) for the given annual data explain the changes of unsteadiness (or the formation of the growth rate of GDP per capita) interpreted as 45 %.
- We can come to such conclusions, contemplating the equation assessments (4.6—4.7) as per annual data. In this case, the indices of investment and inflation, as well as the effect of convergence, explain the change of the index of GDP per capita growth within the limits of 57 %.
- The assessments of the analyzed equations of the data for five years have validated conclusions similar to those pertaining to data assessments for one and three years, with the exception that then the effect of convergence turned out to be statistically insignificant. One can attribute this to the fact that the five-year data depicts growth steps approximated to long-term steps in the context of steady growth. Thereby, it illustrates that the effect of convergence does not have a statistically substantial effect on the index of the GDP impact on life, since in the context of steady growth the convergence effect does not emerge from the nature of things.

The evaluated variables of the quotation variables (4.7) and annual data have created the need to develop simulations of changes of GDP per capita in Poland and Ukraine relative to the extensive and rich economies of EU countries, namely the Germany economy. The simulations assume that investment indices in Germany, Poland and Ukraine will amount to 19.2 %, 19.7 % and 20.1 % respectively; the inflation rates will be equal to 1.6 (Germany), 1.9 (Poland) and 7.5 % (in Ukraine)[54]. Table 4.49 presents some of the simulations.

[54] For the most part, they correspond to investment and inflation rates of Germany, Poland, and Ukraine in 2002—2006.

Table 4.49

SIMULATIONS OF GDP PER CAPITA IN GERMANY, POLAND AND UKRAINE UNTIL 2030 (GDP PER CAPITA IN GERMANY IN 2006 WAS TAKEN AS 100 %)

Year	Germany	Poland	Ukraine
2006	100	48	24
2010	111	54	28
2015	135	67	35
2020	171	85	45
2025	225	113	60
2030	301	152	81

Source: calculated by the author as per equation assessments (4.7) and annual data

The simulation (please see Table 4.49) implies the following[55]:

• By 2010, GDP per resident in Germany will grow 11 % relative to that of 2006. In Poland, GDP per capita can reach close to 54 % of GDP per capita in Germany in 2006, while in Ukraine — 28 % of GDP per capita in Germany in 2006. This means that in 2006—2010, the ratio of GDP per capita in Germany, Poland and Ukraine did not change substantially, since in 2006 the ratio was 100:48:24, while in 2010 it will be 100:49:25;

• Subject to the same positions, in the next five years, GDP per resident in Poland will be equal to close to two thirds of the German 2006 GDP per capita, while in Ukraine this macroeconomic variable will only slightly exceed one third of the German 2006 GDP per resident. The ratio of GDP per capita of these three economies will be close to 4:2:1;

• Irrespective of the insignificant statistical effect of convergence, GDP per capita in Poland will be equal to the German 2006 GDP per capita by 2023. Meanwhile, Ukraine's economy will attain only close to 81 % of the German 2006 GDP per capita by 2030;

• The ratios of GDP per capita in these economies during the simulation period will develop similarly. In 2030, the Polish GDP per capita is expected to remain at 50 % of the German GDP per capita, while the Ukrainian GDP per capita will be equal to almost 27 % of the macroeconomic majority;

[55] One should be particularly cautious with such simulations, since they contain the assumption that macroeconomic processes in Poland and Ukraine will be similar to those of 1990—2006.

- Compiling average annual growth rates of GDP per capita in Poland and Germany in 2000—2006, 2001—2006, and 2002—2006 with GDP per capita in 2006 in these countries, we can see that income per capita in Poland and Germany equalled 31, 29, and 24, respectively;
- Similar assessments of Ukraine's economy illustrate that with the average annual growth rate of GDP per capita in Germany and Ukraine in 2000—2006, 2001—2006, and 2002—2006, absolute convergence between those two economies in the sphere of GDP per capita will be attained in 24, 22 and 23 years respectively. However, one should approach such assessments with caution. The experience of developing countries has validated the neoclassic growth theory of Solow and the theory proves that the countries at a lower stage of economic development are capable of attaining a higher rate of economic growth. However, as revenues grow (GDP per capita), production growth decreases. Nonetheless, it is hard to agree fully that Ukraine's economy will manage to make its GDP per capita equal to that of Germany in such a short period of time.

4.11.4. Convergence in the Domain of Regulation in Poland and Ukraine as Analyzed against Select Groups of European Countries

Along with the rules of systematic analysis, we should accept as a proven fact the thesis that changes in real economy, hence, the convergence or divergence of economic growth happen under the clear influence of traditions. The primary factors that stimulate the shortening of the developmental distance include legal order and competition regime; accepted and evenly enforced regulations; and finally, social, ethical, religious, and mental examples and values. Thus, determining the causes of real economy divergence, which has been taking place between Poland and Ukraine during the transitional period, and identifying conditions and possibilities for convergence in the coming years should rely on a comparative analysis of institutional changes currently taking place in these countries.

Tackling problems pertaining to the evaluation of institutions is of key importance for researching the processes of convergence and divergence with respect to institutional decisions and, even more so, determining the influence of regulatory evolution on real convergence. Changes in the sphere of regulation, due to their complexity and the nature of the institutions themselves, make precise validation impossible. Attempts to approximate evaluation are not rare, thus enriching the dominant descriptive analysis, allowing for international comparisons, and increasing the exactitude of evaluation.

Among the indexes pertaining to the international institutional condition, we list the indexes of economic liberty processes published by the Fraser Institute, the Heritage Foundation, and above all, the indexes used by Freedom House[56]: the index of political rights (PR) and the index of civil liberties (CL). They are synthetic indexes and measure the general level of citizens' freedom or their ability to exercise spontaneous activity beyond the control of the state or other institutions of political and social influence (political parties, unions). The construction of these indexes is based on the principles laid out in *the Universal Declaration of Human Rights*, as well as on the basis of the belief that civil and political liberties are most guaranteed in the societies with liberal-democratic institutional order. In this way, they become universal and internationally comparative. The methodology for evaluating these liberties is free from deformities that could be caused or by differences in the mentalities of nations developing in disparate cultural, geographical, religious and anthropological conditions.

The applicability of the above-mentioned indexes in the analysis of economic convergence between Poland and Ukraine is determined by civil liberty components, which reflect the course of economic processes in these countries. Both political rights and civil liberties indexes are synthetic indexes with superimposed partial measurements from other spheres of societal functioning.

The political rights index is influenced by three factors:

- *electoral process* (EP), which indicates the level of freedom and equality in the election of a state's top administration;
- *political pluralism and participation* (PPP), which determine the freedom to create unions and socio-political parties, conduct politically oppositional activity, and form political views in a way unobstructed by pressure groups (totalitarian parties, clerical hierarchy, armed forces, other states, etc.);
- *functioning of government* (FG), which determines the level of corruption, transparency, and society's trust in the government, as well as the freedom of representatives to be elected to the administration on an independent basis.

In its turn, the civil liberties index is composed of four determinants:

- *freedom of expression and belief* (FEB), which means freedom and independence of the media; freedom of religion; system of education free from political dogmatism; and freedom of discussion and dialogue;
- *associational and organizational rights* (AOR), which signify freedom of assembly and demonstration; open public debates; freedom of NGO activity, trade unions, and village organizations;

[56] Fraser Institute — www.fraserinstitute.org; Freedom House — www.freedomhouse.org; Heritage Foundation — www.heritage.org

- *rule of law* (RL) which means independence of courts; blocking of political terror and the unwarranted incarceration of citizens; and equality of all citizens before the law and politics;
- the specific features of autonomy and individual rights as described in PAIR (*personal autonomy and individual rights*), i.e. gender equality; protection of property rights; freedom of economic activity; and non-interference of the state into the right to move, work, and obtain education.

The evaluation of the synthetic political rights and civil liberties indexes is done by posing 10 questions to each of the positions of the partial PR and by applying 15 determinants to each partial CL. Each of the partial indexes assumes a level from 0 to 4, where 0 is a low and 4 is a high level of freedom. As a result, the highest possible level for political rights is 40, and for civil liberties — 60. Ranges of political and civil liberties are then based on the partial indexes of PR and CL, where 1 signifies the highest and 7 the lowest level of freedom.

Therefore, the liberty indexes determine the freedom of economic activity and immunity of property; being components of a competitive regime and a state ruled by law, they also determine the fundamental elements of institutional order regarding the functioning of free markets, attaining economic growth, and hence developing substantial convergence-conducive factors. Basing our research on such reductionism of the neoclassical approach, we remark that other liberty indexes mentioned in the methodology used by Freedom House are primarily related to the problems of social capital and civil society and are also important factors of socio-political development.

Hence, basing the analysis of regulation in Poland and Ukraine on these indexes would allow not only for an interpretation of the processes in the real economy, but also for the evaluation of the differences in material and non-material aspects of living standards.

The use in this analysis of measuring instruments published by Freedom House is due to pragmatic reasons, namely to the fact that Freedom House has at its disposal long and comparative lists of indexes of political rights and civil liberties for over 150 world countries. Freedom House conducted its first surveys of the state of freedom in the world in 1950. Beginning in 1972, the organization has been using a unified methodological measurement of the protection of political rights and civil liberties[57].

[57] Over the course of many years, beginning in 1972, Freedom House has repeatedly changed its methodological evaluation of the levels of indexes of political rights and civil liberties, however, forseeing in each case their evaluation for the previous years.

Various constitutional principles observed in Western democratic and post-socialist states made for rather disparate evaluations of indexes of the use of political rights and civil liberties in this group of countries. From the start of the monitoring of these indexes according to the 1972 methodology, most West European states were classified as free, with indexes of political rights and civil liberties registered at level 1, while these same indexes reached levels 6-7 in the USSR and Central-European states, which is interpreted as the absence of freedom.

While no improvement in the above-mentioned indexes was noted in the USSR (including Ukraine) until the late 1980s, in Poland already by the late 1970s the index of civil liberties fell to 5. This, in a way, was a reflection of symptoms of improvements in economic activity. It should also be emphasised that, of all the post-socialist states, Poland had the largest level of freedom in economic activity, namely in the large sphere of private property (agriculture, small business, some areas of the service industry). One can presume that the above-mentioned differences between Poland and Ukraine, although barely noticeable in the statistical data, could have a substantial influence on the practical implementation of reforms in years to come. Even the limited freedoms in economic activity had an impact on society's mentality; therefore, they were establishing informal internal regulations. The entrepreneurial potential that accumulated in Poland developed into the implementation of market reforms and allowed for their relatively quick and well-organized completion, all of which made Poland's entrance into irreversible socio-economic changes possible. In Ukraine, however, ruination of the existing regulations proved to be much more difficult, which had negative effects for reforms on both macro- and micro-economic levels.

Radical improvements in political indexes began after the political turning points in the second half of 1989 in Poland and after Ukraine declared independence in 1991. In Poland, already in 1990, the indexes for the protection of political rights and civil liberties dropped to 2. In 1991 these indexes dropped to 3 in Ukraine, which, considering the unstable Ukrainian situation, indicated the existence of a similar tendency.

The following years brought a systematic growth in the sphere of freedom in Poland (figures 4.20 and 4.21) that was manifested in the decline of the political rights index to 1, a characteristic of democratic and liberal countries of Western Europe. Simultaneously, positive changes were taking place in civil liberties, stimulated by the European integration process. It was completed successfully — the civil liberties index reached level 1 in 2004, the year Poland joined the EU.

In Ukraine, however, the improvements observed in 1991 turned out to be temporary, and already two years later the positive tendencies in the

spheres of political rights and civil liberties deteriorated. Up until 2003, the civil liberties index stayed at level 4 while the political rights index, after a short deterioration in 1993, dropped to 3 in the following years. Nonetheless, in 2000, as a result of a decrease in political pluralism and the growth of corruption and despotism in state administration, the political rights index went to level 4. Consequently, in 2000—2003, the functioning of the markets was similar to that of the CIS where the vertical index of liberties was very high during this period.

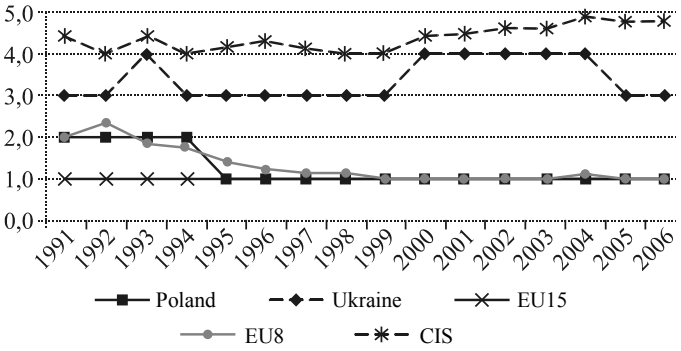

Figure 4.20. The Level of Political Rights in Poland and Ukraine against those in EU-15, EU-8, and CIS Countries

Source: the author's Figure based on the data available as of 9 October 2007

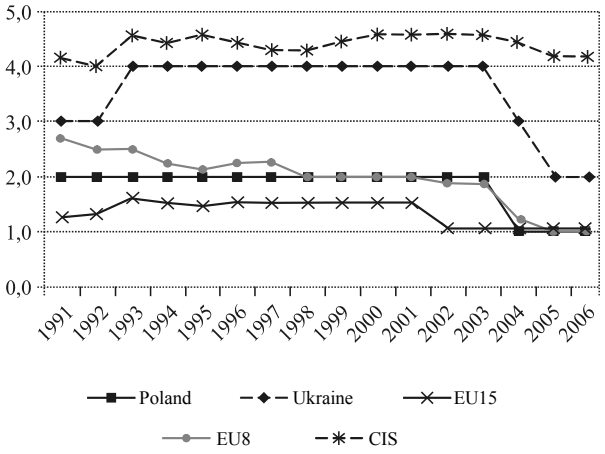

Figure 4.21. The Level of Civil Liberties in Poland and Ukraine against those in E-U15, EU-8, and CIS countries

Source: the author's Figure based on the data available as of 9 October, 2007

Thus, up until the arrival of the Orange Revolution, one observed an explicit divergence between Ukraine and Poland in the sphere of institutional changes reflected by these indices. This divergence was also accompanied by a growing gap in the real economy. Beginning with 2005, the state of political rights and civil liberties in Ukraine started rectifying. One can state that it was only from this moment that the sphere of regulation in Ukraine began nearing the judicial and competition regime as well as the principles of West European democracies.

The lack of Ukraine's results in the process of implementing institutional change was detrimental to the opportunities it received after gaining independence. Moreover, the efforts made during the first years of reforms proved to be largely appropriated. Apart from the positive results of the Orange Revolution, the distance between Ukraine and EU-15 countries, as well as Poland and the other EU-8 countries, in the sphere of regulation remains substantial. It is worth emphasising that the absence of progress in reforming the formal situations and general deterioration of living standards has a negative impact on the process of transformations in the nation's mentality. On the contrary, the desired effect should have been in the growth of activism, entrepreneurship, self-responsibility, and development of social capital. Changes of this kind are evolutionary in nature; hence, their disturbance results in weighty losses for society and the economy. One cannot make up for these losses in a short time period.

Synthetic measurements of the freedom level in political rights and civil liberties shed light on the general direction in the evolution of regulation, but they do not examine the details of liberty types respected or limited in nationwide economic systems. Additionally, to expand the evaluation of institutional order in the countries under examination, the researchers chose partial indexes of political rights and civil liberties in 2007 (Figure 4.22 *a*—*c*).

As can be seen in the above-mentioned diagrams, the distance that separates Ukraine from EU-15 and EU-8, including Poland, can be observed in all partial indexes for the protection of political rights and civil liberties. One should note that this distance varies depending on specific aspects of the liberties that reflect the institutional regime.

The researchers note comparatively small differences between Poland and Ukraine in the indexes of freedom of expression and belief (FEB), associational and organizational rights (AOR), rule of law (RL), and political pluralism and participation in a state's life (PPP). Indexes that directly and essentially determine the conditions for the effectiveness of real economic processes are, alarmingly, much lower: these are the indexes that reflect electoral process (EP), personal autonomy and

individual rights (PAIR), and especially, functioning of government (FG). Bearing in mind that institutional changes in the particular domains of social life are largely complementary in nature[58], this type of disproportion in the sphere of specific components of civil liberties can be dangerous for the process of reforms in Ukraine.

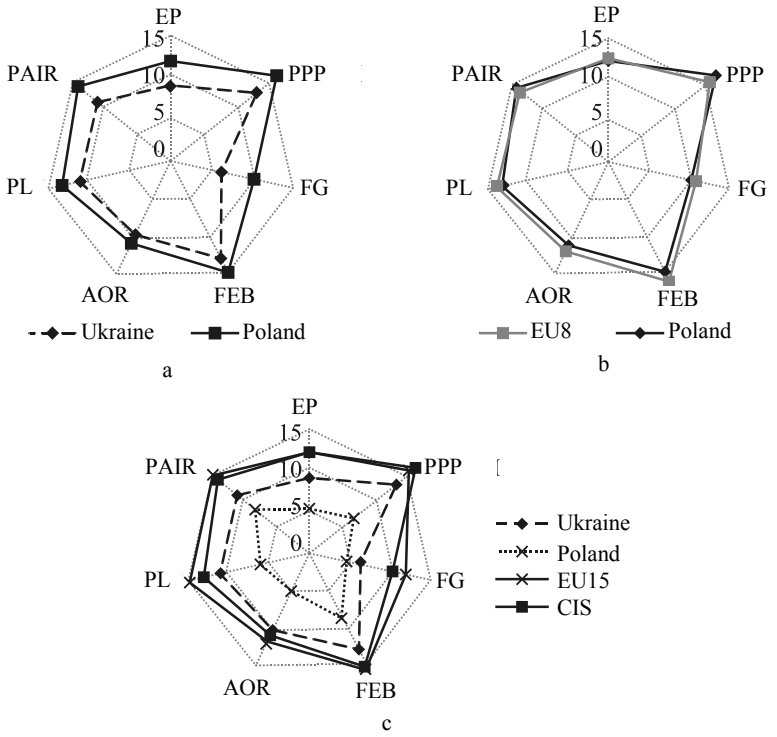

Figure 4.22. Cross-Section Graph of PR and CL Indexes for Poland, Ukraine, and Several European Countries, 2007

Source: the author's Figure based on the data available as of 9 October 2007

Similarly to its use in the analysis of the real economy, the econometric instrument can be applied in convergence analysis to the indexes reflecting changes in regulation. While studying similarities between processes of regulation in selected country groups (EU-15, EU-8, and the CIS), researchers also tested the hypothesis of beta-

[58] For instance, the chances of exercising one's associational and organizational rights in the form of building civil society increase, along with an increase in prosperity.

convergence performance (more on this issue in Gajewski, 2007, Chapter 1 and in paragraph 1.5 of this monograph). In the period under examination (1991-2006), the accomplished convergence of the regulation processes type «*y*» was noted only in the EU-15 regarding both of the freedom indexes; this is a direct result of the fact that in all the countries of this group the above-mentioned indexes were at 1. Similarly, in EU-8 countries, beta-convergence was observed on a similar scale in the indexes of civil liberties (1991-2006) and political rights (although to a lesser extent). In the case of CIS countries, a principal σ-divergence diagnosis was made for such measurements. This shows that the European integration process stimulated the institutional changes that took part in the process of co-integration for the EU-8. Other post-socialist countries, including Ukraine, failed to determine the model for socio-economic development in such a clear and unequivocal way. Additionally, they did not create their own, alternative model for the institutional order; the regulation observed in this divergent group is direct proof of this. Under the conditions of complex and interconnected institutional changes, convergence turned out to be a difficult task and the decrease of the distance to developed countries was significantly slowed down.

4.11.5. Conclusions

Poland and Ukraine, as well as other European and Transcaucasian post-socialist countries (EU-8 and CIS countries), had possibly aimed for a too speedy convergence of the economic development when in the early 1990s they began the transformation process in the system. The analysis of developments in the real economy and institutional changes during 1991—2006 in select countries proves that cutting the developmental distance was very important but did not result in the desired outcomes in all countries concerned. Considering as an example both real economy and regulation in West-European countries, we can state that the transformations in Poland had unequivocally positive results. They are manifested in the observed convergence between Poland's indexes describing these two domains and the correspondent indexes of EU-15. However, Ukraine shows an increase in the developmental distance relative to both the EU-15 and Poland, along with the other EU-8 countries.

Based on the analysis conducted in this chapter, we can state that institutional changes were of key importance for the dynamics of economic growth and hence for the creation of disparities in the

developmental pace between Ukraine and West-European states and Poland. During the period of increase in the basic political and civil liberties, Ukraine saw accelerated economic growth, GDP per capita growth, and an increase in investments. However, the development of political rights and civil liberties slowed down considerably during 1994-2003. This proves that the adverse course of the real economic processes in Ukraine was largely conditioned by the failures of regulatory reforms. We should also mention that in Ukraine's economy the implementation of primary system reforms was selective and partial; the reforms were excessively spread out in time; ultimately, many of the projected changes in the fiscal and monetary domains remained mere plans and goals. Made in this hybrid fashion, unrelated decisions on regulation did not help the country to enjoy the advantages of a market economy; they had shortfalls linked to the ineffective administration of a large part of economic processes through a state apparatus. This had a negative influence on economic growth. Thus, the process of decreasing the distance between Ukraine and developed countries requires necessary modernization in the institutional order, in particular regarding the implementation of regulations for democratic, free-market economies.

This statement can be especially misleading because of the present dilemma of choosing a model for Ukraine's economic development. Comparative studies of transitions to a market economy in the post-socialist countries (including studies of EU members and European and Transcaucasian CIS countries) show that the countries that chose the kind of institutional modernization which allowed for most freedom of choice in direction, had the highest level of success in catching up with the EU-15. In particular, this concerns entrepreneurial freedom, civil liberties, transparency in government functioning, and the promotion of judicial order and competition regime.

Bearing in mind that the transformation of the post-socialist states' economic systems should also take into consideration a social goal, we can state that the optimal model for economic development is that which will allow for the harmonization of a competitive regime with central strategic coordination. This is the model enforced in EU countries by the Lisbon Strategy and consumer rights. This model provides for long- and medium-term economic efficiency and a high rate of economic growth while considering the principles of social justice, social market economy and sustainable development. It seems that this particular model should be the most pertinent example for the economic development of Ukraine.

The objective analysis of economic processes in various regions of the modern world makes us think that the present-day model for the realization of the above-mentioned concepts in the EU is unsatisfactory.

On the other hand, China's example might seem favorable. There, a hybrid, system-based decision brought economic growth results unprecedented in the history of world economies[59]. The feasibility of this example is limited by a large cultural distance (disparate informal institutions) between China and Ukraine. We should also mentioned that, according to the institutional view of economy, the «catching up» countries such as Ukraine should be solely relying on the experience of the developed countries that historically developed in similar cultural, historical and anthropological conditions.

The development of the real economy and the decrease in sufficient distance between Ukraine and the EU-15 can be achieved by relying on EU development models, simultaneously applying Poland's experience of the implementation of institutional modernization during the transitional period, in Ukraine. This process cannot rely on an automatic copying of specific decisions; instead, it should rely — within the framework of the EU judicial regime — on those institutional decisions that would make use of the chances provided specifically by the social capital, human capital and other local factors of socio-economic development. To shorten the developmental distance between the EU-15, Poland and Ukraine on the existing time horizon, the country needs in-depth and enhanced institutional reforms, which would guarantee not only the effective market level characteristic of leading EU countries, but also the systematic achievement of high indices and effective use of productive potential in the EU-15. Such transformations require understanding of the interdependence of the market efficiency and institutional environment in which these markets function, as well as the coordination of the efforts and actions of the key players in social life (political parties, self-governments, scientific and intellectual spheres, professional unions, etc.) to promote meaningful institutional changes.

[59] W. Hangbo, 2007. «Reality and Prospects for Economic Development in China.» The seventh report of the first scientific conference *China in a Global World*, organized in Warsaw on 29 January 2007 by the Academy of Socio-Economic, Educational Television Satellite EDUSAT, the Foundation for Innovation, and the Foundation for Sino-Polish Economic and Cultural Exchange.

Instead of conclusions

The internal and external economic behavior of national governments and all business entities is significantly adjusted during crises that accompany the history of human civilization, as an obvious manifestation of the dual nature of the conditions and factors of life — political, economic, social and general civilizational. In a market unified world economic system the economic crises are the primary causes for society: on the one hand, industrial and financial (budget, stock, currency, banking, debt), and on the other – cyclical, structural and systemic.

Until recently, the most common in market economy were industrial crises, which were closely connected with long and short economic (business) development cycles as confirmed by the practice of leading countries and economic theory, since the global economic system always developed unevenly. Within the long period of 1950—2000 we observed more than 1,000 recessions of different duration and degree of disequilibrium, which reflected the impact of short and medium economic cycles and their modifications: crises occurred more often, overproduction of capital was observed instead of overproduction of goods, pricing discreditation weakened, phases of depression (recession) shortened and phases of revival and recovery extended. In the second half of the 21st century it was the result, on the one hand, of the technological modernization of the economies of developed countries, the formation of innovation management, the growing internationalization of business, and on the other – very effective policy of state countercyclical fiscal and monetary regulation: lower interest rates, rate of compulsory bank provisions, taxes on profits of enterprises and income of citizens, increasing share of government spending to stimulate innovation, promote social construction, etc.

Despite the optimistic scenario of the long-term economic progress of the world in the 21st century, its first decade demonstrates the profound social and economic upheaval caused by the unexpected critical combination of those objective and subjective processes and factors, that did not accidentally coincided in time, — technological (primarily, the exhaustion of the energy potential of traditional technological structures), eco-

nomic (global financial imbalances along with the institutional and regulatory incapacity of national, inter- and supranational structures), political (lack of adequate modern projects of safe world order being adequate with the global realities), socio-cultural (inter-civilization confrontation and spiritual degradation).

The world economy is affected by various economic crises, which are largely of national origin, international implications and potentially of a global nature, which resulted in many ideas and hypotheses of theoretical and practical orientation regarding their causes, mechanisms, distribution, impacts on national, international and global safe development.

The cyclical nature of both national and global economic development is due primarily to fundamental technological change. When conflict between the needs of social labor productivity growth and production efficiency, on the one hand, and the inability of existing technologies to provide it due to the exhaustion of their resource, on the other hand, a critical level is reached – the transition to a new technological structure is observed. Each technological structure emerged in the forefront of the key innovations that embodied a new level of science and technology development being adequate to the growing needs of humanity. Significantly, the social demand for fundamental innovations always appeared in the periods of technological crises, which by challenging outdated elements of the technological system, brought a powerful positive impulse of updating the economic system of society, caused profound changes of the basic technologies and industries, modes of macroeconomic regulation and major economic institutions and principles of the internationalization of economic activity that corrected the disposition of countries on the world economic map. In a developed market system the entrepreneurs–technology innovators become market leaders attaining exclusive superprofits and an enormous technological income. In general, the change of the technological structures bears a strong positive impulse of development, providing a reduction in production costs and prices for goods and services and quality upgrade of their nomenclature. At the same time, there is a rapid «washout» of traditional goods from the markets that not always reflects a change in real social needs and tastes. Moreover, new goods and rising prices in proportions that are inadequate to purchasing power are, in fact, imposed on the mass consumer. Evidently, there is an opposite trend – the conservation of fundamentally new technological innovation by the monopolists of the global market, especially in its energy, food, pharmaceutical and other sectors (phenomenon of the so-called «closing» technologies).

During the transition from production and goods to the financial expansion of the leading countries with the transmission of the leverages of

their influence on the world market, financial crises have the most significant impact on global economic development: in 1994 (Mexico), 1997 (South Asia), 1998 (Russia).

In all cases the main stimulating conditions of crisis situations were the fixed exchange rate policy, excessive amounts of short-term debt, a weak financial system and a state budget deficit. The similar characters (logic) of the development of crisis phenomena and processes are also indicative.

The main effects of the financial crises of the 1990s: ***for the economies directly affected by the crises*** – the collapse of fixed exchange rate regimes and the transition to free or managed floating regimes; bankruptcy of institutions of the financial system and non-financial corporations; significant increase of external debt; ***for the economies of other countries and regions of the world and the world economy in general*** – slowing economic growth and deterioration of basic macroeconomic indices due to the worsening of conditions of foreign trade, falling prices for export commodities, increasing competition on their traditional foreign markets; significant reduction in external financial flows to developing countries, particularly of debt financing; ***for the international financial organizations*** – awareness of the broad governmental, intergovernmental and scientific community of the need to reform the international financial architecture, in view of its inability to prevent the financial crises and their spreading; understanding of unprecedented unproductive and even harmful use of huge financial resources accumulated in the international financial organizations and redistributed in a traditional way without considering the latest global transformations for the establishment of new effective economies.

The awareness of destructive expansion of the «speculative asset» of market economy at discrediting its real sector becomes virtually universal. Born on the commodity markets, initially due to sales and then the production activities of TNCs, in recent years globalization is largely developing on a financial and investment basis, facilitated by the free movement of capital in the global information and communications network, with significant restrictions on the markets of goods, commercial services and manpower. Currently, the volume of transactions on the international lending, investment and especially foreign exchange markets exceeds the volume of production and goods sales activity by hundreds of times. The volume of transactions on global stock market in the transparent segments exceeds global GDP more than twofold. The shares of corporations and government debt obligations, which were previously dominant in the developed stock markets, are displaced by financial derivatives, the annual circulation of which is estimated in the hundreds

of trillions of US dollars. New instruments, appearing in the hundreds and thousands on the global stock market, are not oriented towards the prospective resolution of the problems of the real economy. Speculative transactions reach 95% of their total volume and daily volumes of currency speculation, which are in the trillions, are tens of times higher than the value of the international exchange of commodities. Separated from the parameters of the real economic environment in the process of the accumulation of speculative financial capital, said capital manifests itself in real production assets, as well as commercial and personal real estate, ignoring price proposals and ethics, which poses the threat of global destabilization.

It fully demonstrates the permanent nature of financial crises, which, on the one hand, integrate crisis phenomena and processes in the industrial, financial and investment sectors, and on the other – cause the superrapid spreading of a «crisis infection» on cross-national, regional and global levels.

Even in a very contentious environment of the 20th century, crises were mostly functional and local regional in nature, and their consequences were more or less predictable. The financial crisis usually began in a given country as a result of internal and/or external factors that caused real or monetary shock, followed by entrepreneurial or speculative euphoria, market anxiety and pursuit. In the event of a successful anticrisis policy in the effective cooperation with international financial institutions at their different stages it would be possible to calm the market; reach stabilization, resolve the financial crisis, prevent default and so on.

However, the financial crises of late 1990s, which fully demonstrated the destructive potential and mechanisms of the transmission of global negative impacts from the group of Asian countries to East European countries, including Russia, showed that one could hardly speak of the effective anti-crisis policies of some states and international financial organizations. In the 21st century, financial crises, first of all, become a mandatory component of development, and, secondly, a priori have a global nature with the mechanisms of instant transition of crisis infection between sectors, industries and regions of the globalized economy.

The modern world economic situation, the instability level of which can obviously be considered unprecedented, confirms the permanent nature of a crisis of global economic development. In addition, the logic of the emergence and development of a current crisis «fits» the traditional scheme quite well, i.e. it is not phenomenal or even original: crisis impulse (mortgage crisis in the USA) and crisis infection (mortgage and credit markets in other countries); the unsuccessful attempts of national governments to neutralize the initial manifestations of a financial crisis;

crisis synergy («financial — real sectors of the economy»); the first attempts of international consolidated intervention that are likely to become more and more institutionalized and rigid in form.

A current crisis can be called global only in terms of unprecedented geography and the total helplessness of governments of most world countries (except leading countries) and global organizations — IMF, WB, WTO, European Union. Given the ongoing measures in almost all countries, which are actually reduced to providing social «aid» to private entities, one can question the objectivity of the present crisis. It offers broad opportunities for implementing very popular ideas of «global subjectivism» when the reasons for global economic turmoil are due to the interests and actions of individuals (top financial speculators, odious formal and informal political leaders, etc.) or their legitimately or illegitimately institutionalized groups (the US Federal Reserve System, top management of TNCs, bureaucracy of the EU, ethnic and religious communities).

Currently, crises do not develop independently, but interact, causing a synergetic effect. The operation of mechanisms for spreading financial crises depends on the degree of integration of national financial markets on the global capital market: the higher its level, the more vulnerable to external crisis shocks is the national economy. Conversely, countries with limited access to international markets are less vulnerable to the effects of the financial crisis infection.

The high openness of the Ukrainian economy along with poorly developed internal market self-regulation mechanisms causes its clear dependence on global crisis fluctuations. In 2008 there was a very negative macroeconomic dynamic: industrial production (over 30%) and GDP (about 20%) reduced significantly, the stock index fell by 70%, external debt exceeded USD 100 b. It was accompanied by: a rapid growth of the foreign trade balance deficit through export restrictions resulting from the adverse conditions on the world markets of metal and chemical products; increase in systemic energy dependence with high energy prices and the extreme energy consumption of the economy; collapse of the national banking system due to the liquidity crisis, caused by excessive external corporate borrowing and rampant distrust of the population; decline of the official hryvnia exchange rate in view of the uncertain exchange policy of the NBU, reduction of its currency reserves; failure of the government's fiscal and social policies, along with substantial progressive inflation; collapse in construction due to the significant reduction in mortgage lending in view of unprecedented price disparities on the housing market.

A specific accelerator of economic crisis processes was the unstable political cycle and unpredictability of its results in view of the total cor-

ruption of the state apparatus, which was dependent on industrial and financial groups, the influence of the uncoordinated actions of different branches of power, the underdevelopment of civil society institutions and the degradation of the institutional system as regards property rights and justice.

Research interest of the Ukrainian scientists should focus on the assessment of the dependence of our state on both external (global) impacts and the quality of state and business crisis management. Priority measures are as follows: ensuring the social capacity of the state, support of infrastructure facilities, optimization of external corporate and sovereign obligations, restructuring of the financial and real sectors of the economy. However, the systematic strategic analysis of modern crisis processes both in the world and in Ukraine is in a deficit. If affluent on short-term speculation «businessmen» and brainwashed by «tomorrow» elections politicians can be understood, then all the others — cannot.

If in the national and international synergy levels are of a largely functional orientation (economic — political crises, social — political crises, banking — debt — systemic financial crises, etc.), on the global level it gains qualitatively new dimensions in a complex system of «man — nature — economy — society — civilization». In other words, the global crisis can have political, economic, environmental or other preconditions, but cannot be functionally or geographically determined by nature. Hypothetically, the global crisis will have only two alternative solutions – a quality upgrade of the world in all system components or global disintegration. In modern history there were no global crises, because there were no really global challenges and humanity managed to ensure more or less safe development.

Further in-depth study of the anti-crisis opportunities of the convergence of country patterns of economic development in the context of European integration under apparent global disproportion and the asymmetry of development is also important. The national strategy of pursuing an upgrade of the Ukrainian economy which is industrial according to its fundamental features is inefficient. Modern economic policy is to ensure the transition from the current practice of gaining competitive advantages, mainly due to price factors, to factor advantages, such as natural resources wealth, human capital, scientific and technological potential, geoeconomic factors and so on. It should be innovation-oriented, i.e. developed, taking into account the global trends of the intellectualization, informatization and humanization of the economy. The ambitious strategy as an integrated system of actions aimed at implementing a national goal, objectives and priorities can be considered as a separate «virtual resource» that can, over time, offset the lack of financial resources neces-

sary for the development of society. Therefore, the development and implementation of a coherent strategy ensuring a competitive national economy, will enable Ukraine to overcome the crisis, by realizing the European integration development potential.

* * *

THE Ukrainian editors of this monograph were originally convinced that «Conclusions» should summarize all the information provided in each section and offer a sort of «recipe» for Ukraine in the coming years. However, over time this idea was rejected, firstly, because every paragraph contains quite substantiated conclusions and recommendations, and secondly, the system of measures proposed, has repeatedly become a list of dreams, because without real financial instruments and implementation mechanisms, they once again become just intentions, and thirdly, the authors, as professional economists, are deeply convinced that to attain real convergence between Ukraine and Poland, and thus with the whole European Union, it is necessary to make significant effort not only in economic terms.

We are well aware that the young Ukrainian democracy is only making its way, however over the years that have passed since the «Orange Revolution» it would be expedient to move away from constant quarrels, recriminations, conflicts and so on, which has used up a lot of time, forcing the government to work as a «fire brigade». It should then gradually move away from European control mechanisms and instruments, real convergence with the EU through the implementation of «Common heritage» and the creation of joint projects of innovative modernization of the economy, etc. Territorial-administrative reform «was lost» somewhere in a fit of passion, all negotiations with the EU on simplification for getting Schengen visas did not result in practical application, thus the Ukrainians still have to queue up, to submit derogatory references confirming their loyalty in order to obtain a permit to travel to Europe, while being in its center. Constant changes of geographical priorities in the country have significantly damaged its image abroad, causing the so-called «fatigue of Ukraine». Can it promote convergence with the EU?

However, we believe that convergence is necessary and that the only possible movement of Ukraine is to the fraternal family of European nations, and that the experience of Poland, as described above, is invaluable for our state, as is the advice of leading Polish economists, written by people who are professional and tolerant in regards to Ukraine.

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List of abbreviations

a.c. — acquis communautaire (EU common heritage)
R&D — research and development
BGŻ — Bank Gospodarki Żywnościowej
WB — World Bank
BTI — Bertelsmann Transformation Index
CEFTA — Central European Free Trade Agrement
CIT — Corporate Income Tax
CL — Civil Liberties (indicator published by Freedom House)
EUOTC — Euro-Asian Oil Transportation Corridor
EAW — Economic Aspect Of Welfare
ECB — European Central Bank
EBRD — European Bank for Reconstruction and Development
EFTA — European Free Trade Association
EP — Electoral Process (election process indicator, component of PR, according to Freedom House methodology)
ESCB —European System of Central Banks
CEEB — Countries of Central and Eastern Europe and the Baltic region
CEE — Central and Eastern Europe
CJEC — Court of Justice of the European Communities
EEC — European Economic Cooperation
ECSC — European Coal and Steel Community
FG — Functioning of Governance (governmental functioning indicator, component of PR, according to Freedom House methodology)
RDGF — Retail Deposits Guarantee Fund
GATT — General Agreement on Tariffs and Trade
KBE — Knowledge Based Economy
GPI — Genuine Progress Indicator
SE– Stock Exchange
GSP — General System of Preferences
GUAM — Organization for Democracy and Economic Development (Georgia, Ukraine, Azerbaijan, Moldova)
HDI — Human Development Index

CC — Chamber of Commerce
IMD — Institute for Management Development
INST — Indicator of Institutional Development according to EBOR Methodology (TPI element)
CEI — Central European Initiative
ISEW — Index of Sustainable Economic Welfare
KAM — Knowledge Assessment Methodology (economic development assessment methodology that is based on knowledge, used by the World Bank)
EC — European Commision
KEI — Knowledge Economy Index
OPAI — Office for Public Agricultural Insurance
TNC — Transnational Corporations
LIB — Liberalization Index according to EBOR methodology (TPI element)
MEW — Measure of Economic Welfare (measurement of welfare by Nordhaus and Tobin)
IMF — International Monetary Fund
TEM — Trade and Economic Mission
MES — Ministry of Education and Science
LSM — Least Square Method
ILO — International Labour Organization
SME — small and medium-sized enterprises
NASU — National Academy of Sciences of Ukraine
NBU — National Bank of Ukraine
NIF — National Investment Fund
NNW — net national welfare
SAC — Supreme Administrative Court
PCA — Partnership and Cooperation Agrement
EP — European Parliament
PIT — Personal Income Tax
GDP — gross domestic product
SSCU — State Statistics Committee of Ukraine
GNP — Gross National Product
PPP — Political Pluralism and Participation (pluralism and civil participation indicator, component of PR, by the methodology of Freedom House)
PPP — purchasing-power parity
PR — Political Rights (political rights indicator published by Freedom House)

IC — Insurance Community (pension fund prototype)
FRG - Federal Republic of Germany
MPC — Monetary Policy Council
SME — Social Market Economy
SII — Summary Innovation Index
LS — Lisbon Strategy
SNBI — sustainable net benefits index
FTA — free trade area
TACIS — Technical Assistance for the Commonwealth of Independent States
TFP — total factor productivity
ICT — Information and communication technology
TPI — Transition Progress Indicators (by EBOR methodology)
EUAA — European Union Association Agreement
AC — Anti-Trust Committee
EU — European Union
EU-15 — EU members prior to accession of new members in 2004, i.e. Austria, Belgium, Great Britain, Greece, Denmark, Ireland, Spain, Italy, Luxemburg, Netherlands, Germany, Portugal, Finland, France and Sweden
EU-27 — all EU members, i.e. Austria, Belgium, Bulgaria, Great Britain, Greece, Denmark, Estonia, Ireland, Spain, Italy, Cyprus, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Germany, Poland, Portugal, Romania, Slovakia, Slovenia, Hungary, Finland, France, Czech Republic, and Sweden
EU-8 — countries that joined the EU in 2004, i.e. Estonia, Latvia, Lithuania, Poland, Slovakia, Slovenia, Hungary, and Czech Republic
EMU — Economic and Monetary Union
UNDP — United Nations Development Programme
CCPC — Competition and Consumers Protection Committee
UUIE — Ukrainian Union of Industrialists and Entrepreneurs
VAT — value added tax
WEF — Word Economic Forum
CIS — Commonwealth of Independent States
CISL — countries of the CIS with low level of reforms (Belarus, Uzbekistan, and Tajikistan)
CISA — countries of the CIS with average level of reforms (all CIS countries, except Belarus, Uzbekistan, and Tajikistan)
WTO — Word Trade Organisation
SIF — Social Insurance Fund

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Zoido-Lobaton P.

About the authors

Lukianenko Dmytro (ed.), Doctor of Economic Sciences, Professor (Ukraine)
Kyiv National Economic University named after Vadym Hetman,
First Vice Rector
Research subjects: international integration, global management

Chuzhykov Viktor (ed.), Doctor of Economic Sciences, Professor (Ukraine)
Kyiv National Economic University named after Vadym Hetman, Head of the Department of European Integration, President of the European Integration Promotion Foundation
Research subjects: international economics, European integration, global regional studies

Woźniak Michał Gabriel (ed.), Ph.D., Habilitated, Professor (Poland)
Cracow University of Economics, Head of the Applied Economics Department
Research subjects: comparative analysis of economic systems, economic growth and social inequality, human capital

Antonyuk Larisa, Doctor of Economic Sciences, Professor (Ukraine)
Kyiv National Economic University named after Vadym Hetman, Director of the Institute for Higher Education, expert of the Council for Competition in Ukraine
Research subjects: international competition, innovations, venture capital

Bal-Woźniak Teresa, Ph.D. (Poland)
Rzeszow University of Technology, "Rzeszow Polytechnic" Department of Entrepreneurship, Management and Eco-Innovations
Research subjects: management of development factors, innovation formation, and intellectual capital

Bolonek Ryszarda, Ph.D. (Poland)
Cracow University of Economics, Applied Economics Department
Research subjects: technological progress, dualistic economics, theory of economic development

Dobija Mieczysław, Ph.D., Habilitated, Professor (Poland)
Cracow University of Economics, Head of the Accounting Department
Research subjects: monetary theory, managerial accounting, state accounting, accounting theory, financial statement analysis, income theory

Fedirko Nataliya, Ph.D. (Ukraine)
Kyiv National Economic University named after Vadym Hetman,
Department of Macroeconomics and Public Administration
Research subjects: public policy, regulation of incomes of the population, taxation

Fedirko Oleksandr, Ph.D., Associate Professor (Ukraine)
Kyiv National Economic University named after Vadym Hetman, Deputy-Head of the Department of European Integration
Research subjects: international competition, European integration

Firszt Dariusz, Ph.D. (Poland)
Cracow University of Economics, Department of Applied Economics
Research subjects: innovations, technology transfer, economic growth

Honcharuk Andriy, Ph.D., Professor (Ukraine)
Secretariat of the President of Ukraine
Research subjects: international economic relations, international trade

Ilnytsky Denys, Ph.D., Associate Professor (Ukraine)
Kyiv National Economic University named after Vadym Hetman, Department of International Economics
Research subjects: European integration, information resources of international cooperation

Jabloński Łukasz, Ph.D. (Poland)
Cracow University of Economics, Department of Applied Economics
Research subjects: economic growth, human capital

Kaleniuk Iryna, Doctor of Economic Sciences, Professor (Ukraine)
Chernihiv State Institute of Economics and Management, President
Research subjects: international economics and education

Kaliszuk Ewa, Ph.D. (Poland)
Head of the Committee on European Integration of the Institute of Market Research, Consumption and Market Conditions; Editor-in-chief of the bimonthly magazine *European Community*
Research subjects: international trade policy

Kleer Jerzy, Ph.D., Habilitated, Professor (Poland)
Warsaw University, School of Economics, Department of National Economics
Research subjects: public sector theory, transformation processes in post-socialist countries, privatization processes, capital market formation, globalization, and regionalization

Olefir Anna, Ph.D., Associate Professor (Ukraine)
Economist, World Bank Consultant, ECA Human Development Sector Unit
Research subjects: international trade

Panchenko Yevhen, Doctor of Economic Sciences, Professor (Ukraine)
Kyiv National Economic University named after Vadym Hetman, Department of International Management
Research subjects: international entrepreneurship and management, European business

Poruchnyk Anatoliy, Doctor of Economic Sciences, Professor (Ukraine)
Kyiv National Economic University named after Vadym Hetman, Head of the Department of International Economics, Director of the Center for Master Training
Research subjects: international economic integration, globalization

Satsyk Volodymyr, Ph.D., Associate Professor (Ukraine)
Kyiv National Economic University named after Vadym Hetman
Research subjects: economic theory, development cyclicality, anti-cyclical state policy

Savchuk Volodymyr, Correspondent Member of the National Academy of Sciences of Ukraine, Doctor of Economic Sciences, Professor (Ukraine)
Kyiv National Economic University named after Vadym Hetman, Vice-President for Research, Head of the Department of Political Economics
Research subjects: economic theory, international economics

Stępień Kinga, Ph.D. (Poland)
Rzeszow University of Technology, "Rzeszow Polytechnic" Department of Finance and Banking
Research subjects: banking system, financial market, banks

Stolyarchuk Yaroslava, Doctor of Economic Sciences, Professor (Ukraine)
Kyiv National Economic University named after Vadym Hetman, Department of International Economics, MBA Program Coordinator at Center for Master Training
Research subjects: asymmetry of global economic development, globalization, global labor market, institutionalization of the world economy

Tatarenko Nataliya, Ph.D., Professor (Ukraine)
Acting President of the Diplomatic Academy of Ukraine
Research subjects: methodology of world economic research

Tokarski Tomasz, Ph.D., Habilitated, Professor (Poland)
Jagiellonian University, Institute of Economics and Management, Head of the Department of Mathematical Economics, Higher Trade School in Kel'tsy, Tarnow branch
Research subjects: mathematical economics, theory of economic growth of labor

Tsyhankova Tetiana, Doctor of Economic Sciences, Professor (Ukraine)
Kyiv National Economic University named after Vadym Hetman, Head of the Department of International Trade
Research subjects: international trade and marketing

Наукове видання

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Художник обкладинки *Є. Мироненко*
Коректор *К. Никонюк, О. Вінська*
Верстка *О. Ковальчук*

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«Київський національний економічний університет імені Вадима Гетьмана»
03680, м. Київ, проспект Перемоги, 54/1
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Тел./факс (044) 537-61-41; тел. (044) 537-61-44
E-mail: publish@kneu.kiev.ua

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У спільній українсько-польській монографії розглядаються різні аспекти двосторонніх відносин. Виявлені важливі риси конвергенції соціально-економічних систем у контексті розвитку глобалізаційних та євроінтеграційних процесів, а також подальшої трансформації країн Центральної та Східної Європи. Виокремлено характерні риси еволюції господарських моделей Польщі та України. Розкрито особливості застосування механізмів та інструментів конвергенції національних економік двох країн. Дослідницький інтерес авторів монографії сконцентровано на диверсифікації двосторонніх економічних відносин та підпорядковано фундаментальній меті — коінтеграції України та ЄС і можливого використання польського досвіду щодо системної трансформації вітчизняної соціально-економічної моделі.

Книгу адресовано науковцям, політикам, громадським діячам, дипломатам, міжнародним експертам та багатьом тим, кому не байдужа європейська перспектива України.

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