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Facilitating Economic Development
Through
The Reform of Economic Instruction*

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Economic development in many ways depends on the level of human capital in the national economy, including that of economists. Market reforms in the former Soviet Bloc urged drastic changes in economic curriculum necessary to prepare the next generation of economic leaders. This paper states that the reform of economic instruction in the Former Soviet Union should focus on both learning and action. The incorporation of mathematical methods into the new economic curriculum will occur based on close cooperation among mathematicians and economists. The new economic instruction will have an interdisciplinary character and a multidisciplinary setting. There are several second order organizational changes that need to be made. Bachelor and Master's Degrees should replace the five-year degree. Changes in the curriculum should include separation of core courses and electives including those from other majors, detail-oriented content of the courses, a decreased number of classes per semester and increased time for each class. Faculty retraining should be coordinated both within and between the universities. Financial incentives should be created to encourage the instructors to participate in retraining, to change the content and method of the instruction, and to work effectively in the classroom.

Key words: economics, economic instruction, education, reform, transition

Introduction

The change of former planning economies into market ones requires substantial alterations in culture, attitudes, and values. An important aspect of this change is the transformation of economic education as a source and provider of economic knowledge. Economic education in the former Soviet Union (FSU) was designed to provide specialists for the planned economy. Building a market economy required specialists with a different set of knowledge and skills.

The conceptual basis of the reform was that the move toward a market economy requires a change in economic instruction from Marxist political economy to Western economics. Several basic courses in economics were introduced in addition to the Marxist curriculum. After the political changes in 1991, departments of political economy were renamed “departments of economic theory.” This nominal change, however, did not lead to the replacement of the Marxism-based curriculum with Western economics. Not surprisingly, the reform fell far short of success in terms of quality of new economic instruction. For Elmore: “Most educational reforms never reach, much less influence, teaching practice, and therefore (are) largely pointless.” (Elmore 1996: 48) This paper describes genesis and chronology of the reform, major changes in the content of economic instruction, and possible causes of the reform problems, and considers possible solutions for the problem based on a combination of the model of learning, action, and coordinated effort with Cuban’s model of first and second order changes.

Initial conditions and changes

There are both external and internal forces that influence changes in curriculum. The external forces include the state represented by the government, the Ministry of Science and

Education, and other related Ministries. Forces used to change curriculum may be defined as administrative, market, or institutional/internal. They can be presented as follows: 1) administrative, or top-down mechanisms, including those implemented by administrations of all levels, starting with the central government and down to university administrations; 2) market, or demand pressure, including firms, students, and the government; 3) internal mechanisms, including qualified instructors and publishers of textbooks and other academic literature. The third group of forces is enhanced with the sharpening conflict of generations within the teaching profession.

The state represents two important features as related to post-Soviet higher education, and economic instruction in particular. First, the state was a historically dominant force in higher education since the establishment of the first universities in the Russian Empire two centuries ago. Flynn describes the creation of the university system in the Russian Empire under the auspices of the newly established Ministry of Education: “It soon was agreed, in 1802, to found a Ministry of Education whose governing body, called the Main School Administration, would direct all education throughout the empire through six universities, which were founded between 1802 and 1804. Moscow State University, founded in 1755, was redesigned in 1804.” (Flynn 1988: 3) The Ministry subcommittee worked on drafting legislation and statutes for universities.

Second, the state created a ground for the monopoly on curriculum as an immediate Soviet legacy. The Soviet system of higher education inherited some of the essential features of its predecessor, the university system of the Russian Empire. Weak university self-governance was counterbalanced by strong state control. As Coleman puts it: “The Soviet Union has built up a single monolithic educational system under omnipresent party control with heavy inputs of political indoctrination at all levels.” (Coleman 1965: 226) Advances in ideology were

traditionally considered as a primary task for Marxist political economy. Understanding of the world's dominant and rivalry economic systems along with global economic orders was a secondary task. Finally, the economy itself, including the national economy, was given least priority. As biased as this approach was, it nevertheless succeeded in the training of a very small, elite group of political economists with a very broad vision of world economic orders as well as fundamental socio-economic issues.

While at the beginning of the reforms certain attention has been paid to the content of economic instruction, later focus was moved onto the structural changes, including access to higher education, forms of ownership and redistribution of property rights, degrees, programs, as well as salaries, stipends, and ever growing corruption. This later trend still dominates the reform and has a potential for further development. Exogenous character of transformation and focus on structural changes led to the negligence of content and its quality.

Issues of quantity were being given a priority over issues of quality. This was a mistake, because such prioritization ignored the fact that the country was well over the point when “a book is better than no book; what kind of book is a secondary question.” Quantities of places, newly produced specialists, and new textbooks were growing in lieu of quality of training.

From the market standpoint, there was a major undeniable fact of dominating Soviet legacy, i.e. absence of any market. This dominance of Marxist ideology along with a virtually non-existent market was then replaced with the emerging, imperfect quasi-market with no clear demand on labor force of certain qualification, education, training, and skills. The key question here would be whether it was exogenous or endogenous to the reform? The answer may be found in an analysis of correlation between the market reforms with their major advancements and crises and doctoral research conducted in the 1990s and early 2000s. We will use the example of

Ukraine as the second largest country to emerge after the Soviet System collapse to illustrate the issue. This research employs a unique database that consists of over four thousand and five hundred dissertations, i.e. all economics dissertations defended in Ukraine in the period of 1994 until 2004. It captures the period of market reforms from the early 1990s till present. The research accounts for the four year time lag from starting dissertational research or adjusting already existing topics to their defense.

The findings show that such fields as labor market and investment are way more popular than pension reforms; agricultural economics are traditionally popular, while social policy is one of the least popular issues selected for dissertation research. It is explained by the fact that many economists work in banking and investment and prefer to do research on growing industries with optimistic perspectives, while deteriorating socio-economic conditions and social welfare are not among the favorite issues. Economic thought is rather reactive: the first dissertation devoted to transaction costs has been defended in 2000, i.e. one decade after the beginning of the market reforms. Same is true for many other topics that reflect economic transition and development. The first dissertation with focus on corporate finance was defended in 1998, currency exchange and futures in 1998, economic growth in 1998, elasticity of supply and demand in 1998, education and human capital as a factor of production in 1999, real estate market in 1998, science as a factor of production in 2000, and shadow economy in 2000. Preliminary results show that the topics do not correlate significantly with the major economic reforms, changes, or events. At most, they follow them and describe major changes and developments in the economy but do not play a leading or navigating role in the process.

As one can see, the market reform was and still is way ahead of the dissertations. Dissertation research did not become an engine for market reforms and neither did economic

education in general. Economic instruction and economic science were in many ways followers rather than leaders. They assumed the role of market reform historiographers instead of engineers and architects and focused on descriptive analysis instead of program design and forecasts. This was a characteristic of the best, most progressive group of scientists, ready to adapt to new realities. The rest was falling even more behind, either adhering to the old or quickly turning into money-makers covered with new labels borrowed from economics: Bookkeeping was renamed into Accounting and Economy of Enterprise was transformed into Management. This indicated a growing confrontation between two paradigms: the paradigm of entrepreneurship versus the “saint and miserable” paradigm. The first paradigm anticipated a new profit oriented style of behaviour among the instructors, often involved in corrupt activities while the second was characterized by sanctity, orthodoxy in style, and material misery. Needless to say that both groups of faculty members who adhered to one of the two paradigms had quite a feeling of hatred toward one another. This vision of public stand and social status of a faculty member is not a distinct characteristic of the post-soviet higher education, where the new has clashed with the old, but quite typical for European academies as well, where one is supposed to suffer and enjoy it by being publicly poor and devoted to scholarship.

Economic science may be characterized by its distancing from reality, observations and observers who are to contemplate and comprehend rather than design and change. By the end of the 1990s faculty in economics were poorly paid, even though they were in a much better position than academics from other disciplines. Authority turns to economists mostly for the spiritual or symbolic blessing of new and proposed reforms. Eventually, the role of the economists is still the same as in Soviet times: creation and maintenance of ideological grounds. As in the past, political economists are given the role of apologists of the regime, its actions, and

the system overall. Critical comments are allowed but largely ignored. Economists may be characterized by the trivial split, i.e. division between those in support of the reforms and those who are in opposition to the reforms, often independent of the content of these reforms.

Thesis and the model

The reform was unsuccessful due to unclear goals, an unclear implementation process, and a lack of necessary resources, incentives to change, and focus on instruction. Successful educational reform in economic instruction should be based on both a theory of learning and a theory of action, including coordinated effort.

A successful educational reform should have two components: a theory of learning, which brings together assumptions about how students learn, instructional strategies, incentives, and performance; and a theory of action, which focuses on the current conditions and conditions under which the reform will work, and ways and stages of implementation. Instructors should learn new content, new methods and new techniques of teaching. The action should be coordinated and focused on the current and projected demand for the new instruction, retraining, and a system of incentives so that instructors learn, teach, and develop the new knowledge. Government incentives, the university-based system of rewards, and a growing market demand on high quality training in economics may encourage faculty to retrain, produce new textbooks, and change the curriculum. Retraining, new teaching materials, and new curriculum will enable instructors to radically change teaching practices both inside and outside the classroom.

The concept of first and second order changes is presented by Cuban as follows:

First order changes refer to quality control problems – improving the efficiency and effectiveness of what is done. First order changes include recruiting better teachers and

administrators, rising salaries, allocating resources equitably, selecting better textbooks, adding, (or deleting) content and coursework, scheduling people and activities more efficiently, introducing new versions of evaluation and training. (Cuban 1988: 342)

They try to make already existing system more effective and efficient, without disturbing basic organizational structures and roles, while existing goals and structures of schooling are both adequate and desirable. Second order changes mean new goals, structures, and roles (Cuban 1988).

The second order changes are necessary for successful reform because this reform not “more of the same” or “the same but differently.” It is a new content, delivered in new ways within a new environment to satisfy new needs. Second order changes should apply to establishing new goals for economic programs, changing the economic curriculum, and changing the roles of the economic instructors. The new goal will be to train a new type of economist, capable of analyzing, managing, and leading market transformation in the society. The new curriculum will be a reflection of the market demand for specialists and include primarily the set of economic disciplines from Western economics. The new role of the instructors will consist of training, including self-training, retraining, acquiring new methodologies and techniques of teaching economics, translation, editing and preparing a set of new textbooks, instructor manuals, and other teaching materials, and the application of new methods in their research. Restructuring of the curriculum may lead to changes in departmental structure and degree requirements.

Genesis of the reform

Genesis of the reform of economic instruction may be presented based on the three major criteria. The first criterion is a set of courses, curriculum, or program of studies in economics. The

second criterion is the level of comfort of the instructors with teaching new courses. The third criterion is related to textbooks and other academic literature, including their availability, quality, level, and whether they are published domestically or translated. Based on these three criteria this paper identifies the following seven stages in the reform: Romanticism, Difficulties, Frustration, Commercialization, Stabilization, Adaptation, and Selective successes.

The first stage, Romanticism, from 1991 to 1993, is a time when initial changes took place, including introduction of economics based on the translated textbook *Economics* by McConnell and Brue under the auspices of the Ministry of Education. This stage is characterized by raising aspirations and the level of enthusiasm among the faculty. There was almost no literature available, the curriculum was old, and basic micro- and macroeconomics were taught under the old titles, i.e. Economic Theory I and II. Another important characteristic of this stage was that leading universities adopted new content much faster than their counterparts on the periphery.

The second stage, Difficulties, from 1993 to 1995, is characterized by the lack of textbooks and teaching materials, represented mostly by translated textbooks, changing curriculum, and often teaching old content under the new titles. Economic programs never offered what some would call “random grab bag of courses.” The new curriculum was growing incrementally.

The third stage, Frustration, from 1995 to 1997, is characterized by the low level of instruction in general, presence of literature of basic level only, instructors’ discomfort with developing or teaching more complex content to the weaker student cohorts. Post-soviet economists were not welcomed and not accepted by the international community of economists. Some attended international conferences, workshops, and seminars, and realized that they are far

behind their western colleagues. Decreasing salaries and outflow of young specialists added to the frustration over the reform. This led to revision of the initially accepted-at-face-value postulates of Western economics.

The fourth stage, Commercialization, from 1997 to 1998, is characterized by the process of standardizing curriculum throughout the former republics, availability of translated literature, increasing comfort of the instructors with teaching different disciplines within economics, and involvement of some professors of mathematics into the process of teaching economics. An essential feature of this stage was an achieved peak in the student enrollment. Private colleges and for-tuition programs in public colleges were striving during this period. At this stage it became a norm for an economics faculty member to teach in three different colleges, and to conduct outside consulting. Professors were encouraged to develop new specialized courses based on their dissertations, such as Institutionalism, Property Rights, Welfare State, etc.

The fifth stage, Stabilization, from 1998 to 2000, is characterized by establishment of the coherent curriculum, the well defined set of disciplines that may be found in every college that offers economic programs. Academic libraries have good collections of textbooks as well as selection of extracurricular economic literature, journals, including variety of books and textbooks in English. Instructors are generally comfortable with what they teach, even though the level of teaching varies. For instance the course “History of Economic Thought,” set as a required course, in some colleges included thinkers from ancient Greece to Marx (1868) or Keynes (1936), while in others this constitutes only the first part of the course out of two or three parts.

The sixth stage, Adaptation, from 2000 until present, is characterized by the secondary changes in economic instruction, including selectivity in instructional literature, better instruction,

professional development, and changes in curriculum to make it more applied and responsive to the market demands, often emphasizing marketing in lieu of microeconomics and management in lieu of macroeconomics. This stage is also characterized by the competition among economic programs as a “race to the bottom” to offer cheaper and easier degrees. Strive for prosperity and financial survival during the financial crisis of 1998 contributed to this race.

The seventh stage, Selective successes, from 2000 until present, achieved by a handful of leading universities in the FSU, is characterized by the world level of teaching and course content, use of foreign languages and foreign literature, great selection of own and imported textbooks and periodicals, instruction by invited visiting professors from abroad etc. These few universities include Moscow State University (MGU), State University “Higher School of Economics,” and the New School of Economics in Moscow, and Kyiv-Mohyla Academy in Ukraine.

Performance

Performance of both faculty and students is a considerable factor for a successful reform. Performance depends on who teaches, how student performance is measured, and whether mechanisms for student feedback are in place.

Instructors

Economic theory in Soviet times was not presented only by the Marxist political economists, although they always played a leading role in teaching economic theory. The other group of economic instructors consisted of those who taught a number of economic disciplines

based on mathematical methods. A well-known discipline of this type is economic cybernetics that combines knowledge and training techniques from such disciplines as econometrics, operational research, game theory, theory of probability, and computer programming. In the early 1980s, there were two distinct groups of professors of political economy.

The first group taught Marxist political economy based on their beliefs in its truthfulness, precise vision of world events, and Marxist philosophy. Many of those professors saw contemporary economic changes in different parts of the world as predicted by Marx and so believed in the explanatory power of Marxism. They also shared Marxist ideology and placed this ideology over the economic theory itself.

Marxist political economy is based on the labor theory of value, which was established by Adam Smith and David Ricardo. Western economics is based on the theory of marginal utility which is itself based on the mathematical works of Austrian Marginalists. Both of the theories are independent, self-sufficient, self-explanatory, and in many instances mutually exclusive. Marxist political economy considers economic phenomena in a historical perspective and analyzes different types of socio-economic organizations based on the theory of exploitation of human by human. Marginalism and all the different theories based on it see their major problem as optimization within the established market system.

Marxist political economy is also supported by Marxist-Leninist philosophy and Scientific Communism. Marxist-Leninist philosophy is based on the concept of dialectic materialism drawn from the works of German philosophers Hegel and Feuerbach. Scientific Communism originates from the French socialists-utopians. The strong logic of Marxism and its applicability to many real economic and political events make it vital even one hundred and fifty years after its appearance on the scene of economic and political life. This last observation is a

stem for the faculty members who truly believe in the advantages of Marxism as the only correct economic theory verified by time. For this group of professors, teaching anything different from Marxism meant going against their beliefs and changing their philosophy.

Another group of political economists was more pragmatic. Professors who belonged to this group also taught Marxist political economy since it was required. Outside the classroom, these professors discussed the basic concepts of market economics and considered their applicability in explaining the economic problems of Western market economies.

The willingness to reform the economic curriculum and instruction was different across these two groups. Marxist political economists were in opposition to the reform from the very beginning. The second, more pragmatic group was more helpful to the reform because of their inspirations but not their background. The fact is that even those interested in discussing Western economics were trained in Marxist political economy. Despite their willingness to learn and to change, their initial position was almost the same as of those who truly believed in the advantages of Marxism. Another problem was that those attracted to Western economics were a minority at the beginning of the reform. Above all, many left academia in order to join emerging private banks and companies or to start their own businesses.

There is also a third group of economists; a much smaller group of Soviet mathematical economists followed the works of Kantorovich, a Soviet economist who was awarded the Nobel Prize in Economics in 1975. Many of these “new wave” economists worked on mathematic programming and econometrics in the academic centers and universities in Novosibirsk. This type of mathematic programming adapted for the planned economy was somewhat similar to Western operational research. There were many disputes between these groups about the usefulness and applicability of each approach. The political authority favored those who were

mastering Marxist political economy while assigning technical roles to those specializing in mathematical methods.

During the 1990s, the share of graduates in sciences decreased from nine to seven percent while the share of graduates in economic specialties and management increased from fourteen to twenty two percent (Kolesov 2002). This explains the fact that the demand for economic professors is high while doctorates in sciences are no longer in demand. Also, decreased governmental financing of fundamental research and the defense industry led to a sharp decline in the demand for professionals in mathematics, physics, chemistry, and natural sciences. One of the alternatives for the displaced mathematicians was moving to the departments of economic theory. Many of them claimed that they understood graphic analysis and advanced mathematical methods of Western economics much better than did political economists. But they did not know the general concepts of either political economy or economics. Also, they faced strong opposition from the well-established political economists who were unlikely to give up their places in academia.

In some leading universities this conflict was partially resolved by assigning political economists to continue teaching all basic courses and courses not overloaded by the mathematical methods. Mathematicians were assigned to teach computer-based courses and some intermediary courses like microeconomics and econometrics. Therefore, in almost all economic departments there are now several economic professors who have had undergraduate training or even doctorates in mathematics or computer sciences. This situation was quite common for the leading economic departments even during the Soviet times when the departments employed good mathematicians or specialists in informatics and computer sciences to represent the “technical wing” of the department. However, even now, a professor of

mathematics occupying the position of the head of the department is considered a temporary option and something really inappropriate.

Kovzik and Watts point out that the extent of the role of mathematics in a department's curriculum, and what kind of person will be assigned to teach a course, often depends on the background of the head of the department. At MGU, mathematicians teach most of the intermediate and advanced courses in economics. A strong department of mathematical methods of economic analysis offers students the option of enrolling in mathematically based courses in microeconomics and macroeconomics (Kovzik and Watts 2001: 87).

Western economists involved in the economic reforms tended to explain all the failures by corruption, making it a magic word and relieving themselves from any further obligations of explaining possible causes of economic crises. Soviet economists were accusing their western colleagues of scholastic, formalized approaches to the issues and weak understanding of fundamentals of economic transition. This confrontation over the subject of economic transition has only exacerbated hostility that already existed for decades. Generally speaking, Post-Soviet economists were not welcomed to the international and regional professional meetings in the 1990s and 2000s as well. In response, they continued to criticize western orthodoxy by using the same orthodoxy of Marxism.

Performance and Accountability

Many courses at MGU and other leading universities now require students to take quizzes and midterm examinations in addition to the final examinations. The homework, quizzes, and midterms feature multiple-choice questions, problem sets, and essays. Final grades in these

courses are a combination of the scores on the home-works, midterms, and finals. This system is common in universities in Europe and the US. In the Soviet system, grades for the courses were normally assigned based on in-class activities and participation, homework, and final examinations, most of which were taken in oral form rather than in writing.

Kovzhik and Watts (2001) point out that it took several years for professors at Belarus State University to implement changes in the procedures for the state examination. Currently the exam consists of two parts. Students take a written exam that includes 50 multiple-choice questions that are identical to the questions from the subject GRE in economics. On the next day students take an oral examination with questions from Marxist political economy, microeconomics, macroeconomics, international economics, economic policy, applied economics, and the history of economic thought. The questions are distributed according to the lottery principle. It is quite possible for a student to obtain a high score on the first part of the examination and fail the second part, where the question might ask a student to describe the structure and logic of the first volume of Marx's Capital.

In Ukraine, for instance, examinations are administered in writing in the state higher education institutions, in order to enhance objectivity in grading, while most of the private universities have either oral or writing format, or leave it up to the professor to decide. This approach may seem to be somewhat more subjective. Also, professors are free to assign a final grade based solely on the student's performance on the final examination or a number of performance indicators, including in-class participation, midterms, and even attendance.

To measure the performance of teachers and students, arranging the mechanism of feedback is crucially important. It is necessary to receive feedback from the instructors on the content and introduction of new courses, new textbooks, and new techniques. It is also important

to administer course evaluations to receive feedback from the students. Both types of feedback will be helpful in organizing and improving the economic curriculum, content of the courses, and teaching methodologies.

Learning

Enrollments in economic programs have increased dramatically since the beginning of economic reforms. Every state university now offers for-tuition programs in economics. In most of the state universities the number of students in for-tuition programs constitutes the majority. In some state universities for-tuition programs in economics are the only option. All the private universities have economic specialties.

An increase in enrollment does not lead to an increase in student preparation. If in Soviet times strong mathematical skills were used as a criterion for selective admission to economic programs, now one of the main criteria is the ability to pay tuition. Many students in for-tuition programs in state universities and students in private universities do not have a strong mathematical background. This creates a significant problem in teaching market-type economics because the latter does require strong mathematical skills, especially for the graduate students. If professors rewrite their teaching materials based on the new mathematical techniques, students will need the necessary skills to handle these new techniques.

Students should learn mathematical methods for economists, why these methods are important, and how they may and should be applied in economic analysis and decision-making. Economic curriculum has always contained a substantial block of mathematics-related courses. What may be needed are mathematics-based economics-related courses. A heavy emphasis on

mathematics continues in the current undergraduate program at MGU, generally exceeding that found in departments of economics of European and US universities (Kovzik and Watts 2001).

The major question is how mathematics can be incorporated into economic instruction. It seems an impossible task unless the faculty in mathematics and economic cybernetics will cooperate with the faculty in economic theory. In this case students will be able to see the connection between mathematics and intermediate and especially advanced courses in economic theory, which often require prerequisites in mathematics. The recent economic curriculum at MGU also allows students to take elective courses on various mathematical methods. The students are also free to choose a specialization in applied economics with an emphasis on mathematical methods. This situation, however, is not common for the economic programs in most of the region's higher education institutions (HEI). The Dean of the Department of Economics at MGU notes that many new HEIs in Russia offer "international" diplomas that attract students by using exotic course titles. Kolesov believes the level of instruction provided in these new programs is well below international standards, and the level of economic instruction at MGU is far above the average in the FSU (Katalog 1995, 2000). The progress in reforming economic instruction and student learning at MGU is achievable for many other economic programs and may be a guide to success.

Implementation

Implementation is of primary importance for the reform, in which second order organizational changes need to take place. A critical assumption underlying the design is that well-structured, coherent, focused, and sustainable implementation of key design components, including professional training, retraining, development, curriculum and instructional materials,

content and performance standards, measurements for assessments, organization, administration, management and governance, parent and community involvement, and the external influence of the market will eventually change college and classroom learning environments and thereby students' academic outcomes. Implementation should be based on the theory of action, which is necessary for understanding the organizational setting and conditions under which the reform might work.

Implementation depends on a teacher's beliefs, knowledge, attitude, and reform priorities. Implementation dominates outcomes (McLaughlin 1997). The centralized administrative effort in implementing the reform did not have a systemic character and exhausted itself. Vinovskis (1996) says that systemic reform is used to describe attempts to create a more coherent, curriculum-driven reform effort. This paper suggests that there should be a coordinated effort based on cooperation within plural forms of organizational structures in education. Coordination within universities means cooperation between departments of mathematics, economic cybernetics, and economics in introducing new courses, such as microeconomics, game theory, and econometrics. Coordination between universities means encouraging leading universities to organize full-time formal courses in Western economics for the faculty members from the other universities with less advanced departments of economic theory. Universities will finance sabbaticals for the faculty-participants and the government will finance these retraining programs.

Competitive salaries should be offered to those trained in Western economics so that they will consider academic career as an alternative to their present occupations in private firms and offices of international organizations. Special knowledge should have the same weight as a doctoral degree and teaching skills for employment decisions. The government should coordinate this process by creating financial and other incentives, but every university should be free to

choose the curriculum and organizational structure. For McLaughlin: “Policy success depends on local capacity and will. Change ultimately is a problem of a smallest unit.” (McLaughlin 1987: 172)

There are several organizational changes that need to be made. The capacities of different universities to introduce new curriculum vary. Bachelor and Master Degrees should replace the five-year Specialist degree. The most advanced schools will be able to create strong Master’s programs while the others will focus on the undergraduate programs. This will also help to address school-specific demographics, structure, and culture. The affiliation of a student with a particular department within the school of economics should not determine his major. Instead, students should be allowed to choose their classes. This will create an incentive for the faculty to improve their instruction and to create new and better courses to attract more students.

Changes in the curriculum structure should include separation of the core courses from the electives, including those from other disciplines. The content of the courses should be detail-oriented. This will require a decreased number of classes per semester and an increased amount of time for each class. Economics and Management majors should be separated at the Master’s level. The complexity and sequence of the courses are important. Course design and ability to offer coherent, comprehensive, and consistent programs are crucial for economic departments to prosper. Such a strategy of organizational and content changes will help restructure educational process to conform to principles laid by Bologna declaration.

The faculty should master new textbooks and new methods of analysis to link research and teaching. Motivation is a key element here. The matching process between the design of the new programs and the school needs and the capability of faculty is needed to ensure that instructors “buy in.” Financial incentives should be created to encourage the instructors to

participate in retraining, change the content, methodology of instruction, and mode of delivery, and work effectively in the classroom. State control may be ineffective and so local control on the university and departmental levels is suggested. This will create coordination of funding policy and accountability.

The changes based on a theory of action are the second order changes. They require new goals, new content, new structure, and a changing setting for the reform. The academic and political environments play a significant role in implementing the reform. McLaughlin points out that “Motivation or will also is influenced by factors largely beyond the reach of policy. Environmental stability, competing centers of authority, contending priorities or pressures and other aspects of the social-political milieu can influence implementer willingness profoundly.” (McLaughlin 1987: 173) Faculty had the task of internalizing new curriculum along with the change in intrinsic and extrinsic values.

The creative pedagogical process in economic instruction should be given priority. Clune states: “Content and pedagogy, the material actually conveyed to students in classrooms and the instructional methods by which it is taught, make up systemic curriculum. Content refers to the knowledge or skill that students are supposed to learn in subject areas like algebra and geometry, as well as skill areas like computation, problem solving and conceptual understanding. Pedagogy refers to whether students discuss and solve problems if the goals are problem solving and communication.” (Clune 1998: 4) Introduction of formal courses in economics combined with creative modes of delivery will enhance level of preparation of students majoring in economics. The outcome will finally depend on teaching and learning within the classroom.

Conclusion

Economic instruction in the former Soviet Bloc is undergoing a significant transformation. The reform, however, turned out to be less successful than expected in part due to the absence of a clear strategy on the side of the state. Major mistake of the central government was its alienation from the reform of the content of economic instruction. This self-distancing had especially significant negative impact on the reform because of the leading role of the government through the history of educational policy in the country. One of the best examples of this taken from the recent Soviet history would be establishment and development of Novosibirsk as a major academic center in the country, with all of its higher education institutions and research institutes and laboratories. It was a mistake for the government to rely on market forces at early stages of the reform.

Insignificant resources channeled to the retraining of faculty members based on their visits abroad and funded mostly by Western NGOs and international organizations could not potentially change the situation radically. Faculty visits to such institutions as Central European University, Vienna Economic Institute, London School of Economics, and few US universities exposed the faculty to the practices of teaching economics in general rather than to the content of economic disciplines themselves. While some of the faculty members-participants of such visits had some positive impressions from their experiences abroad and were in support of changes in curriculum or at least not in opposition to it, others had predominantly negative impressions and later confronted changes in their home institutions. In any case, formal training in specific economic disciplines was absent and so vast majority of the participants continued to teach the same courses using same teaching techniques.

Centralized top-down approach to the reform has proven to be effective only at the beginning of the reform in the early 1990s. Notorious two volumes of *Economics* by McConnell

and Brue was introduced by the Ministry of Education and recommended to all the higher education institutions to be included in economic curriculum. All the features of the older instructional traditions and institutional rigidity that are considered major obstacles for the changes are as common in post-soviet institutions as they are in European and North American colleges. Syllabi are passed from generation to generation with minor updates while major changes in curriculum are not welcomed.

Starting in 1991, instructors began introduction of new courses mostly without any systematic guidance from the top, while having their salaries cut substantially during the following decade by both the government and inflation processes in the economy. In the best Soviet tradition, these necessary initiatives were grounded in enthusiasm of the instructors. As it happened before, enthusiasm did not last long and soon the instructors stopped at the achieved level of basic courses in micro- and macroeconomics, finance, investment etc., focusing instead on making money from newly organized for-tuition programs in economics. Increase in popularity and enrollments in economic programs along with the lower quality of students reinforced this trend of switching from the quality instruction and mastering of the new content to organizing educational degree programs as money-making enterprises.

In the mid-1990s, Russian economists concluded that the emerging market economy needs accountants and managers and not the economists in its classical understanding. Soon this strategy was adopted by all the economic programs on the territory of the former Soviet Bloc. This was a serious blow for those few who were still working on developing fundamental economic disciplines. Considering best economic programs in Europe and the US as an example for fast development of own curriculum was yet another fault. While the Ivy League universities undoubtedly represent the best of what one can find in economics, most of economic programs

exist in large public institutions, small liberal arts colleges, and community colleges and offer strong but average undergraduate level of economic instruction. These programs should have been adopted as an example for the reform. In this case the goals would appear to be more realistic and achievable rather than ambitious and costly. Very few higher education institutions can afford being involved in expensive projects of creating world class economic programs and only with the presence of strong external support.

Most recent processes of introducing national standardized tests and involvement in Bologna process, based on acceptance of Lisbon convention and Bologna declaration, added more contradictions to the instruction of economic disciplines, now initiating changes in length of the programs, including transition from the five year specialist degree to the two-level system of Baccalaureate and Magisterium. To summarize, the state has failed to follow the scheme Concept—Design—Implementation—Outcomes—Accountability, including monitoring and evaluation of what really happens in the classroom.

Teacher retraining should be encouraged by the government and by the market demands and coordinated both within and between the universities. The faculty should master new textbooks and new methods of analysis to link research and teaching. The successful reforms of economic curriculum and teaching methods in the leading Moscow universities indicate the potential of the system and confirm ways for future development. A multiplicity of forms of economic instruction should be further developed based on both market demand and the guidelines and support from the state.

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APPENDICES

APPENDIX I

There were six leading universities in the former Soviet Union, including Moscow State University, Leningrad State University, Kharkov State University, Kiev State University, Kazan State University, and Novosibirsk State University. All but Novosibirsk State University were founded in 1750-1800 years. All of them are classic universities. Novosibirsk State University was established in order to support the development of Siberia and was a place where many young scientists from Moscow and other leading universities moved to develop their careers. Some of the universities changed their names. Leningrad State University became St. Petersburg State University, Kiev State University became Kiev National University, and Kharkov State University became Kharkov National University. All of them reformed teaching curricula, especially in economics. But all of them still keep leading positions in higher education in the FSU. With increasing role of economic instruction in higher education there are several other top schools emerged, among which are New School of Economics in Moscow and Kiev-Mohila Academy in Kiev. There are number of state universities with large and relatively strong schools of economics, but all of them recognize leading role of those listed above and try to develop programs in economics and management at par with the leading ones. To the extent that contacts between the schools still exist, the leading universities, as before, are a benchmark for the rest of higher education institutions and represent higher education of the FSU on international arena.

APPENDIX II

Table 1

Russian Political Economy Curriculum, Pre-1992

Name of the discipline	Name of the discipline
General courses Political economy a) precapitalist modes of production and general fundamentals of capitalism (212) b) Monopolistic capitalism – imperialism (68) c) Socialism (136) History of Soviet Union (176) Marxist-Leninist philosophy (244) Scientific Communism (140) Scientific Atheism (24) Economic history of capitalist countries (54) Economic history of socialist countries (50) Economies of foreign countries (54) History of economic theories (220) Soviet legislation (36) Industrial economics (90) Agricultural economics (18) Nonproductive spheres of the economy (54) National economic planning (124) Statistics: a) Theoretical and mathematical statistics (104) b) Economic statistics (140) Accounting (40) Enterprise activity analysis (70) Mathematical methods of economic analysis (54) Mathematics: a) Mathematical analysis (140) b) Linear algebra (104) c) Mathematical programming (50) d) Theory of probability (56) Data processing 984) Foreign language (400) Methods of lecturing on political economy (64)	Required special seminars Marx's Capital (190) The theory of imperialism (100) Political economy of socialism (130) Required special courses Criticism of modern bourgeois political economy (30) Demography (32) Labor economics (32) Finance and credit (30) Management of national economy (68)* Economics of natural resource usage (32) Electives Improvement of economic mechanisms (14) Regional management (72) Economic criteria of developed socialism and problems of improving the production relations during its initial stage (32) Management of scientific and technical progress (32)* Methodological problems of development of systems and categories of political economy of socialism (32) Utilization of technological innovations and economic development (15) Development of socialist production management theory (15) Course paper (annual): second, third, and fourth years. Practice (internships) Diploma thesis State examinations :

Psychology (36)	Scientific communism
Physical training (140)	Political economy

Hours are given in parentheses

* Management is not very appropriate term here, first of all because it does not correspond with the real meaning of management, and, secondly, management was one of the enemy-type terms, which were never used in the Soviet Union.

Table 2

Russian Political Economy Sequence, pre-1992, Moscow State University

Name of the discipline
<u>First year: Political economy: Pre-capitalist modes of production and general fundamentals of capitalism</u> The subject of political economy and the main features of the method Pre-capitalist formations Commodities and money The transformation of money into capital Production of surplus value as the law of development of capitalist production Wages Process of capital accumulation. The general law of capitalist accumulation The circuit of industrial capital The reproduction and circulation of the aggregate social capital* Profit and the cost of production. The law of the tendency of the rate of profit to fall Commercial capital and commercial profit Interest-bearing capital, the credit system, and money circulation under capitalism Land rent. Agrarian relationships under capitalism Revenues and their sources. National income under capitalism Economic crisis
<u>Second year: Monopolistic capitalism – imperialism</u> Concentration of production and monopolies Financial capital and financial oligarchy State-monopolistic capitalism Relationships between labor and capital under the conditions of modern capitalism The system of world dominance of the financial capital. World capitalist economy Reproduction of the social capital under the conditions of scientific-technical revolution The historical place of imperialism The general crisis of capitalism
<u>Third year: Political Economy of socialism</u> Economic laws of the growing socialism. Stages of the development of the communist mode of production Social ownership of the means of production as the base of the socialist economic system Planning of socialist production. The law of planned development The main production relationship of socialism. The main economic laws Results and expenditures of socialist production. Effectiveness of production Commodity-money relationships. The law of value under socialism Distribution relations and achievement of social justice Agrarian relationships in a socialist society Socialist extended reproduction: the main features and advantages Accountability and efficiency of enterprises Incomes of fully-accountable enterprises: content, structure, and distribution

Planned pricing

Economic mechanism of socialism: content, structure, improvement

Economic relations between the socialist countries of the world

Acceleration of the socio-economic development and communist perspective

*Social capital here used to name total wealth of the nation and should not be mixed with the term social capital in its line with human capital.

Table 3

New undergraduate curriculum in economics: required courses for general economics
specialization, Moscow State University, 1992

Name of the discipline
Theory of general economics (principles of macro and microeconomics)
Theory of the world economy
Mathematics
Introduction to economic modeling and mathematic theory
Economic geography and regional economics
State regulation and planning of national economy
Economics of enterprises
Economics of agrarian sector
Environmental economics
Economics of foreign countries
Economic informatics
Accounting and economic analysis
Currency circulation and credit
Finance
Introduction to management
Economic history of the former Soviet Union
History of economic thought
Politology (principles of political science)
Statistics
Demography
History of religion
Philosophy

Table 4

Coursework for the economic degree at Moscow State University, 1998-2000

Required courses	Elective courses
Microeconomics I (102) Microeconomics II (68) Macroeconomics I (96) Macroeconomics II (64) Theory of the Transitional economy (68) History of economic thought (132) Economic history (115) International economics (68) Industrial economics (68) Institutional economics (30) Economics of the public sector (68) Environmental economics (64) Economics of the agrarian sector (30) Economics of the Firm (68) Accounting (64)* Financial Markets (64) Firm's finance (68) corporate finance Banking (40) Economics of population and demography (64) Economics of labor and labor resources (68) Management (32) State regulation of national economy (macroeconomic forecasting and stabilization policies) (64) Economics of foreign countries (64) Econometrics (66) Statistics (general theory) (68) Statistics (socioeconomic statistics) (64) Mathematical statistics 64) Operations research (64+68) Game theory (34) Economic cybernetics (32) Mathematical analysis (132+132) Linear Algebra (115) Probability theory (68) Informatics (management information systems) (132) Economic geography (68) History of the fatherland (51) Political logic (40)	Natural science for economists (64) Discrete mathematics (64) Introduction to political economy (64) History of world civilizations (64) Economic systems in the economy structure (68) Theoretical analysis of economic systems (132) Theoretical seminar on transitional economy (64) Theory of economic development (68) Multidimensional statistical analysis (68) Applied operation analysis (64) Basics of risk management and insurance (64) Sociology (64) Mathematical Sociology (64) Modern system of market economy (51) Areas of specialization (during 7 th and 8 th semesters) Economic theory (216) Mathematical methods of economic analysis (216) Economic and social policy (216) International economics (216) Financial economics (216) Economics of the firm and industrial organization (216)

Philosophy (68)	
Foreign languages (636)	

Academic hours are given in parentheses

*Western-type course-title "Accounting" instead of "Bookkeeping" does not make a difference by itself, unless there is a change in the content.

Table 5

Coursework for the economic degree at Kharkov National University, 1990-1995

Name of the discipline	hours
Political Economy	140
Economic Theory	360
Philosophy	140
History of Economic Thought	200
Politology	90
History of World and National Culture	54
History of Economy	106
Highest Mathematics	140
Theory of Probability and Mathematic Statistics	70
Mathematic Programming	36
Economic Informatics and Calculation techniques	126
Systems of Technologies of Branches of Economy	72
Economics of Environment	34
International Economic Relations	36
Statistics	180
Foreign Language (English)	320
Advanced Seminar "Marx's "Capital"	120
Accounting with Foundations of Economic Analysis	100
Economic Analysis	104
Mathematic Methods of Analysis of Economy	60
Economics of Enterprises, branches, and Inter-branch Complexes	150
Monetary Circulation and Credit	36
Psychological-Pedagogical Foundations of Work of Economic Theory Lecturer	36
Methodic of Teaching of Economic Theory	36
Economics and Sociology of Labor	36
Labor Resources and Employment	36
Functioning of Economic System of Modern Society	132
Methodic and Technique KSD	18
Automated Systems of Data Processing	48
Budget Accounting and Audit	36
Law	54
Demography	36
Foundations of Market Economy	36
Management	57
Introduction in Business	36
International Trade	36
Human Resource Management	30
Marketing	56
Pricing	18
Mechanism of Privatization	36

Actual Problems of Economic Theory and Management	36
Structure and Development of Economic System of Society	30
Business Management	54
Exchange in Market System	24
Determinants of Functioning of Sphere of Services	48
Tax System in Ukraine	72
Insurance	14
State Regulation of Economy	105
Plan and Market Foundations in Economy of Ukraine	34
Banking and Bank Management	36
Financial Management	24
Theory and Practice of Economic System Reform	48
Finances of Macro- and Microeconomics	36
Additional Disciplines	
Physical Training	
Practice	
Educational Practice on IBM	
Course Research Papers:	
Economic Theory	
Economic Analysis	
Practical training	
Defended Diploma Thesis	
Completed State examinations: Business Ukrainian Language, Economic Theory	

APPENDIX III

Economic Curriculum in the New Economic School (NES), Moscow

The program of study at NES is based on the first two-years of study in leading PhD programs in Western universities. This Western-style graduate program is supported by the NES Research Center, where second year students participate in research projects, and write their Master's theses under the supervision of and in close cooperation with leading Russian and Western scholars

Curriculum for the Master of Arts in Economics program for the academic year 2003-2004

Preparatory level Coursework (2 two-month modules with exams):

Intermediate Micro

Intermediate Macro

Math for Economists

Probability and Statistics

Game Theory

Graduate level Coursework (3 two-months modules with exams):

Advanced Micro

Advanced Macro

Econometrics

Second year Coursework (5 two-months modules with exams):

Coursework during the second year is comparable to PhD level course offerings in Western universities. Students take specialized courses designed to give them a mastery of several sub fields of modern economics. Typically, the following choice of electives is offered:

Public Economics

Growth and Development

International Economics

Industrial Organization

Labor Economics

In the academic year 2003-2004 six special fields were introduced:

Finance

Economic policy

Data analysis

Industrial Organization and Trade

Microeconomics

Macroeconomics.