The Evolution of Ukrainian Economy: New Trade Theory Evidence

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1. Introduction

As the contradictions of capitalistic production increase and globalization processes proliferate, the economic principles of industrial and investment activity and international trade are going through continuous transformation. Even though the rule of comparative advantage remains important in explaining business motives at both national and trans-national levels, it is unable nowadays to reflect the whole palette of economic phenomena and processes that predetermine the development of the leading industrial countries and big multinational corporations.

At the close of 20th century originated a qualitatively new international trade paradigm peculiar to advanced industrial countries. On the one hand, advanced industrial countries and their multinational corporations in their cooperation with developing and transition countries follow the traditional trade theory principles. On the other hand, the industrial and trade relations between the advanced countries themselves take on a different format. It is characterized by the development of international intra-industry specialization, the basis of which consists in differentiated capital- and R&D-intensive goods, deepening trade (economic) integration, strengthening industrial and sales positions of transnational corporations of advanced countries on the domestic and foreign markets. These processes made for the appearance of a new fundamental theoretical and empirical research, which underlay the formation of the New Trade Theory.

This problem takes on special significance in examining the progress of Ukraine on its way to market reforms and European economic integration. Proceeding from the experience of Central and Eastern European countries (CEEC), the processes of Ukraine's economic liberalization and approximation of its level of economic development to that of the EU-members should stipulate for transition of the national economy onto the dimension which explains industrial and trade relations through the prism of the *New Trade Theory* postulates coupled with *Traditional Trade Theory* principles.

2. New Trade Theory in Explaining Actual Economic Processes in Global Economy

New Trade Theory evolved with the works of Krugman (1979) and Helpman and Krugman (1985), who assumed that international trade between countries with similar factor proportions occurs mainly in differentiated varieties on the basis of increasing returns to scale (increasing scale economies). These basic principles cannot fit within the traditional neoclassical models of the Heckscher-Ohlin theory postulating the development of inter-industry trade between countries a result of differences in their relative factor endowments.

New Trade Theory focuses primarily on the problems of international industrial specialization of advanced countries, convergence of their industrial

and demand structures, as well as development of the international trade among advanced countries which has taken on an intra-industry character during the past three decades (Falvey (1981), Aquino (1978), Balassa (1986), Bergstrand (1983), Fontagné and Freundenberg (1997)).

Besides, close attention is paid to the increasing role of transnational corporations in global economy and their impact on the evolution and nature of international specialization of the developed, developing and transition countries (Markusen (1984, 1998), Markusen and Maskus (1999), Muchielli and Burgenmeier (1991), Brainard (1993), Brenton et al. (1999), Ekholm (1997)). Today, nearly 93% of total world FDIs falls on the share of multinational corporations (MNCs) of the developed industrial countries, 25% of which is a share of American MNCs and 55% -- of the MNCs of EU-15 origin. Throughout recent years, FDI outflows from the EU-15, USA and Japan have been growing faster than their international trade. In 1993-2003, the average growth of FDIs from these countries made 15.9% compared to average growth of their international trade of 6.7% (in 1993-1999 – 30.9 % and 7.5% respectively)[1]. This trend shows that during the last decade, the growth of economic activity in advanced industrial countries and global economy as a whole was primarily driven by the investment component (See *Tables 1 and 2*).

Table 1. Total FDI (Inflows + Outflows) Growth in the Global Economy, 1994-2004.

Regions	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	1995-2004**
	Cumulative Total FDI (Inflows + Outflows) Growth, 1994=1										Average Total FDI Growth, %
World	2.30	3.58	5.33	7.79	11.93	16.85	19.99	22.72	25.21	27.97	14.56
Europe	2.41	3.68	5.37	8.36	14.12	21.23	25.03	28.73	32.11	34.53	17.11
North America	2.24	3.50	5.32	7.88	11.58	15.53	18.09	19.92	21.38	24.06	16.17
Central and Latin America	2.18	3.88	6.63	9.38	13.42	16.81	18.99	20.89	22.73	25.45	15.11
CIS*				1.29	1.66	2.00	2.39	2.90	3.94	5.27	21.85
Asia	2.17	3.35	4.70	5.75	7.02	8.84	10.29	11.55	12.67	14.82	12.11
Middle				1.26	1.52	2.04	2.42	2.79	3.07	3.55	

[1] Calculated by author on the basis of data from OECD International Direct Investment Database.

											11.02
East*											11.02
Africa	2.26	3.48	7.15	9.62	15.38	19.70	27.12	32.43	40.11	48.44	39.58

Notes: * 1997 = 1.

** For CIS and Middle East average total FDI growth is calculated for 1998-2004 on the basis of growth to previous years.

Source: author's calculations based on UNCTAD World Investment Report 2005.

Table 2. Growth of International Trade in Goods and Services in the Global Economy, 1994-2004.

Regions	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	1995-2004**
	Cumulative Growth of International Trade in Goods and Services, 1994=1										Average Growth of International Trade in Goods and Services %
World	2.18	3.43	4.72	5.99	7.33	8.81	10.26	11.77	13.52	15.64	8.04
Europe	2.21	3.46	4.72	6.05	7.39	8.80	10.22	11.72	13.53	15.67	8.19
North America	2.11	3.31	4.63	6.00	7.49	9.20	10.82	12.44	14.17	16.15	7.25
Central and Latin America	2.20	3.46	4.87	6.27	7.58	9.07	10.52	11.88	13.36	15.22	6.88
CIS*				1.85	2.59	3.52	4.51	5.61	6.97	8.78	10.27
Asia	2.20	3.45	4.74	5.88	7.12	8.58	9.94	11.40	13.09	15.21	8.40
Middle East*				1.93	2.98	4.32	5.60	6.93	8.49	10.45	10.91
Africa	2.17	3.39	4.66	5.84	7.05	8.40	9.73	11.09	12.76	14.89	8.31

Notes: * 1997 = 1

** For the CIS and the Middle East average total FDI growth is calculated for 1998-2004 on the basis of growth to previous years.

Source: author's calculations based on data of International Trade Statistics WTO 2005.

At the same time, the commodity production of MNCs substituted for national commodity production in Europe, Northern, Central and Latin America, Africa, and the Commonwealth of Independent States (CIS) (See *Table 3*). In this context, the model of Markusen and Venables (1998) demonstrates how economic integration between advanced industrial EU-countries leads to convergence of their economic sizes, as well as to equalization of their relative factor endowments and production costs. This induces companies of advanced countries to both use the increasing returns to scale and look for new production locations with comparative advantage and outlets abroad. As a result of such strategies, the activity of transnational corporations substitutes for international trade in goods and services produced by national companies.

Table 3. FDI Inflows to Regions as a Share of GDP, %

Regions	1994-1999	2000-2004
World	1.8	2.7
Europe	2.3	4.7
North America	2.6	8.0
Central and Latin America	3.3	3.4
CIS	1.4	2.2
Asia *of which*	1.2	0.7
New Industrial Countries	1.8	1.6
Japan	0.19	0.17
Middle East	1.16	1.15
Africa – 51 countries	1.0	7.0

Source: author's calculations based on statistical data of the IMF and UNCTAD (2005).

Table 4. FDI Inflows to and Outflows from Regions as a Share of GDP, %

Regions	1994-1999	2000-2004
World	3.6	5.6
Europe	5.8	9.9
North America	5.5	12.6
Central and Latin America	3.5	4.0
CIS	1.7	3.3
Asia *of which*	1.7	1.8
New Industrial Countries	2.5	2.8
Japan	1.6	0.9
Middle East	1.2	1.3
Africa – 51 countries	1.2	7.3

Source: author's calculations based on statistical data of the IMF and UNCTAD (2005).

The New Trade Theory initiates a discussion about the static and dynamic advantages (gained within the traditional neoclassical theory only under free trade and accelerated economic liberalization) a country achieves under imperfect competition (Krugman, 1985) and interventionist economic policy (Bhattacharjea (1995), Anderson and Neary (1996), Brainard and Martimort (1997), Eaton and Grossman (1986), Fuerst and Kim (1997)).

In the traditionally neoclassical sense, gains from international trade -- as a source of economic growth -- are maximized through adjustment, by means of economic liberalization of the uneven factor and resource re-allocation generated by the interventionist industrial policy at the domestic market with the goal of import substitution or export orientation.

In the process of deepening economic liberalization and intensifying functional market competition (Fritsch et al., 2003), which is in fact a prototype of perfect competition, the production factors and resources start to move inside the country from inefficient to efficient industries, thus ensuring optimal development of the economic system and international trade. Gains from trade are reflected as a comparative advantage based on differences in relative factor endowments and production technologies between the countries and revealed perfectly under free trade.

Gains from international trade within the scope of New Trade Theory are generated and maximized when firms increase their production facilities and consolidate through mergers and acquisitions (M&A) in order to rationalize production, reduce average costs and thus achieve better positions on the foreign markets. These steps become an objective necessity for the firms of advanced industrial countries in the Old economy because of the overproduction problem conditioned by highly differentiated consumer demand.

Hence, the rationale behind gains from international trade is not the comparative advantage any more, but the increasing returns to scale. For the firms to realize increasing returns to scale, a country should provide open economy conditions, including international competition on the domestic market. However, when firms achieve their increasing returns to scale, the imperfect competition appears. The market structure acquires properties of monopolistic competition, with free market access and international trade in goods differentiated by price and quality. The dominant positions on the monopolistic market with high competition belong to MNCs because they own substantial financial resources and international channels of technology development, and are better able to carry out R&D activities and elaborate a new differentiated product for consumers. Under monopolistic competition, the effect of internal increasing returns to scale is generated when production unit costs depend on the firm's size. Average cost reduction effects under increasing returns to scale can be described with the following equation:

$$TC_X = FC + (VC_X)X,$$

where TC_X – total costs, FC – fixed costs, VC_X – variable costs, X – output. Consequently, average production costs are equal to TC_X/X. The larger the

production scale gets, the smaller the average production costs are, given variable costs are constant:

$$AC_X = FC/X + (VC_X),$$

where AC_X – average production costs.

The market structure can also be characterized as oligopolistic when several companies determine the situation on the market (in certain industry) by setting arrangements among themselves concerning prices of differentiated and homogenous goods or their volumes.

Under monopolistic and oligopolistic competition, the international trade is based on various foreign market penetration strategies used by consolidated companies. Various forms of production and trade transnationalization become an essential element in the activity of big companies of the advanced countries and require that these companies look for efficient mechanisms for foreign market penetration and consolidation of positions on these markets, in particular by means of close cooperation with governments of the countries that act as recipients of transnational activity.

The development of imperfect competition can create difficulties for market access and/or functioning of new firms in the markets, lead to unfair business practice, and increase the "race to the bottom" effects. These problems, on the one hand, can weaken the entrepreneurship initiative, while on the other, negatively affect the conditions of work and welfare of workers as final consumers.

Hence, in view of the modern tendencies in the development of international trade in global economy and transformation of its paradigm for advanced industrial countries, one should distinguish four main modifications of the neoclassical basics of international trade theory, namely (1) the problems of market imperfection; (2) the strategic industrial behaviour of businesses and governments under imperfect competition (new industrial economic theory); (3) the new theory of economic growth; (4) the arguments of political economy.

In addition to monopolistic and oligopolistic competition and their derivatives, market imperfection is reinforced by the phenomenon of information asymmetry. For understanding the strategic industrial behaviour of businesses and national governments, we can use the game theory, the inter-temporal optimization for temporal conjunction between state economic policy and economic processes or business activities.

The working paper by Ionaşcu and Žigić (2001) belongs to most well-grounded and accurate studies of information asymmetry in the context of strategic industrial and trade policy used by governments and firms under imperfect competition. On the basis of fundamental research works (Brander and Spencer (1985), Brander (1995), Neary and Leahy (1997)), Ionaşcu and Žigić examine the choice of strategic R&D investment behaviour of a firm that operates under Cournot competitive conditions (production volume approach) or Bertrand competitive conditions (price approach) for the case of absolute Nash-equilibrium. At that, it is assumed that R&D-investment can increase the firm's

production efficiency by reducing its production costs and improve its terms of trade on the foreign markets. At the same time, the research takes into account the problem of information asymmetry between the country's government – which pursues certain industrial and trade policy to benefit from international trade and achieve the desired social and economic effect by encouraging private sector R&D-investment – and a particular firm, which, on its part, intends to profit from competition without consideration for other firms' market results and the country's overall socio-economic effect. The country's government is assumed to assist private R&D investment through industrial and export grants, thus carrying out an interventionist industrial and trade policy. The firm with higher R&D-investment efficiency functioning under conditions of Cournot competition would press towards the R&D-investment quota higher than socially-optimal level in order to accumulate more financial resources in the form of governmental industrial and export grants. From the socio-economic perspective, the above-optimal level of R&D-investment would lead to inefficient resource allocation in the country, thus inducing the government to resort to non-interventionist economic policy and ensure free trade in order to restore the economic equilibrium of the real sector. Alternatively, if a firm operates under conditions of Bertrand competition and has higher R&D-investment efficiency than its rivals, it can increase its R&D-investment to push them out of the market on the basis of price competition and consequently aggravate the social and economic situation in the country. In order to prevent price discrimination, the government would shift from non-interventionist to pro-active interventionist economic policy and impose a tax on R&D-intensive production volumes, expecting that the firm would reduce its production in response. Under conditions of information asymmetry, when, for example, the government lacks information about the type of competition on the market and cannot predict the reaction of a particular firm to announced industrial and trade policy, there is a risk of insufficient or excessive R&D-investment in the country's economy and crowding less efficient firms out of the market in the process of competition. This can negatively influence the social and economic development of the country. A firm is able to play a trick on the government and imitate the competition of a type other than existing in reality. Depending on the situation, the firm can achieve the desired effect -- either to get production grants, thus forcing the government to carry out interventionist economic policy, or evade tax on production volumes by behaving so that it would lead to state non-interventionist industrial and trade policy. The problem of market imperfection driven by information asymmetry can become especially acute due to non-cooperative behaviour of the firms and the government in the process of differentiated production and trade in differentiated goods.

The crucial factor in forming the strategic industrial behaviour in the modern global economy is the allocation of industrial production in space. In this context, in the second half of 1980s originated the *New Economic Geography Theory* within the scope of the New Trade Theory. New Economic Geography

is a science about allocation of economic activity in space. Traditional neoclassical models of international trade do not take into account economic globalization and regionalization. They assume that production factors are immobile internationally. New Economic Geography aims to explain how the economic globalization followed by economic liberalization and regional economic integration can lead to concentration of economic activity in certain geographic areas (regions), while other geographic areas (regions) reduce to de-industrialized ones because firms and labour force desert their production locations. In other words, industrial production can concentrate in a certain region or nearby. Owing to industrial agglomeration, the shaping of a "regional core" occurs, whereas other regions constitute an underdeveloped geographical "periphery". The periphery is characterized to some extent by the development of agriculture, mining, natural resources, primary processing industries, and transport (transit) services. Regions of periphery can turn into "transit deserts", i.e. they lose their significance as production locations, begin to specialize in producing transit services and act as geographical intermediaries between the areas with high economic activity.

Industrial production and international trade in differentiated goods tend to concentrate in locations where large markets exist, and large markets are where industrial production concentrates. Myrdal (1957) defined this process as "circular causation". It becomes more advantageous to set production near the core because it is cheaper to purchase intermediate and final goods there. This motivates the linkages between the firms and the suppliers of intermediate goods ("backward linkages"). At the same time, the core provides a higher living standard, a higher level of labour concentration and hence a higher level of purchasing power. The availability of a large consumer market strengthens linkages between the firms and the consumers of final goods ("forward linkages"). These linkages were extensively described by Hirschman in as early as 1958 and used by Krugman (1991), Krugman and Venables (1993), Ricci (1996), and Midelfart-Knarvik et al. (2000) to characterize new trends in the development of international specialization in the context of strategic industrial behaviour of economic agents.

The majority of the New Trade Theory models containing elements of New Economic Geography assume the availability of industries that produce differentiated goods under conditions of monopolistic competition, increasing returns to scale, and trade (transport) costs. Some New Economic Geography models raise the question of comparative advantage within the same differentiated industry in the core from the perspective of differences in technology and qualitative differences in capital intensity. Therefore, one can speak of incomplete specialization in the core. It seems doubtful that traditional Heckscher-Ohlin (Helpman and Krugman, 1985) and neo-ricardian (Ricci, 1996 and 1997) theories have entirely lost their significance in explaining international trade in advanced industrial countries.

The intensity of international trade and degree of international specialization of countries or regions (i.e. complete or incomplete specialization) are explained

by *centripetal* and *centrifugal* forces. Geographic proximity of the countries, developed transport, telecommunication networks and social infrastructure, as well as institutional framework, similarities in cultures and languages of the countries, and higher wage level belong primarily to centripetal forces. Centrifugal forces are represented by increasing geographical distance between countries, high trade costs, congestion costs (Helpman, 1998), market entry and exit restrictions, and high criminality.

Gravity modelling (Helpman and Krugman (1985), Bergstrand (1989)) serves as a methodological base for empirical evaluation of both traditional neoclassical and New Trade Theory factor influence on bilateral trade flows between countries. The gravity factors that can explain international trade within the scope of New Trade Theory include geographical distance between trading countries as a proxy for transport costs, trade costs (cumulative average customs tariff or aggregate index of economic freedom "trade policy" as a dummy variable), intra-industry trade indexes (Evenett and Keller, 1998), FDI as a proxy for multinational activities, GDP per capita and Gini income distribution coefficient for characteristics of economic size and demand for differentiated goods, as well as Gini coefficient for measuring the degree of industrial production concentration (Klüver and Rübel, 1998).

Evenett and Keller (1998) were first to prove empirically that the model with increasing returns to scale can explain excellently the use of gravity equations in the international trade theory. Feenstra et al. (2001) extended this analysis using Rauch's classification of tradable goods (Rauch, 1999). They argue that international trade models with monopolistic competition ensure success in using gravity equations when considered are not the flows of total tradable goods, but only the flows of differentiated tradable goods taken as a separate category. Based on the gravity modelling, Carrillo and Li (1995) consider the influence of preferential (regional) trade agreements on trade flows of differentiated and homogenous goods, in particular homogenous goods with reciprocal dumping. The connection between gravity modelling and international trade containing elements of New Economic Geography was presented by Redding and Venables (2000), Eaton and Kortum (2002).

New Trade Theory is closely integrated with New Growth Theory. Externalities, which are considered to result from technology and knowledge spillovers, become a source for endogenous economic growth of many countries in the process of international trade. Grossman and Helpman (1991) show in their model how international trade -- through technological knowledge spillovers -- contributes to the development of R&D industries as drivers of economic growth in the modern global economy. International technology transfer leads to increased competition, entrepreneurship initiative and enlarged size of the market on which innovative firms operate.

Other models based on international technology transfer emphasize the positive impact of economic openness on the acceleration of economic growth, focusing on the role of capital-intensive imports (Coe et al. (1995), Lee (1992)). Inasmuch as the information about new technology is embedded in

capital-intensive goods, the externalities from international technology transfer are directly proportional to capital-intensive imports.

When considering the new growth theory, many researchers with neoclassical convictions argue that international trade liberalization contributes to economic growth of a country (mostly in view of externalities from knowledge and new technology transfer), whereas some researchers think that economic openness and free trade can hinder economic growth. They reconsider the arguments for state protection of infant industries in low-industrialized countries. The experience of many poor countries shows that free trade and economic liberalization deepened the specialization based on low-technology products, while international trade barriers and state interventionist economic policy favoured the formation of a powerful industrial economic system and international specialization of a higher level in some developing countries.

3. Ukrainian Economy within the Scope of New Trade Theory

In our previous studies we determined that Ukraine's international trade specialization is mainly inter-industry in nature (Konchyn, 2005). *Table 5* presents the highest levels of intra-industry trade of Ukraine with its main trade partners in 2005.

From calculated intra-industry (IIT) indexes, we can see that, in terms of its foreign trade turnover, Ukraine reveals its highest levels of IIT with **Russia** (G-L index = 0.231 or IIT share of 23.12%; main IIT commodity groups with regard to trade volumes and value of G-L index include: iron ore and concentrates; steel flat-rolled metal; rubber pneumatic tyres; automatic analyzing and controlling instruments and apparatus; ball/roller bearings; taps/cocks/valves, fittings for tubes and pipes; insulated wires and cables; transmission shafts and cranks; engines and generators, electric; ferroalloys), **Rumania** (G-L index = 0.256 or IIT share of 25.56% thanks to petroleum oils and oils from bituminous minerals other than crude), **Hungary** (G-L index = 0.189 or IIT share of 18.93%; main IIT commodity groups include: parts accessories for radio- and video equipment; polymers of ethylene, in primary forms; stainless steel bars and rods; cyclic carbohydrates; monocarbon acyclic acids; ethyl alcohol; electric transformers; electric engines and generators; parts and accessories for motor vehicles; petroleum oils and oils from bituminous minerals other than crude), **Belarus** (G-L = 0.160 or IIT share of 16.01%; main IIT commodity groups include: parts and accessories for motor vehicles; corded coverings for tyres; ball/roller bearings; woven fabrics; steel bars and rods; insulated wires and cables), **Belgium** (G-L index = 0.126 or IIT share of 12.57%; main IIT commodity groups include: processed and unprocessed diamonds; joinery; colouring matters), **Poland** (G-L index = 0.101 or IIT share of 10.14%; main IIT commodity groups include: alloy steel bars and rods; polymers of ethylene, in primary forms; metal structures of aluminium; petroleum oils and oils from bituminous minerals other than crude; flat-rolled metals of steel and stainless steel; sugar).

Table 5. Ukraine's Highest Levels of Intra-Industry Trade (IIT) with Its Main Trade Partners, 2005

Position, ranked by foreign trade turnover	Country	Number of traded commodity groups, out of 1182 groups (2005)	Volume of intra-industry trade (2005), thou.USD	Grubel-Lloyd Index (2005)	Modified Michaeli Index (2005)	Grubel-Lloyd Index (2003)
				Intra-industry trade, % of total trade		
23	Rumania	551	175413.80	25.56	26.73	8.81*
1	Russia	1043	4684775.00	23.12	21.64	16.45
10	Hungary	728	251802.47	18.93	18.79	11.03
8	Belarus	788	293099.45	16.01 ↓	15.95	16.11
31	Belgium	706	64056.24	12.57	11.53	3.90
19	Slovak Rep.	596	89865.94	11.10	12.26	6.57
34	Lithuania	635	43970.33	10.75	10.70	6.01
7	Poland	922	243230.18	10.14	10.55	8.33
45	Denmark	581	25623.58	9.08	9.09	2.63
2	Germany	1042	404433.41	8.70 ↓	10.29	10.22
22	Moldova	831	63624.88	8.34	12.00	n
21	Austria	689	61811.52	8.10 ↓	7.67	22.07
9	USA	888	123827.70	7.52 ↓	7.91	8.05 *
16	Kazakhstan	555	54422.56	6.42	5.17	3.49
3	Italy	914	180640.05	6.18 ↓	7.18	7.59
13	Netherlands	813	58588.77	6.00	6.19	2.90
37	Latvia	547	21028.87	5.61	9.21	4.42
14	Czech Rep.	755	50207.13	5.17	5.20	4.16
15	UK	792	43392.36	5.09 ↓	5.08	25.12
25	Bulgaria	562	31918.10	5.00 ↓	7.43	11.79 *
12	France	826	41277.39	4.15 ↓	4.25	5.17
6	China	864	85306.23	3.38	4.23	n
5	Turkey	787	65687.46	2.53	3.73	n

Notes: * data for 2002; n – no data
Source: author's calculations based on the data on foreign trade in goods according to 4-digit classification of TN ZED (HS Rev. 3) International Trade Classification of Ukraine's State Statistics Committee.

Worth noting is the fact that recently Ukraine has exhibited a tendency to deepening IIT, especially owing to intensified cooperation with CEEC and Russia. The major objects of intra-industry trade of Ukraine are not the final goods, as it is in advanced industrial countries, but the intermediate goods of industrial purpose. A part of intra-industry trade flows can be considered horizontal and described by monopolistic competition and differentiated demand. The other part of IIT represents vertical intra-industry trade, i.e. when

international trade involves goods of different production stages within the same commodity group ("intermediate vs. final goods problem"). Vertical IIT expressed by export-import overlap can be explained by means of various forms and mechanisms of international business cooperation set up by foreign firms or MNCs. For example, we can speak of the re-export strategy, i.e. establishing the production on the basis of delivered materials, parts and accessories in the recipient country endowed with low labour costs and available facilities. More often than not the products are made to order and re-exported by companies to meet the needs of their country of origin or a third country.[2] Another form of business cooperation is when a foreign (multinational) company sets up the production of intermediate goods in the recipient country, shipping them later to its country of origin or a third country for subsequent processing or assembling. After that, the company delivers final goods within the same commodity group back to the recipient country.

On the one hand, vertical intra-industry trade in Ukraine can be explained within the scope of Traditional Trade Theory because it reflects differences in relative factor endowments (factor intensity of production) or technology between Ukraine and its trade partners. On the other hand, IIT can be the subject of New Trade Theory because of its dependence on the activity and behaviour strategies of foreign firms and MNCs on the Ukrainian market.

The New Trade Theory has limited scope for explanation of actual economic processes in Ukraine in view of the following circumstances.

1. The postulates of the New Trade Theory reveal themselves when trading partner-countries have similar, high economic development levels (similarly high GDP/GNI per capita). Only subject to this condition can there be high propensity to satisfy the differentiated demand and hence develop the differentiated industrial production. The value of this indicator for Ukraine leaves it behind the EU- and EFTA countries, as well as the USA, which are its main trade partners and its primary source of imported differentiated industrial goods.

Therefore, the economic processes and effects within the scope of New Trade Theory will become more apparent in the course of Ukraine's income

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[2] As an example we present the HS Rev.3 commodity group 8518 "Microphones and props for them; loudspeakers, integrated and not integrated; headphones and combined microphone/loudspeaker sets; electric audio amplifiers; electric loudspeaker equipment", which is a significant article of trade between Ukraine and Austria in terms of trade volume (the 5th largest export and 2nd largest import commodity group in the trade structure) and level of intra-industry trade (98.88% in 2002, 95.48% in 2003, and 80.5% in 2004). Within this commodity group, in 2004 Ukraine imported from Austria 98.9% of parts and accessories for loudspeakers (subgroup 85189) and exported to Austria more than 96.7% of loudspeakers as a product of high processing degree (subgroup 85182). Using Kandogan's methodology (Kandogan, 2003), we determined that the share of horizontal IIT in the total IIT of Ukraine with Austria within the commodity group 8518 made only 4.1%. This share can be fully explained by the New Trade Theory postulates. The rest of the total IIT (95.9%) should be considered as vertical IIT and can be investigated within the scope of either Traditional or New Trade Theory.

convergence (with consideration for PPP problem) with advanced industrial countries, in particular with the EU-countries, which seems possible in the long term if Ukraine persists in deepening its entry into the system of international division of labour, liberalizing its domestic market, foreign trade and international capital flows with simultaneous integration into the European economic area.

2. The difference between Ukraine's production and trade structure and the production and trade structures of its trade partners explains the non-homogeneity of consumer preferences. According to New Trade Theory, a country's integration with a certain regional economic block can lead to increasing convergence of trade structures and, thus, to development of intra-industry trade of a higher level between the countries that integrate. This argument calls for complex empirical research of Ukraine's economic integration with its trade partners in both the European Union and the Single Economic Area (i.e. with Russia, Belarus and Kazakhstan).

Nevertheless, it is believed that international specialization of Ukraine would develop optimally under deepening of its industrial and trade relations with advanced industrial countries, which have objectively reached the highest level of international specialization and product differentiation. In view of the optimization of their reciprocal demand, advanced industrial countries would try to pull the Ukrainian economy towards European economic area in order to realize their trade and investment interests.

We suggest cluster analysis for measuring the homogeneity of Ukraine's trade structure and the trade structures of its trade partners within the regional EU and SEA integration blocks. We use 4-digit marks for commodity groups according to HS Rev.3 Trade Classification and analyze main export and import commodity groups of Ukraine and the EU and SEA countries within their world trade in 2003.

The analysis shows that in the general sample of the EU and SEA countries stands out a representative cluster of the "industrial capital-intensive core" of the EU, with highly homogenous trade structures of Germany, Hungary, Slovak Republic, Austria, Czech Republic, United Kingdom, Sweden, and Slovenia (See *Figure 1*). Italy and France, which have similar trade structures, draw near the core cluster. Luxembourg and Kazakhstan also stand close to this cluster, owing rather to their capital- and R&D-intensive type of import structures. Luxembourg and Kazakhstan have similar export structures of resources-intensive type (metals and metal products).

We can also distinguish a separate cluster represented by Portugal, Lithuania, Latvia, and Poland followed by a less homogeneous Belarus. This cluster represents a so-called "European periphery" which reflects international trade in mostly resources- and labour-intensive goods. Within this cluster, Portugal and Poland are characterized by MNCs' well-established vertical production in motor vehicle and electric industries.

Still another cluster of European periphery is represented by trade structures of Denmark, Ukraine and Greece. The export structures of Ukraine and Denmark

are homogeneous due to a relatively high share of resources-intensive (in particular petroleum) products and foodstuffs (See *Figure 2*). It should be noted that Denmark reveals a considerably high heterogeneity of its production and trade structure in relation to production and trade structures of the countries which form the European capital-intensive core. Denmark also has leading trade positions in science-intensive products in addition to its high share of resources-intensive products.
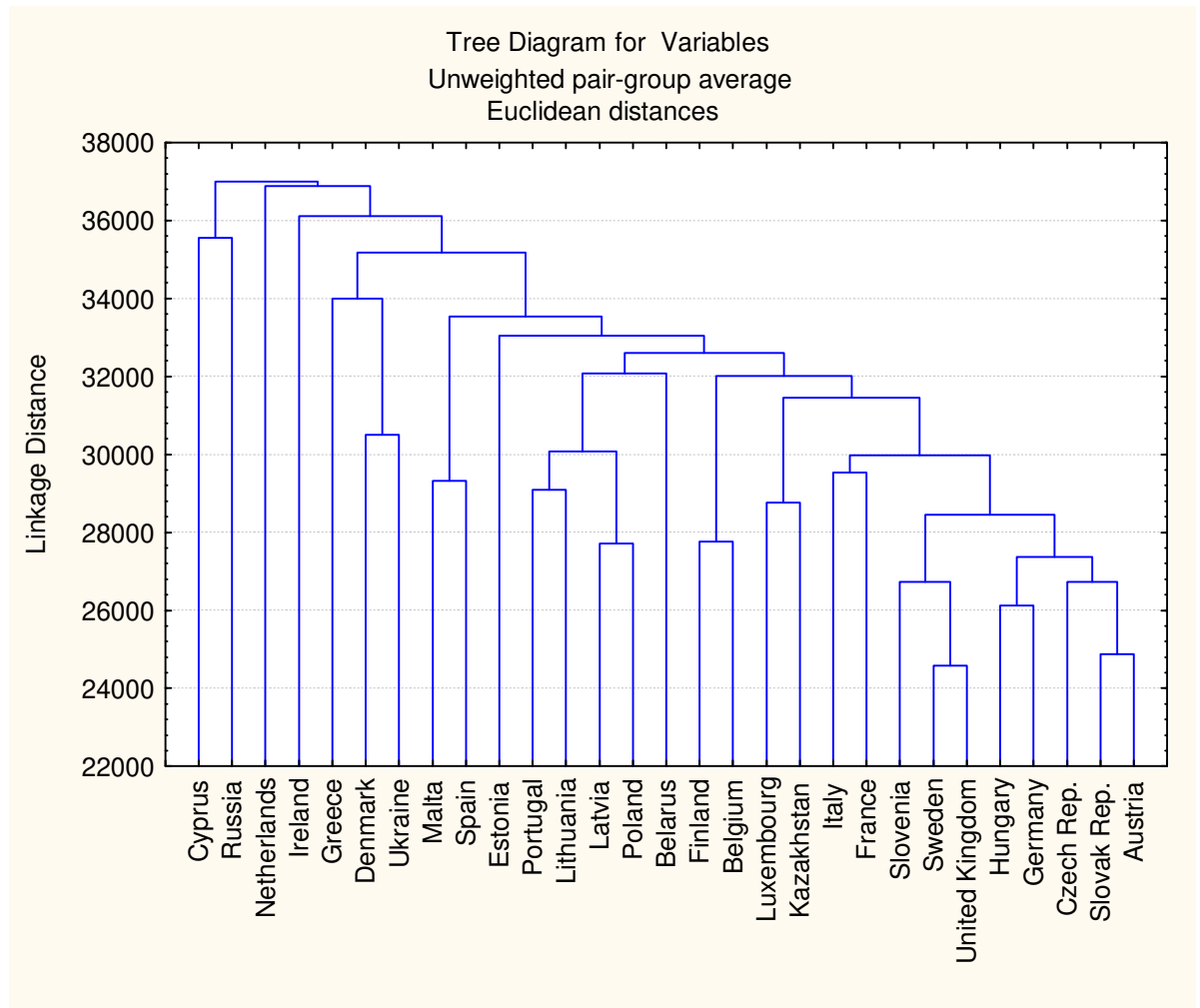
Figure 1. Country Clusters According to Homogeneity of Trade Structures.

Being in the same cluster of import structures with Greece, Lithuania and to some extent with Poland, Latvia and Belarus, Ukraine shows a tendency to effective importing, which contributes to structural changes directed at meeting the needs of the European economic area (See *Figure 3*). The participation of Ukraine and Greece in vertical labour-intensive production in the light industry with the EU-countries is also a significant factor of the homogeneity of their import structures.

Figure 2. Clusters according to Homogeneity of Export Structures.

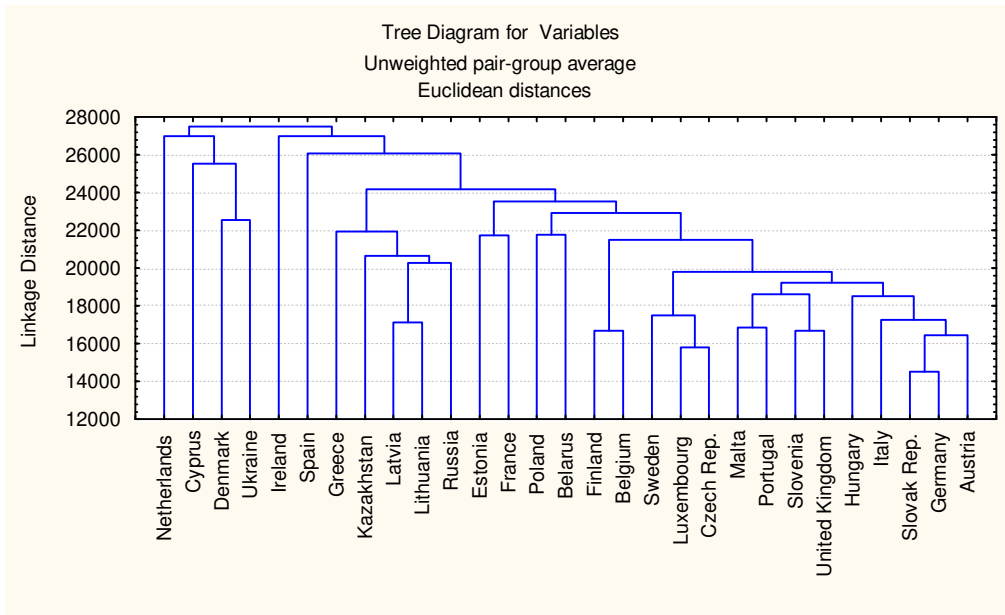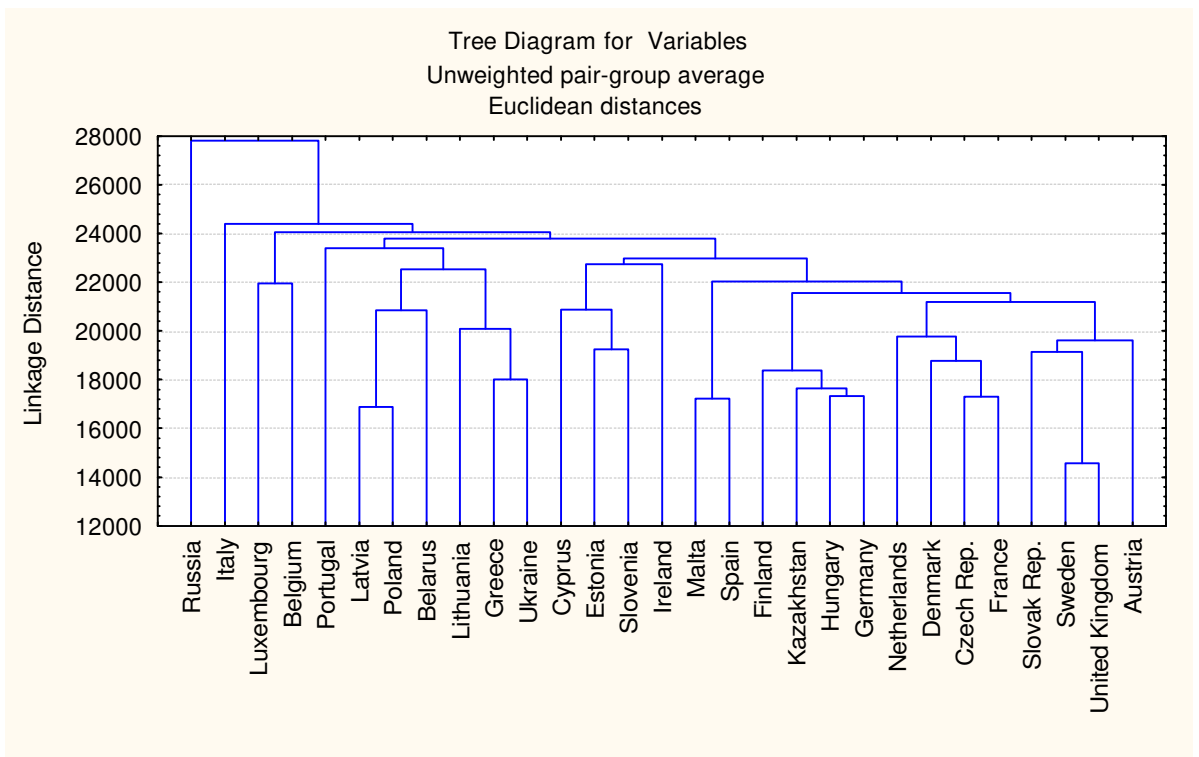Figure 3. Clusters according to Homogeneity of Import Structures.

Ukraine's main problem in revealing its trade homogeneity in relation to trade structures of its trade partners in the EU and SEA is its export commodity structure. Ukraine's export structure is heterogeneous in comparison to the

majority of the EU and SEA countries, with basic metals, fabricated metal products, agricultural goods, and foodstuffs traditionally prevailing in it. Moreover, Ukraine's export specialization, which reflects its industrial specialization, is highly diversified. In view of this, in the future, if Ukraine integrates with one or another regional economic block, the achievement of real convergence will be a painful process involving decision-making problems with regard to its further participation in the monetary union.

We should also mention the countries that have heterogeneous trade structures compared to majority of the sampled countries. This primarily concerns the export structures of the Netherlands (prevalence of agricultural products, foodstuffs and science-intensive goods), Ireland (prevalence of computer technologies, agricultural products and foodstuffs) and Cyprus (agricultural products and labour-intensive goods). Russia exhibits high level of heterogeneity because of its substantial exports of resources and absolutely different structure of imports that does not fit into the system of consumer preferences of the Euro-integration area (See *Figure 3*). Russia's import structure consists of a large number of agricultural and mass consumption goods, which testifies to the fact that the domestic producer in Russia does not fully satisfy even the basic consumer demand. Russia's imports of differentiated goods of industrial purpose are represented even worse than in Kazakhstan, Belarus and Ukraine.

Table 6 shows that under conditions of actual trade specialization and adherence to market principles, Ukraine's reciprocal demand-based foreign trade with the EU countries can be more beneficial than trade within the Single Economic Area.

Taking into account the relative heterogeneity of Ukraine's export structure in relation to Russia's and Kazakhstan's import structures (which is shown by relatively large Euclidean distances), one can assert that Ukraine's export potential on the markets of Russia and Kazakhstan is not as high as it is considered to be. The same is true for export potentials of Belarus and Kazakhstan, as well as Russia (in differentiated industrial goods), on the Ukrainian market. This argument casts doubt on the possibility of a more intensive development of Ukraine's *intra-industry trade in differentiated goods* with the SEA countries in the course of deepening Eurasian economic integration than this would be the case in the course of European economic integration.

If the similarities in the levels of economic development of Ukraine, Russia, Belarus and Kazakhstan -- which clearly outweigh similarities in economic development of Ukraine and EU countries -- were taken as a basis for establishment of a customs union within the Single Economic Area, the equalization of relative factor endowments and relative factor prices between Ukraine and the SEA-countries would occur at a much faster pace than it would be the case under the system of European common customs tariff. Price equalization is a good foundation for development of economic processes

within the scope of the New Trade Theory. However, inasmuch as <u>consumer preferences in Ukraine differ from those of its two SEA-partners</u> (Russia and Kazakhstan), their disposition to intensify intra-regional trade relations with Ukraine in the future would be reduced. The SEA countries would rather prefer to expand their integrated export potential (for example, by forming big oligopolistic financial and industrial groups in the mining, metallurgy, heavy engineering, aircraft and space industries on the basis of intra-regional mergers and acquisitions, thus enjoying external economies of scale) and satisfy their individual importing wishes on the markets of third countries in compliance with the postulates of the Traditional Trade Theory.

Table 6. Countries Ranked by Homogeneity of Ukraine's Potential Reciprocal Demand, 2003.

Rank	Ukraine's import structure to export structure of its trade partner	Euclidean distance	Rank	Ukraine's export structure to import structure of its trade partner	Euclidean distance
1	Germany	20058.47	1	Italy	21717.73
2	Italy	20656.99	2	Cyprus	22263.93
3	Finland	20862.81	3	Belarus	23122.89
4	Slovak Republic	21881.52	4	Belgium	23202.44
5	Slovenia	22689.53	5	Slovenia	23372.61
6	Malta	22792.59	6	Greece	23676.15
7	Estonia	22890.87	7	Portugal	24114.47
8	Austria	23268.88	8	France	24869.11
9	Sweden	23392.34	9	Lithuania	25060.00
10	Latvia	23687.73	10	Latvia	25214.63
11	Russia	23862.29	11	Poland	25277.37
12	Czech Republic	24181.48	12	Spain	25294.67
13	Poland	24377.02	13	Austria	25439.25
14	Luxembourg	24379.41	14	Slovak Republic	25877.06
15	Hungary	24742.98	15	United Kingdom	26102.73
16	Greece	24854.42	16	Luxembourg	26299.84
17	Spain	25063.82	17	Malta	26372.02
18	Portugal	25079.77	18	Czech Republic	26727.50
19	France	25510.37	19	Denmark	27122.57
20	Ireland	25612.00	20	Estonia	27128.80
21	Belgium	25729.13	21	Kazakhstan	27511.07
22	United Kingdom	25763.71	22	Netherlands	27563.61
23	Kazakhstan	25835.02	23	Sweden	27575.12
24	Denmark	25840.15	24	Germany	27949.59
25	Belarus	25853.91	25	Finland	28016.37
26	Cyprus	26964.20	26	Ireland	28460.40

| 27 | Lithuania | 27388.91 | 27 | Hungary | 29840.57 |
| 28 | Netherlands | 29752.49 | 28 | Russia | 29858.18 |

Source: author's calculations based on international trade data of Ukrainian State Statistics Committee and UN Comtrade.

Hence, for the SEA, the New Trade Theory would be able to explain the effect of external increasing returns to scale and the horizontal export strategy of new-established intra-regional transnational companies towards third countries. These TNCs would join the system of intense competition on the world market. However, such an integration block would form no preconditions for Ukraine to intensively develop its intraregional intra-industry trade since the convergence of reciprocal demand structures in the SEA could linger out because of the growing volumes of inter-industry trade with the third countries.

The postulates of the New Trade Theory could be applied to the cooperation of Ukraine and the EU in the medium-term perspective to explain the Ukrainian economy's take-over by western MNCs, saturation of a relatively large Ukrainian consumer market with differentiated goods under conditions of monopolistic and oligopolistic competition, internationalization of technology transfer, and development of vertical intra-industry trade.

3. The question of whether the models of New Trade Theory based on assumptions of monopolistic and oligopolistic competition can describe economic processes and effects, as well as the choice of business and governmental strategic behaviour, for developing and transition countries is debatable (Lucas 1988; Bardhan 1995; Ruttan 1998). At the time when oligopolistic or monopolistic MNCs as global market players use various types of strategic behaviour in the developed industrial countries, in the developing countries – characterized by low income levels and, therefore, insufficient differentiated demand, and sometimes high protectionism – the strategic behaviour of companies is quite limited.

As the experience of European transition countries shows, the opening-up of their economic systems for international competition and FDIs, deepening economic liberalization and integration, and on this basis, the realization of real convergence within the integration block lead to the increased role of New Trade Theory in explaining their international economic relations. The larger the part of a transition country's economy is taken over by western MNCs, the more its markets are defined by monopolistic competition. It should be noted that for open developing and transition countries, the questions of strategic business behaviour are considered in the context of sales, industrial and investment expansion of foreign MNCs, rather than in view of the companies' objective need to amalgamate their industrial and economic activity in order to realize internal economies of scale or economies of scope. The strategic behaviour directed at using economies of scale or economies of scope to rationalize the company's production and ensure its survival or higher profits on the markets with already satisfied differentiated demand is typical of advanced industrial countries.

The range of strategies used by MNCs on the Ukrainian market, especially in their interaction with the Ukrainian government, is very limited due to the 2005 practice of imposing informal limitations on access of foreign MNCs to the so-called national "strategic enterprises" and "priority industries". When in many transition CEE-countries western MNCs took over inefficient but potentially promising enterprise assets, the newly-formed Ukrainian business elite used state authorities to preserve control over national economy.

This notwithstanding, in the 1990s, the first big Ukrainian-Korean joint venture *AutoZaZ-Daewoo* was set up in the motor vehicle industry with foreign capital vested by the Korean TNC *Daewoo*. In 2001 started the expansion of Russian capital on the Ukrainian market, mainly in the form of cross-border acquisitions of enterprise assets, in particular aluminous and aluminium enterprises. However, the value of these acquisitions was not high. After the Orange Revolution in Ukraine, the German MNC *Metal Stil* with assistance of Ukrainian democratic political elite took over (privatized) big metallurgical state enterprise *Kryvorizhstal* in 2005. Later, an Austrian financial MNC *Raiffeisen Bank* purchased the assets of the Ukrainian *Aval bank*.

In comparing cross-border M&As, we can see that Ukraine practically has not been taking part in these processes since its independence (see *Table 7*). In this regard, the New Trade Theory postulates about strategic behaviour, monopolistic competition, differentiated goods, New Economic Geography, and international technology transfer will develop in Ukraine only when it first fulfils the Traditional Trade Theory thesis – the non-discriminative access of foreign companies (multinational corporations) to domestic market of the recipient country, i.e. guaranteeing the principle of functional market competition and favourable conditions for acquisition of assets of domestic enterprises.

Table 7. Consolidation of Capital through Cross-Border Mergers & Acquisitions

Region/Country	Cross-Border Sales of Corporate Assets as a Result of M&As, millions USD		Region/Country	Cross-Border Purchases of Corporate Assets as a Result of M&As, millions USD	
	1988-1996	1997-2004		1988-1996	1997-2004
Europe and CIS					
United Kingdom	185 586	654 370	United Kingdom	221 358	1 035 245
Germany	46 922	473 720	France	104 684	426 250
France	72 207	175 661	Germany	71 936	364 522
Netherlands	34 196	172 243	Netherlands	51 337	207 834
Sweden	32 637	115 833	Switzerland	56 786	154 632
Italy	33 329	84 880	Spain	18 542	143 523
Spain	24 491	67 732	Sweden	35 547	84 980

Belgium	20 780	62 985	Italy	23 385	78 335
Switzerland	19 328	57 446	Belgium	13 085	68 869
Norway	7 591	35 582	Finland	5 313	47 797
Finland	4 898	31 040	Denmark	3 256	26 588
Denmark	3 128	29 857	Ireland	8 535	26 141
Ireland	4 904	27 451	Norway	9 114	22 856
Poland	4 004	24 321	Luxembourg	5 139	20 142
Luxembourg	2 038	21 760	Austria	880	15 142
Austria	3 247	19 879	Portugal	1 297	14 586
Russia	659	18 999	Russia	511	11 269
Czech Republic	4 764	14 845	Greece	288	9 532
Portugal	3 210	8 210	Hungary	64	3 406
Slovak Republic	246	7 118	Cyprus	41	2 042
Hungary	5 130	6 774	Poland	64	1 887
Rumania	504	5 541	Czech Republic	304	1 521
Bulgaria	213	5 490	Bulgaria	3	903
Greece	1 230	4 873	Slovak Republic	45	776
Croatia	253	3 602	Kazakhstan	450	181
Kazakhstan	3 666	3 356	Slovenia	0	165
Slovenia	89	2 199	**Ukraine**	**0**	**157**
Azerbaijan	1	1475	Croatia	0	80
Ukraine	**96**	**713**	Rumania	0	30
Cyprus	0	62	Azerbaijan	0	0
Belarus	0	7	Belarus	0	0
North America					
USA	417 501	1 277 261	USA	290 322	864 754
Canada	60 174	208 998	Canada	63 255	214 733
Mexico	9 670	47 464	Mexico	5 970	22 556
Asia					
Australia	53 292	115 599	Australia	39 752	107 232
Japan	5 300	79 772	Japan	63 123	72 427
Korea	1 500	39 737	Singapore	7 007	53 103
Hong Kong	18 614	39 503	Hong Kong	17 816	33 897
New Zealand	16 084	24 471	New Zealand	8 531	13 066
China	3 939	22 281	Malaysia	12 811	10 897
Singapore	4 580	13 635	India	474	7 008
Indonesia	2 346	12 617	China	2347	6 917
Philippines	3 322	11 521	Korea	4152	6 719
Thailand	1 173	10 917	Taiwan	2136	3 805
India	1 003	9 588	Indonesia	791	3 093
Taiwan	185	6 899	Thailand	721	1 404
Malaysia	2 808	5 710	Philippines	424	822

Pakistan	1 152	3 078	Turkey	388	336
Turkey	997	2 325	Pakistan	0	87
Latin and Central America					
Brasilia	10 126	98 620	Bermudas	1773	74824
Argentina	16 425	49 101	Brasilia	2255	24476
Bermudas	3 194	25 674	Argentina	2629	7832
Chile	5 515	23 740	Chile	6185	4928
Venezuela	3 792	9 563	Britain Virgins Islands	370	3176
Columbia	4 907	8 645	Bahamas	596	2960
Peru	5 122	4 014	Panama	17	2815
Panama	117	2 419	Venezuela	906	2719
El Salvador	40	1 899	Cayman Islands	761	2090
Puerto Rico	142	1 789	Columbia	384	1477
Ecuador	233	1 670	Netherlands Antilles	462	1273
Bolivia	1 135	1 422	Barbados	0	737
Cuba	299	823	Puerto Rico	0	635
Middle East					
Israel	1732	13948	Israel	1 243	10 696
Jordan	26	1 577	Saudi Arabia	2 933	4 714
Kuwait	6	480	Bahrain	2 816	3 511
United Arab Emirates	0	385	Kuwait	847	1 656
Lebanon	0	331	United Arab Emirates	583	852
Africa					
South Africa	3 660	26 016	South Africa	8 475	24 817
Egypt	530	4 865	Libyan	314	528
Morocco	187	4 513	Zimbabwe	20	327
Ghana	53	1 709	Egypt	18	284
Equatorial Guinea	0	993	Uganda	0	250
Tunisia	0	953	Ghana	541	141

Source: author's calculations based on data of World Investment Report 2004, 2005.

The activity of transnational companies on the Ukrainian market can be described with the FDI indicator. Our calculations show that in 2003-2004 the significance of FDIs for domestic commodity production has been increasing at a higher rate in the following industries (ISIC Rev.3): 05 – Fishing, operation of fish hatcheries and fish farms; 24 – Manufacture of chemicals and chemical products; O – Other community, social and personal service activities; G – Wholesale and retail trade; repair of motor vehicles, motorcycles and personal

and household goods; H – Hotels and restaurants; K – Real estate, renting and business activities; N - Health and social work; 19 – Tanning and dressing of leather; manufacture of luggage, handbags, saddlers, harness and footwear; 15 +16 – Manufacture of food products and beverages; manufacture of tobacco products; 20 – Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials.

At the same time, the impact of FDIs on domestic commodity production has been decreasing in such industries as 40 – Electricity, gas, steam and hot water supply; 27+28 – Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment[3]; 10+11+12 – Mining of coal and lignite; extraction of peat; extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction excluding surveying; mining of uranium and thorium ores; 30+31+32+33 - Manufacture of office, accounting and computing machinery; manufacture of electrical machinery and apparatus n.e.c; manufacture of radio, television and communication equipment and apparatus; manufacture of medical, precision and optical instruments, watches and clocks; 02 - Forestry, logging and related service activities, M – Education.

Proceeding from our correlation and regression analysis, we can conclude that in Ukraine, the impact of FDIs on commodity production volumes by industry equalled to 43.5% (number of observations – 31, $R^2 = 0.435$, F-Test 22.31>7.6 tabular, ρ-value 0.000) for 2003 and 64% (number of observations – 31, $R^2 = 0.640$, F-Test 51.51>7.6 tabular, ρ-value 0.000) for 2004. The correlation coefficient for the relationship between commodity production by industry and FDIs made 0.621 for 2003 and 0.800 for 2004 (correlation is direct and significant at 0.01). The calculated elasticity of commodity production by FDI showed that a 1%-change in FDI resulted in 0.27% - change in commodity production in 2003 and 0.56% -change in 2004.

From the gravity equation describing Ukraine's foreign trade in goods and services by industry (number of observations – 50 at higher disaggregation of industry data according to ISIC Rev.3), we received the following results for the trade flows–FDIs relationship in 2003-2005 (See *Table 8*).

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[3] The money from privatization of the metallurgical state enterprise *Kryvorizhstal* in 2005, accounted for in the Ukrainian statistics as FDI, remains as state budget non-distributed funds and does not change cardinally the described actual trend for metallurgy and manufacture of metal products.

Table 8. Relationship between Ukraine's FDIs and Foreign Trade in Goods and Services by Industry (Economic Sector), 2003-2005.

Year	Dependence of foreign trade turnover on FDIs, % $R^2 \times 100$	F-test (tabular data 7.18 at 0.01 probability)	ρ- value (less than 0.05 is considered significant)	Correlation coefficient ** at 0.01 significance level	Elasticity of foreign trade turnover by FDI, % (change in foreign trade turnover/ 1%-change in FDI)
2003	42.2	35.003	0.000	0.649**	0.79
2004	20.4	12.29	0.001	0.452**	0.45
2005*	17.3	10.057	0.003	0.416**	0.41

Year	Dependence of exports on FDIs, % $R^2 \times 100$	F-test (tabular data 7.18 at 0.01 probability)	ρ- value (less than 0.05 is considered significant)	Correlation coefficient ** at 0.01 significance level	Elasticity of export by FDI, % (change in exports/ 1%-change in FDI)
2003	29.0	19.596	0.000	0.538**	0.73
2004	20.4	12.306	0.001	0.452**	0.48
2005*	32.0	22.577	0.000	0.566**	0.57

Year	Dependence of imports on FDIs, % $R^2 \times 100$	F-test (tabular data 7.18 at 0.01 probability)	ρ- value (less than 0.05 is considered significant)	Correlation coefficient ** at 0.01 significance level	Elasticity of import by FDI, % (change in imports / 1%-change in FDI)
2003	52.0	50.966	0.000	0.718**	0.88
2004	20.4	12.265	0.001	0.451**	0.45
2005*	13.1	7.22	0.01	0.362**	0.37

Note: *receipts from privatization of metallurgical state enterprise *Kryvorizhstal* not included.
Source: author's calculations based on official data of Ukrainian State Statistics Committee.

Taking into consideration these results, we can assert that FDIs turned Ukraine into an increasingly export-oriented economy. The growth of FDIs in 2005 preconditioned the expansion of Ukrainian exports represented mainly by products of traditional industries (economic sectors). The high growth of

export volumes in 2005 compared to 2004 was observed in the following industries: 27 – Manufacture of basic metals –$1644105.09 thou., I – Transport, storage and communications (mainly pipeline transport) – $3650252.9 thou., 13 – Mining of metal ores – $552107.7 thou., 01 – Agriculture, hunting and related service activities – $236155.81 thou., 24 – Manufacture of chemicals and chemical products – $223975.9 thou., 02 – Forestry, logging and related service activities – $178049.46 thou..

At the same time, the influence of FDIs on Ukrainian imports tends to decrease significantly, which leads to decreasing FDI's influence on the Ukrainian foreign trade as a whole. This means that there still is no effect of increasing complementarity between imports of goods and services and FDIs, which – under condition of transition – is responsible for structural market changes and saturation of domestic market with differentiated products. Thus, there are no impulses for the economic system of Ukraine to move onto the dimension where economic processes can be explained through the prism of New Trade Theory.

We also calculated the changes in FDIs and foreign trade in the Ukrainian industries for 2004 and 2005. It should be noted that, compared to 2004, the FDIs in Ukraine grew faster in 2005 than did its foreign trade in the following industries (economic sectors): M – Education – 8.08-fold increase; 30 – Manufacture of office, accounting and computing machinery – 7.57-fold increase; 27 – Manufacture of basic metals –2.69-fold increase; 13 – Mining of metal ores – 1.64-fold increase; 18 - Manufacture of wearing apparel; dressing and dyeing of fur – 1.32-fold increase; 36 - Manufacture of furniture; manufacturing n.e.c.– 1.1-fold increase; 24 – Manufacture of chemicals and chemical products – 1.09-fold increase; 28 - Manufacture of fabricated metal products, except machinery and equipment – 1.07-fold increase.

We can hope that the intensification of economic liberalization in Ukraine and implementation of real reforms in the course of its European economic integration will increase in the future the role of FDIs in explaining the Ukrainian industrial structure and foreign trade flows. The preconditions for revealing the postulates of the New Trade Theory would be formed especially in the industries with differentiated production characterized simultaneously by high foreign direct investments and international trade openness (See selected cells in *Table 9*). As for Ukraine, this is currently true for the following industries: 17+18 - Manufacture of textiles; manufacture of wearing apparel; dressing and dyeing of fur, G - Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods; 20 - Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials; 25 - Manufacture of rubber and plastics products; 36+ 37 - Manufacture of furniture; manufacturing n.e.c.; recycling; 24 - Manufacture of chemicals and chemical products; 19 - Tanning and dressing of leather; manufacture of luggage, handbags, saddlers, harness and footwear.

Table 9. Investment and Trade Openness of Ukrainian Industries (Economic Sectors), 2003-2004.

Industry (Economic Sector) ISIC Rev.3	FDI Openness (FDI/Output), %			Trade Openness (Foreign Trade Turnover in Goods and Services/Output),%		
Year	2003	2004	Rank	2003	2004	Rank
All economy	8.30	7.75		64.54	64.02	
01 Agriculture, hunting and related service activities	4.69	4.66	22	8.04	0.06	30
02 – Forestry, logging and related service activities	3.26	2.77	26	58.65	0.02	31
05 - Fishing, operation of fish hatcheries and fish farms; service activities incidental to fishing	0.87	4.59	24	40.30	13.02	28
10 - Mining of coal and lignite; extraction of peat; 11 - Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction excluding surveying; 12 - Mining of uranium and thorium ores.	2.32	1.89	28	17.49	20.98	22
13 - Mining of metal ores; 14 - Other mining and quarrying.	9.67	5.13	20	51.12	55.19	15
15 - Manufacture of food products and beverages; 16 - Manufacture of tobacco products.	11.12	11.23	10	34.00	32.64	17
17 - Manufacture of textiles; 18 - Manufacture of wearing apparel; dressing and dyeing of fur	17.55	16.76	5	250.71	237.64	2
19 - Tanning and dressing of leather; manufacture of luggage, handbags, saddlers, harness and footwear	8.39	8.67	15	123.45	119.65	4
20 - Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	24.44	24.21	4	66.83	65.64	11
21 - Manufacture of paper and paper products	10.71	7.85	16	94.43	74.12	10

22 – Publishing, printing and reproduction of recorded media	9.21	9.09	13	26.69	20.51	23
23 - Manufacture of coke, refined petroleum products and nuclear fuel	4.79	3.91	25	46.32	60.06	14
24 - Manufacture of chemicals and chemical products	7.45	9.93	12	82.61	92.64	6
25 - Manufacture of rubber and plastics products	16.57	12.26	8	70.14	76.76	8
26 - Manufacture of other non-metallic mineral products	10.04	9.04	14	30.90	28.24	18
27 - Manufacture of basic metals; 28 - Manufacture of fabricated metal products, except machinery and equipment.	3.25	2.35	27	73.48	64.36	13
29 - Manufacture of machinery and equipment n.e.c.	7.49	5.85	18	58.24	65.51	12
30 - Manufacture of office, accounting and computing machinery; 31 - Manufacture of electrical machinery and apparatus n.e.c; 32 - Manufacture of radio, television and communication equipment and apparatus; 33 - Manufacture of medical, precision and optical instruments, watches and clocks.	8.99	5.84	19	59.48	45.09	16
34 - Manufacture of motor vehicles, trailers and semi-trailers; 35 - Manufacture of other transport equipment	11.58	7.81	17	84.28	79.05	7
36 - Manufacture of furniture; manufacturing n.e.c.; 37 – Recycling	13.05	11.32	9	59.69	76.30	9
40 – Electricity, gas, steam and hot water supply	1.55	0.64	30	17.71	18.15	24
F – Construction (45)	4.90	4.65	23	7.87	10.73	29
G – Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods (50,51,52)	13.67	16.16	6	126.70	140.90	3

H – Hotels and restaurants (55)	29.19	35.85	2	18.41	22.69	21
I – Transport, storage and communications (60, 61, 62, 63, 64)	5.12	5.09	21	49.30	22.89	20
J - Financial intermediation (65,66)	65.02	25.51	3	24.24	14.21	27
K - Real estate, renting and business activities (70, 71, 72, 73, 74)	10.21	11.16	11	138.43	106.22	5
L – Public administration and defence; obligatory social security (75)	0.00	0.05	31	1176.3	1184.5	1
M – Education (80)	1.62	1.49	29	15.77	15.96	26
N - Health and social work (85)	40.70	44.72	1	24.49	23.66	19
O – Other community, social and personal service activities (90, 91, 92, 93)	12.65	15.62	7	12.03	17.37	25

Source: author's calculations based on official data of Ukrainian State Statistic Committee.

4. Conclusions

The multidimensional and systemic principles of the New Trade Theory can be revealed in the course of deepening globalization and integration processes in the modern world economy. Opening-up of countries' economies for international competition and their simultaneous aspiration to converge with their main trade partners become the drivers of economic development and growth of well-being under the new conditions. It is easier for a group of countries that have historically built the foundation for their close collaboration with one another comparing to third countries and currently have mutual economic and geopolitical values to realize these steps. Today, Ukraine is at the cross-roads between the two geopolitically different, but at the same time important for its development, regional economic blocks -- the European and the Eurasian economic areas. This fact essentially complicates the realization of rapid transformation of Ukraine's traditional international trade and economic development paradigm into a qualitatively new one, based on the New Trade Theory principles. The incompatibility of goals of the European and the Eurasian economic blocks becomes especially apparent now, when Russia headed for militarization of its economy and Belarus just refused again to form an open society and realize western values. These circumstances will impede American and western European transnational (multinational) corporations, as main carriers of capital and differentiated products to the recipient countries in transition, in their attempt to create the "societies of obedient consumers" in these countries.

In this situation, Ukraine can choose between the two alternative regional economic blocks for its full integration -- either the European Union or the Single Economic Area. At that, Ukraine has to take into consideration not the ill-founded political arguments, not the Ukraine's unnatural tendency to economic growth based on the inefficient economic model and undeniably short-lived in nature, but the model of economic development that would objectively be capable of ensuring higher welfare of the nations in the modern world economy. In view of all the aforementioned theoretical postulates and empirical findings, we can conclude that Ukraine, as a country in transition, should commit itself to formation of the model of economic development based on the New Trade Theory postulates. This model will better exert itself if Ukraine intensifies its integration processes within the European economic area. At the same time, we should keep in mind that, while elaborating such a far-reaching economic development model, Ukraine must use its potential immediately and most efficiently within the scope of Traditional Trade Theory, realizing the principle of comparative advantage in its production and trade relations with the EU countries.

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