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Domestic Market Infrastructure Development in Ukraine: Influence on Cross-Border Trade

The content of domestic market infrastructure is outlined and its role and place in the development of national economy is presented. The sense of domestic market infrastructure forming and its influence on cross-border trade is defined. The influence of trade processes of domestic market on the markets of neighbouring countries is analyzed.

Key words: domestic market, infrastructure, bordering trade, cross-border market, cross-border trade.

Domestic market is the generalized indicator of national economy development and international cooperation. Its volumes, efficiency, openness, competitiveness intensity and orientation at consumer influence the productivity of other economy sectors and adjustment between demand and supply. Volumes, structure and efficiency of domestic market are the determinative factors of the Ukrainian economy competitiveness and sustainable development. According to estimation of The World Economic Forum Ukraine was placed 27th (out of 131) in 2007–2008, 29th (out of 134) in 2008–2009,

29th (out of 133) in 2009–2010 and 28th (out of 139) in 2010–2011 by the Domestic Market Size Index in the Global Competitiveness Report [3eim..., 2008, 2009, 2010, 2011].

Efficient functioning of domestic market and development of cross-border cooperation are nowadays the issues of utmost importance for Ukraine. In Ukrainian economy the issue of adjustment between demand and supply at domestic market is mostly derived from the disproportions of the domestic market forming system, especially the market infrastructure.

Such negative indicators of domestic market functioning as low competitiveness intensity, high prices compared to European ones, insufficient activity of demand and supply adjustment mechanism, decreasing of national producers presence almost on every market of products and reduction of the share of high value added products in the structure of commodities production lead to the delay in economic growth pace in the long-term perspective and affect cross-border trade. Therefore, forming and development of market infrastructure that secures the process of products movement from producer to consumer and defines the terms of cross-border trade are the most important preconditions for efficient domestic market functioning.

The issues of domestic market infrastructure development are analyzed in scientific tractates of famous Ukrainian scientists Olena Azaryan, Petro Byelenkyi, Vasyl Lahutin, Olha Prokopenko, Viktor Tochylin, Oleksandr Shubin, etc. They present the basic provisions of

domestic market infrastructure functioning. However its influence on the development of cross-border trade is underresearched in Ukraine.

The article aims to examine the development of domestic market infrastructure and its influence on cross-border trade.

Infrastructure is the necessary component of any integral economic system [Лагутін, 2008, s. 165]. Domestic market infrastructure is the aggregate of elements, measures and institutions that manage and organizationally and financially maintain the steady and multifunctional activity of market processes (interrelation of market economy entities, movement of products and cash flows as well as economic and financial activity of market structures).

In order to efficiently develop cross-border trade the relevant infrastructural maintenance of domestic market must be formed, i.e. the infrastructure (aggregate of elements, measures and institutions that organizationally maintain the steady activity of cross-border exchange) that has particular features due to the existence of borders and the necessity of its crossing by the flows of different types. The development of cross-border trade is ensured through some institutions that are the components of the infrastructure of domestic and cross-border markets. In Europe cross-border markets actively function and develop due to their efficiently organized infrastructural maintenance. Therefore, the EU experience nowadays sets the example for Ukraine.

Infrastructure of domestic market in its broad sense encompasses the financial, fiscal, credit, customs components as well as trade operations insurance and informational and communication systems. Infrastructure of domestic market in its narrow sense includes all the market objects that ensure economic process, e.g. constructions, premises, communications, etc.

The market of goods is the basis of domestic market. Therefore, infrastructure development is an important element in the process of market forming and development. The goods and services are the objects of the goods market. The producers, consumers, distributors and purchasers are the market entities.

Financial and labour sectors are the most influential components of domestic market infrastructure.

Infrastructure of financial sector provides control for the cash flows as the donors for forming and development of domestic market infrastructure. It includes state and commercial banks, leasing companies and nonbank credit organizations [*Fecup*, 2003, s. 260]. Infrastructure of financial sector ensures the development of capital market that encompasses stock exchanges, financial intermediaries and off-exchange trade and informational systems.

Labour market infrastructure secures the processes of development and realization of trade policy at domestic market as far as high qualified specialists can successfully solve the arising problems. Incoherent recruiting policy leads to collapse in the system of domestic market labour infrastructure [Προκοπεμκο, 2007, s. 27]. Labour market infrastructure contains state and private employment services and trade unions at enterprises. They secure training and retraining of appropriate specialists.

As far as 76% of Ukrainian regions border the neighbouring countries it is important to examine the influence of domestic market infrastructure on the development of cross-border trade [*Mikyna*, 2007, s. 100]. Bordering regions of Ukraine border the actively developing countries. Bordering location stipulates active establishment of cross-border trade relations that significantly influence the level of life of the population of both bordering and inner regions of the country.

Bordering trade is the form of mutually advantageous cooperation that stipulates the growth of goods turnover, expansion of international division of labour and cooperation of production [*Μίκγπα*, 2007, s. 102]. Development of bordering trade creates competitive surrounding on domestic and cross-border markets and gives the possibility to survive in crisis situation as well as promotes increase of living standards in stable environment.

Cross-border market is the combined domestic markets of goods, services, capital and labour that are non-formally used by the population of neighbouring territories to meet their needs within the limits of current national and international legislature. Cross-border cooperation among other things promotes expansion of national legislative limits for obtaining the benefits form cross-border markets and formalizes relations in cross-border region by attracting both individuals and other economic entities and institutions [*Mikyna*, 2005, s. 105-106].

Development of domestic market infrastructure directly influences the bordering trade as the type of international turnover

conducted by trade organizations of bordering regions on domestic market and foreign partners of adjacent countries. Thus, cross-border markets play important role in the supply of goods both to the domestic and foreign markets.

The scale of cooperation of domestic market with the neighbouring countries can be only examined by quantitative estimation of bordering trade volumes through comparing of export and import data of Ukraine with bordering countries because there are no methods of bordering trade research as well as no official statistics in Ukraine.

The activity of domestic and foreign markets functioning within the bordering territory depends on the level of goods flow intensity at this territory during the certain period of time. It can be estimated by foreign trade turnover and intensity of trade.

Foreign trade turnover is the aggregate export and import of a certain region (macroregion in this case) with the neighbouring country [Попадинець, 2011, s. 209]:

$$FTT = E + I \tag{1},$$

where: FTT – foreign trade turnover;

E+I – export and import of a certain macroregion with the neighbouring country.

Intensity of foreign trade turnover is estimated by the following formula [Попадинець, 2011, s. 209]:

$$R_i = \frac{FTT_i}{\sum_{i=1}^n FTT_i} \times 100\%$$
 (2),

where: R – intensity of foreign trade turnover with the country i; FTT_i – foreign trade turnover with the country i;

n – number of countries with which the foreign trade turnover is conducted.

In order to thoroughly estimate cooperation of domestic and foreign markets the analysis of bordering trade of Ukrainian macroregions with neighbouring countries is to be conducted (Table. 1).

The market of Central macroregion with all the neighbouring countries except Hungary and Slovak Republic is the most active market by the intensity of goods turnover. However, not all of these markets are cross-border markets.

Table 1. *
Foreign trade turnover and trade intensity of Ukrainian
macroregions with neighbouring countries

	Belarus		Moldova		Poland		Russia		
	2009	2010	2009	2010	2009	2010	2009	2010	
Macroregions									
	Foreign trade turnover \$ mln								
Central	2032,4	1468,4	306,3	224,6	2124,7	1174,8	8816,9	8589,5	
Eastern	600,0	270,5	106,0	86,3	767,0	269,5	10648,5	4897,4	
Western	552,7	394,2	119,5	78,2	1603,2	1130,9	899,1	508,6	
Prydniprovskyi	833,0	367,7	324,4	99,4	1568,8	488,7	7667,5	3463,8	
Prychoenomorskyi	482,5	372,1	251,1	136,7	110,4	67,9	2995,1	2057,3	
North-Eastern	560,5	232,4	111,4	106,9	199,8	102,6	3771,7	1910,5	
Total	5061,1	3105,3	1218,6	732,0	6373,8	3234,5	34798,8	21427,0	
	Trade intensity %								
Central	40,16	47,29	25,13	30,68	33,33	36,32	25,34	40,09	
Eastern	11,86	8,71	8,70	11,78	12,03	8,33	30,60	22,86	
Western	10,92	12,70	9,80	10,68	25,15	34,96	2,58	2,37	
Prydniprovskyi	16,46	11,84	26,62	13,58	24,61	15,11	22,03	16,17	
Prychoenomorskyi	9,53	11,98	20,60	18,68	1,73	2,10	8,61	9,60	
North-Eastern	11,08	7,49	9,14	14,60	3,14	3,17	10,84	8,92	
Total	100%	100%	100%	100%	100%	100%	100%	100%	

	Romania		Slovak Republic		Hungary	
	2009	2010	2009	2010	2009	2010
Macroregions						
		Fore	\$ mln			
Central	561,6	275,3	234,3	127,0	606,5	438,4
Eastern	245,3	115,3	256,3	90,5	306,5	81,1
Western	219,0	109,1	535,1	198,0	1264,1	656,1
Prydniprovskyi	449,8	145,6	329,4	131,4	178,2	91,0
Prychoenomorskyi	299,6	127,1	26,7	11,9	39,8	22,5
North-Eastern	53,4	26,9	128,7	81,6	48,6	26,1
Total	1828,7	799,4	1510,5	640,4	2443,7	1315,3
	Trade intensity					%
Central	30,71	34,44	15,51	19,83	24,82	33,33
Eastern	13,41	14,43	16,97	14,12	12,54	6,17
Western	11,97	13,65	35,42	30,93	51,73	49,88
Prydniprovskyi	24,60	18,21	21,81	20,52	7,29	6,92
Prychoenomorskyi	16,38	15,90	1,76	1,86	1,63	1,71
North-Eastern	2,92	3,37	8,52	12,74	1,99	1,99
Total	100%	100%	100%	100%	100%	100%

^{*} developed and estimated according to [Статистичний збірник, 2011, s. 488-572]

As far as the territory of Central macroregion borders the territory of Russia and Belarus, the intensity of turnover on this cross-border market is the highest. The turnover intensity level with Belarus increased to 47,29% in 2010 and amounted to almost half of the trade volume of Ukraine with this country. With Russia the turnover increased to 40,09%. The levels of turnover intensity with Moldova, Poland and Romania, although the territories of these countries do not border the Central macroregion, increased at 5,55%, 2,99% and 3,73% respectively due to the fact that the part of trade enterprises located in all macroregions are registered as the economic entities in Kiev. That stipulates the biased statistical information on the division of foreign trade activity by the regions of Ukraine.

Foreign trade turnover of the Central macroregion with Slovak Republic and Hungary in 2010 amounted to \$126,9 mln and \$438,4 mln respectively.

Notwithstanding the fact that the Eartern macroregion intensity of trade turnover with Russia decreased at 7,74% in 2010 compared to 2009, the foreign trade turnover amounted to \$4897,3 mln. The highest volume of foreign trade turnover of the Eastern macroregion with the countries not adjacent to this macroregion in 2009 was with Romania – \$115,3 mln and the lowest – with Hungary – \$81,1 mln.

The Western macroregion differs among the other because it borders 6 countries. Moreover, it conducts cross-border trade with 4 EU countries. This geographical position advantageously promotes the activity of cross-border markets at the adjacent territories and therefore increases the level of foreign trade intensity with these countries. However, this macroregion does not take the leading position by trade intensity as well as the other macroregions except for the Central one. Among all the neighbouring countries the trade intensity level of the Western macroregion was the highest with Hungary – 49,88% in 2010 amounting to the half of the total trade of Ukraine with Hungary. Average trade intensity level with Poland and Slovak Republic amounted to 34,96% and 30,93% respectively that was the third part of Ukraine's trade with these countries. The lowest level was with Romania, Belarus and Moldova – 13,65%, 12,70%, 10,68% respectively. Russia does not border the Western macroregion and has the lowest level of trade turnover intensity -2,37%. Nevertheless, the

foreign trade turnover of the Western euroregion with Russia amounted to \$508,6 mln., which is much higher than with Moldova and Belarus.

Prydniprovskyi macroregion has the common naval cross-border market with Russia with the intensity of turnover in 2009–2010 decreasing at 5,86% and amounting to 16,17%. The highest intensity of the turnover in 2010 was with the Slovak Republic and amounted to 20,58%. The lowest intensity of turnover with Hungary amounted to 6,98%.

Prychornomorskyi macroregion had the high intensity of turnover with the countries adjacent to its territory in 2010, namely – with Moldova – 18,68% and 15,90% with Romania. The highest turnover intensity of Prychornomorskyi macroregion with the countries non adjacent to its territory was with Belarus – 11,98% - and the lowest – with Hungary – 1,71%.

North-eastern macroregion as well as the Eastern and Prydniprovskyi regions borders only Russia. The intensity of turnover of the North-Eastern macroregion and Russia amounts to 8,92% and does not surpass the intensity of turnover with other neighbouring countries. For example, the intensity of turnover with Moldova and Slovak Republic amounted to 14,60%, and 12,74% respectively. However, the foreign trade turnover of the North-Eastern macroregion was the highest in the cross-border market with Russia – \$1910,5 mln in 2009. The lowest trade intensity was with Hungary – 1,99%.

The conducted analysis testifies the fact that the intensity of the turnover of the examined Ukrainian macroregions with the

neighbouring countries was the highest for the domestic market of the regions with the most developed infrastructure and for the macroregions that constitute the part of cross-border markets.

As far as Ukraine borders 4 countries-EU members CC, the development of domestic market infrastructure and its influence on cross-border cooperation can become one of the most important directions of Ukraine's integration to Europe.

Therefore, the domestic market infrastructure is the system of state, private and public institutions, technical measures and communication channels that service the interests of the domestic market entities and secure their efficient cooperation with bordering regions of the neighbouring countries enabling the development of goods and cash flows in cross-border trade.

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