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EXPORT ACTIVITY OF MASHINE-BUILDING ENTERPRISES WITHIN TRANSFORMATION OF UKRAINIAN FOREIGN TRADE

Urgency of the research. Transformational processes in Ukrainian economy and its integration to European and world economic areas set new challenges to domestic machine building.

Target setting. In modern conditions, national machine building suffers from huge economic crisis and loses its competitive fight in domestic and, what is sufficiently important for the economy of Ukraine, in foreign markets.

Actual scientific researches and issues analysis. The operation of Ukrainian machine building enterprises, including that on the international markets, has been studied by:Yu. M. Bartyshevska, T. A. Kalna, N. V. Balabanoova, N. V. Ravlyk et al.

Uninvestigated parts of general matters defining. The situation in international markets of machine building products as well as in the national economy is changing dynamically, causing new problems and challenges for Ukrainian machine building enterprises. It requires more profound research of problematics and perspectives of export activities of the enterprises.

The research objective. The goal of the article is to distinguish problems and perspectives of export activity of domestic machine building enterprises, based on the estimation of Ukrainian machine building dynamics and its foreign economic activity, taking into consideration the transformation of country's foreign development vector.

The statement of basic materials. The article deals with the study of dynamics of machine building development in 2006 – 2016 stressing foreign economic (export) activity. Problems of export activity of machine building enterprises in Ukraine have been outlined, among them: the level of competitiveness, low quality of products, problems with development and production of innovative goods, deficit of investment resources. The special attention is given to perspectives of such an activity for the area under consideration.

Conclusions. The research conducted has allowed to formulate certain problems of export activity and to define perspectives of foreign economic activity of national machine building enterprises, occured in terms of foreign economic transformation of the country.

Keywords: export; foreign activity; machine-building; perspectives; problems of export activity; competitiveness; competitive advantages.

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ЕКСПОРТНА ДІЯЛЬНІСТЬ МАШИНОБУДІВНИХ ПІДПРИЄМСТВ В РАМКАХ ТРАНСФОРМАЦІЇ ЗОВНІШНЬОЇ ТОРГІВЛІ УКРАЇНИ

Актуальність теми дослідження. Трансформаційні процеси в економіці України її інтеграція до європейського та світового економічного простору ставлять нові виклики перед вітчизняним машинобудуванням.

Постановка проблеми. У сучасних умовах національне машинобудування знаходиться у глибокій економічній кризі, програючи конкурентну боротьбу на внутрішньому, і, що особливо важливо для економіки України, на зовнішніх ринках збуту.

Аналіз останніх досліджень і публікацій. Діяльність машинобудівних підприємств України, у тому числі на міжнародних ринках досліджували: Ю. М. Барташевська, Т. А. Кальна, Н. В. Балабанова, Н. В. Равлик та ін.

Виділення недосліджених частин загальної проблеми. Ситуація на міжнародних ринках машинобудівної продукції та у національній економіці досить динамічно змінюється, породжуючи нові проблеми та виклики для українських підприємств машинобудування, що потребує більш ґрунтовних досліджень проблематики та перспектив експортної діяльності зазначених виробників.

Постановка завдання. Стаття покликана, базуючись на оцінці динаміки розвитку машинобудівної галузі України та її зовнішньоекономічної діяльності визначити проблеми і перспективи експортної діяльності вітчизняних машинобудівних підприємств з врахуванням трансформації вектору зовнішньоекономічного розвитку країни.

Виклад основного матеріалу. У cmammi досліджується динаміка розвитку машинобудування у 2006 – 2016 роках з акцентом на зовнішньоекономічну (експортну) діяльність. Обґрунтовуються проблеми експортної діяльності машинобудівних підприємств України, а саме: рівень конкурентоспроможності, низька якість продукції, проблеми 3 розробкою ma інноваційної продукції, виробництвом дефіцит ресурсів. інвестиційних Окремо наводяться перспективи такої діяльності для досліджуваної галузі.

Висновки. Проведене дослідження дозволило сформувати низку проблем експортної діяльності та виділити перспективи зовнішньоекономічної діяльності національних машинобудівних підприємств, що з'явились в умовах трансформації зовнішньоекономічного розвитку держави.

Ключові слова: експорт; зовнішньоекономічна діяльність; машинобудування; перспективи; проблеми експортної діяльності; конкурентоспроможність; конкурентні переваги.

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Urgency of the research. Transformation processes in Ukrainian economy, as well as its integration into European and world economy, pose new challenges to all sectors of the national industry with no exceptions. Taking into account export orientation of the national economy in the current conditions, the most important criteria of its operation is to identify and implement the export potential of its most promising and recognized branches. Engineering is also included to these industries.

Target setting. National machine-building enterprises were not ready to change foreign economic activity of Ukraine and the transformation processes in the economy in 2014–2016. It has affected all aspects of their financial-economic activity. Now the domestic machine-building enterprises are in a deep economic crisis, losing the competitiveness both in domestic and foreign markets. The situation represented requires containment and elimination (of what) in the short term as it is a threat to the strategic development and economic security of Ukraine.

Actual scientific researches and issues analysis. Activities of machine-building enterprises in Ukraine attracted much attention of scientists. They are observed in the following researches: general aspects of the industry in the context of national economic processes (the scientific papers of Yu. M. Bartashevska, V. O. Lehovitser, A. S. Kuzmina et al.); problems and prospects of competitiveness of domestic machine-building enterprises (the scientific papers of O. P. Romanko, T. A. Kalna, A. V. Kolodiychuk, N. V. Balabana et al.); problems and prospects of domestic machine-building enterprises (the scientific papers of domestic machine-building enterprises (the scientific papers of scientific papers of domestic machine-building enterprises (the scientific papers of scientific papers of domestic machine-building enterprises (the scientific papers of Scientific papers of domestic machine-building enterprises (the scientific papers of K. V. Selezneva, N. V. Ravlyk, N. M. Shmyhol, T. S. Pavlyuk et al.).

Uninvestigated parts of general matters defining. Despite the high scientific value of the abovementioned scientific studies of domestic scientists it should be noted that the situation is changing very rapidly in the international markets of machine-building products and in the national economy and industry. It creates new problems and challenges for the Ukrainian machine-building enterprises. The significant transformation processes should be necessarily noted in foreign economic activity of Ukraine, as they actively influence the potential export and domestic exports of machine-building products. It is necessary to conduct a substantial research of issues and prospects for national manufacturers of machine-building products.

The research objective. Based on an assessment of the dynamics of the Ukrainian machinebuilding industry development and its foreign trade activities it is necessary to identify the problems and prospects of domestic machine-building enterprises export within transformation of foreign economic development.

The statement of basic materials. Machine-building along with the metallurgical and chemical industries are the key industries of any developed economy. For example, in Germany, its share in industrial output of the country is at the level of 50–55%, in Japan – at 45–50% in the UK – at 35–40%, in China – at 30–35% [1, p. 4]. It is also worth noting the importance of machine-building for export supplies of modern industrialized countries: Germany (42% of exports), Japan (40% of exports), US (34% of exports), etc. [2, p. 24].

Transformational crisis of 1991–1998 and two waves of economic crisis of 2008–2009 and 2014–2015 significantly reduced the value of machine-building industry for the Ukrainian economy. The problems of domestic machine-building enterprises during the crisis of 2014–2015 and in the post-crisis period became of particular importance as a sharp reduction of effective demand and the change of foreign economic development vector have led to the loss of most of the domestic and foreign markets. The current situation in machine-building industry requires a clear definition of problems and prospects of the industry, especially with regard to exports, as it is a key to machine-building enterprises around the world. The continuity of crisis in machine-building industry threatens the economic stability of Ukraine and enhances economic threat as the country has a limited list of goods (works, services) for export activity and, taking into account the export orientation of the national economy, is highly dependent on the price conjuncture on a limited number of product markets.

Thus, the question of the withdrawal of national machine-building industry from crisis is one of the most topical current conditions in the domestic economy. At the same time, the problems of export

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activity and its intensification for manufacturers of machine-building products in Ukraine are being highlighted.

A study concerning the growth rate of machine-building industry, national industry and gross domestic product in 2006-2016 has been conducted (Tab. 1).

Table 1

	by names of the growth rate of machine building musicy,									
F	national industry and GDP in 2006–2016									
	Years	Growth rate of GDP until	Growth rate of industry	Growth rate of machine-building						
		previous year, %	until previous year, %	industry until previous year, %						
	2006	25,3	9,5	31,3						
	2007	30,1	18,5	52,5						
	2008	31,5	-2,2	10,6						
	2009	-3,7	-21,7	-44,9						
	2010	18,6	11,2	36,1						
Ī	2011	20,2	8,0	15,4						
Ī	2012	8,4	-0,1	-2,7						
Ī	2013	3,1	-3,4	-13,2						
Ī	2014	9,1	-10,1	-20,6						
Ī	2015	25,3	-13,0	-14,1						
	2016	19,8	2,8	14,5						

Dynamics of the growth rate of machine-building industry

Source: compiled by the author based on [3]

Thus, machine-building industry and gross domestic product grew more rapidly than industrial production in the country in the pre-crisis period. So, it can be stated it was one of the drivers of the national economy and industry. To sum up (Table 1) it may be noted that machine-building has lost its leading role, providing the growth of the national economy since 2008 (except for the situation in 2010): the same situation existed for the national industry in 2012–2015.

Thus, we can mention the crisis in the industry, which has deepened since 2012, when Ukraine actively began to change the vector of foreign economic interaction from CIS countries to the EU.

The situation represented negatively affected the share of machine-building industry in the total amount of national industry (Fig. 1).

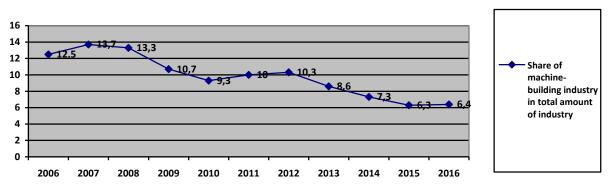


Fig. 1. Share of machine-building industry in total amount of national industry of Ukraine for 2006-2016, %

Source: compiled by the author based on [3]

After a period of the highest value share of the machine-building industry in the total amount of national industry of Ukraine in 2007–2008 (Fig. 1), the gradual decline, with some periods of correction trend (2010-2012), has been observed during the next years. The special attention should be paid to the period from 2012 to 2015, when the share of machine-building industry in the domestic industry sharply decreased from 10.3% (2012) to 6.3% (2015). The overall decrease was 6.1%, or almost two

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times for the period investigated. The above-mentioned also shows the deep crisis in machine-building industry, which intensified during the second wave of economic crisis in Ukraine. Thus, we can note that the national machine-building industry was one of the most affected by the crisis manifestations in the national economy and changes in foreign economic development of the country areas. The loss of the leading role of the machine-building industry for the national economy and industry of the country could also be noted. It is especially noticeable against the background of figures of machine-building industry in 1991 – more than 30% [1, p. 3].

Whereas machine-building industry in Ukraine is export-oriented, we are to thoroughly examine this aspect of machine-building enterprises in 2006–2016, comparing it with import. Table 2 shows the dynamics of growth rates of exports and imports of machine-building products and the overall size of the export and import of Ukraine.

Table 2

of machine-building products of okraine in 2000–2010								
Years	Growth rate of exports of machine-building products	Growth rate of exports of Ukraine until	Growth rate of imports of machine-building industry	Growth rate of imports of				
rears								
	until previous year, %	previous year, %	until previous year, %	Ukraine until				
				previous year, %				
2006	20,3	12,1	36,2	24,6				
2007	53,0	28,4	44,3	34,7				
2008	28,8	35,8	35,6	41,1				
2009	-38,0	-40,7	-67,0	-46,9				
2010	35,1	29,6	40,5	33,7				
2011	30,0	33,0	71,4	36,0				
2012	14,39	0,6	10,8	2,5				
2013	-47,5	-8,0	-44,5	-9,1				
2014	-18,9	-13,5	-30,1	-28,2				
2015	-30,3	-29,3	-28,1	-31,1				
2016	-7,7	-4,6	25,8	4,6				
Source: compiled by the author based on [3]								

Dynamics of growth rates of exports and imports of machine-building products of Ukraine in 2006–2016

Source: compiled by the author based on [3]

The growth rate of exports of machine-building products was mainly higher than export growth rate in Ukraine over 2006–2012 (Tab. 2), indicating that machine-building industry acted as one of the leading export sectors of the economy at that time. The significant decline in exports of products of machine-building enterprises has been noted since 2013 (the first year of change of foreign economic vector of Ukraine). Thus, the decline in exports of machine-building products has been more than decline in export of state as a whole during all the years since 2013, i.e. the export of machine-building products had one of the most negative impacts on Ukraine decline in export. Thus, the national machine-building enterprises, losing traditional foreign markets by changing foreign economic development vector in new overseas markets were not competitive for various reasons. Ukraine loses machine-building industry as one of the leading export sectors of the country.

On the other hand, the growth rate of imports of machine-building products was higher than the growth rate of exports for almost the entire period investigated, except for 2007, 2009, 2012, 2014 (Tab. 2), which indicates that the domestic machine-building enterprises rapidly lose national market and they are uncompetitive on it.

The positive growth rate of imports of machine-building industry in 2016 (25.8%) should be separately noted against the background of negative rates of exports (-7.7%), indicating a renewed interest in foreign machine-building products on the national market against the background of demand reduction for Ukrainian machine-building products in foreign markets.

The situation represented negatively affected the share of exports of machine-building industry in the total amount of national exports (Fig. 2).

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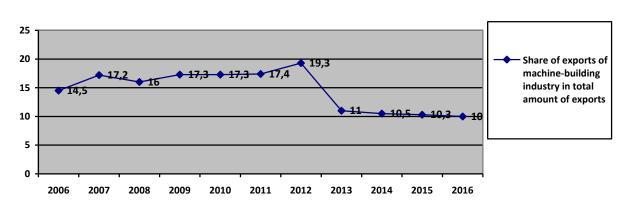


Fig. 2. Share of exports of machine-building industry in total amount of national exports of Ukraine for 2006–2016, %

Source: compiled by the author based on [3]

The share of exports of machine-building industry in the total amount of national exports of Ukraine for every year, except for 2008 (-1.2% until the previous year), increased and reached in 2012 at 19.3% (4.8% for seven years) after the positive trend in 2006–2012. Thus, the negative trend has been clearly observed (-9.3% for four years) since 2013 (the beginning year of change of foreign economic vector of Ukraine). A sharp reduction should be marked in the share of exports of machine-building industry in the total amount of national exports of Ukraine in 2013 (-8.3%) and every next year until 2016 inclusive. Thus, the information represented in Fig. 2 confirms earlier conclusions about the loss of a significant share of traditional foreign markets (CIS) and weak competitiveness in new overseas markets (EU countries) by the domestic machine-building enterprises.

On the other hand, the share of exports of machine-building industry in the total amount of national exports of Ukraine in 2016 shows its significant export potential that is necessary to be realized by localising and developing the complex for problem solving in terms of the transformation of foreign economic development of Ukraine.

We agree with N. V. Balabanov that the domestic machine-building enterprises in modern conditions of operation on international markets have not considered the main trends of international trade concerning products of machine-building industry, namely: 1) a sharp increase in the quality of scientific and technological processes in the financial-economic activity; 2) an optimization of industrial and other expenses through the use of modern information technologies; 3) a formation and development of world markets of innovative products and labour; 4) an intense competition in export markets of machine-building products according to quality parameters; 5) a sharp change in the range of machine-building products in the context of innovation level increase; 6) a reduce of cost for manufacturing due to its transfer to countries with developing cheap labour, which increases price competition on the world market; 7) a unification of national technical requirements for manufacturing of machine-building products; 8) a transfer of technology from industrialized countries to the countries whose economies are in the stage of formation and development; 9) an increase of the role of transnational corporations on international markets of machine-building products; 10) a manufacturing and realization of machine-building products within one or more countries, taking into account national peculiarities [4, p. 21].

The above-mentioned points lead to the low competitiveness of domestic machine-building enterprises on foreign markets. It is a basic problem in their export activities. It should be proved by using the method of B. Balas, L. Scott, T. Vollrata calculating three indexes of assessment of the competitive advantages of Ukrainian machine-building industry on the world markets: Relative Export Advantage Index (RXA); Relative Import Penetration Index (RMP); Relative Trade Advantage Index (RTA) [5; 6; 7].



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The dynamics of indexes RXA, RMP, RTA for 2006–2016 for the machine-building industry of Ukraine in represented on Fig. 3.

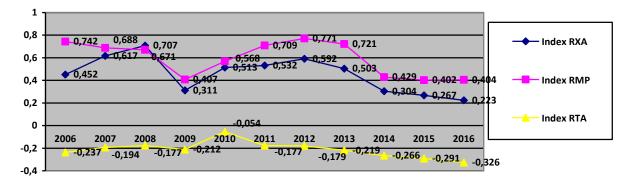


Fig. 3. Dynamics of indexes RXA, RMP, RTA for 2006–2016 for the machine-building industry of Ukraine

Source: compiled by the author based on [8]

According to the dynamics represented, machine-building industry of Ukraine had low competitiveness on export markets (RXA) in 2006–2016, but after some improvements in 2006–2008, there was a decline in 2009, with a gradual increase in the index in 2010–2013 and a sharp index decline in 2014–2016. The index in 2014–2016 was the lowest for the period under unvestigation, indicating a loss of competitiveness of domestic manufacturers of machine-building products on export markets.

The dynamics of RMP in 2006–2016 (Fig. 3) demonstrated that the machine-building industry in Ukraine is highly dependent on imports with negative sales trend in 2013–2016.

Negative values of RTA in 2006–2016 (Fig. 3) confirm the low competitiveness of domestic machine-building industry on foreign markets with negative sales trend beginning in 2011 and continuing until 2016.

The above-mentioned shows that the innovative and active machine-building enterprises on export markets are of high competitiveness. According to the State Statistics Committee of Ukraine in 2016, innovations were implemented by 409 out of 3915 machine-building enterprises, i.e. 10.45% of overall amount of enterprises, but only 168 enterprises implemented innovative products from Ukraine, i.e. 4.29% of all enterprises [3]. Thus, Ukrainian machine-building enterprises supply critically low amount of innovative products for export. It has a significant problem of its export activities, particularly regarding the changes in foreign economic development and integration into the highly competitive EU markets.

The above-mentioned major trends in international trade in the machine-building industry indicated that consumers prefer quality parameters of options prices on the global markets. High-quality products can be achieved by having two main components: new fixed assets (equipment, technology, facilities, etc.) and high-quality staff.

According to the State Statistics Committee of Ukraine depreciation of fixed assets of machinebuilding enterprises was more than 60% in 2016, demonstrating a negative trend in 2006–2016, but the average monthly salary varied depending on the sub-sectors of machine-building industry from 3744 UAH to 4345 UAH. As the average wage in industry of Ukraine was 5003 UAH, it means that it was less than the average in the industry [3]. Thus, the machine-building industry of the country cannot offer high-quality products to export markets, focusing on the competitiveness of the price. It is not sufficient in the current conditions on these markets and this is another problem concerning export activity area.

Solving the problems connected with innovations, upgrade fixed assets, improvement of the quality of staff training is possible by significant investments in financial-economic activity of machine-building

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enterprises of Ukraine. It could be achieved both through reinvestment of net income, or attracting foreign investment, preferably from foreign investors.

State Statistics Committee of Ukraine data indicate that the machine-building of the country received 1,530 mln. UAH. of net loss in 2016, i.e. it is 12.91% of the net loss received by industrial enterprises of the state this year (a significant net loss was obtained by machine-building enterprises in 2015 and 2014) [3]. It is noted about a significant reduction in capital investment in machine-building industry in 2013–2015 with a partial recovery in 2016. However, the actual level of capital investment was the smallest for the period investigated in 2013–2016 [3]. Concerning foreign direct investment, it should be noted that domestic machine-building industry was interesting only for local entrepreneurs who made investments through offshore enterprises and businessmen from CIS countries. Due to such conditions, the economic crisis in Ukraine in 2014–2015 and political problems led to a decline in FDI in the sector – about 40% [3]. Thus, taking into account the high cost of bank loans and the weak development of the domestic financial and stock markets, domestic machine-building enterprises have access to investment resources. That is why it is still one of the problems of export industry.

In spite of a number of problems, machine-building industry in Ukraine has great prospects to realize its export potential. These prospects include: - significant production capacity that is not overloaded because of the crisis in the economy of a country and a sharp reduction in export deliveries; - activation of SMEs in the export business because of a greater flexibility than larger businesses with appropriate government support, as well as support of local authorities, international financial organizations, governments - countries partners of Ukraine, especially in the member countries of the European Union; - the return of traditional export markets by changing the schemes of product delivery for them (representations, branches, trading partners from product exporting country, joint ventures, sale of licenses, etc.); - increase of export of innovative and high technology products of machine-building during the increasing of cooperation of the industry with academic establishments and organizations, especially industrial scientific and research institutions and higher education establishments (establishment of small innovative enterprises on the basis of them); intensification of product exports of machine-building industry for the military support of the Government of Ukraine and taking into account the significant financial capabilities of enterprises of the military-industrial complex in terms of increasing military expenditures of the state; - integration of domestic machine-building enterprises in international and foreign multiprofile and multifunctional corporations; - integration of national manufacturers of machine-building products in cooperative schemes of product manufacturing with producers of the following countries: EU, USA, Canada, Turkey and Asia.

Conclusions. The investigation allowed to form a number of problems concerning exports of machine-building industry of Ukraine (level of competitiveness, low product quality, problems with the development and production of innovative products, deficit of investment resources), which appeared in the conditions of transformation of foreign economic development of the state (the transition from CIS markets to integration into European and world economic space). The prospects for realization of export potential of machine-building industry of the country have also been formulated under the new conditions of the functioning of foreign economic state.

In further research it is necessary to identify more clearly the problems of export activities of machine-building enterprises with regard to their division into the certain sub-sectors.

References

1. Savchenko, S. M. (2011). Konkurentospromozhnist ukrayinskogo mashynobudivnogo kompleksu na zovnishnix ta vnutrishnix rynkax [Competitiveness of Ukrainian machinebuilding complex in domestic and foreign markets]. Problemy pidvyshhennya efektyvnosti infrastruktury – Problems of improving infrastructure efficiency, 29, 1–13 [in Ukrainian].

2. Prokhorkin, D. P. (2016). Mizhnarodnyi rynok mashynobuduvannia: tendentsii, problemy, perspektyvy [International market of mechanical engineering: trends, problems, perspectives]. Ekonomika ta innovatsiinyi rozvytok

Література

1. Савченко, С. М. Конкурентоспроможність українського машинобудівного комплексу на зовнішніх та внутрішніх ринках / С. М. Савченко // Проблеми підвищення ефективності інфраструктури. – 2011. – № 29. – С. 1–13.

2. Прохоркін, Д. П. Міжнародний ринок машинобудування: тенденції, проблеми, перспективи / Д. П. Прохоркін // Економіка та інноваційний розвиток національного господарства. – 2016. – № 4 (62). – С. 22 –30.

Yarosh-Dmytrenko L. O. Export activity of mashine-building enterprises within transformation of Ukrainian foreign trade

natsionalnoho hospodarstva – Economics and innovative development of the national economy, 26, 2–30 [in Ukrainian].

3. Sait Derzhavnoi sluzhby statystyky Ukrayiny [Site of State Statistics Service of Ukraine]. (2017). *www.ukrstat.gov.ua*. Retrieved from http://www.ukrstat.gov.ua [in Ukrainian].

4. Balabanova, N. V. (2013). Konkurentospromozhnist produktsii mashynobudivnoho kompleksu Ukrainy [Competitiveness of products of machine-building complex in Ukraine]. *Visnyk MDU. Seriya: Ekonomika – Bulletin of MSU. Series: Economics, 5,* 21–27 [in Ukrainian].

5. Balassa, B. (1979). Intra-industry trade and the integration of developing countries in the world economy. Washington: World Bank, Publications Unit [in English].

6. Scott, L. (1992). Global competitive advantage and overall bilateral complementarity in agriculture: a statistical review. Washington D.C., Economic Research Service [in English].

7. Vollrath, T. L. (1991). A theoretical evaluation of alternative trade intensity measures of revealed comparative advantage. *Weltwirtschaftliches*, *127(2)*, 265–280 [in English].

8. United Nations Conference on Trade and Development. (2017). Retrieved from http://unctadstat.unctad.org [in English].

3. Статистична інформація. Державна служба статистики України. [Електронний ресурс]. – Режим доступу: http://www.ukrstat.gov.ua.

4. Балабанова, Н. В. Конкурентоспроможність продукції машинобудівного комплексу України / Н. В. Балабанова // Вісник МДУ. Серія: Економіка. – 2013. – № 5. – С. 21–27.

5. Balassa Bela. Intra-industry trade and the integration of developing countries in the world economy, J.C.B. Mohr, Tubingen. – 1979. – 280 p.

6. Scott, L. Global competitive advantage and overall bilateral complementarity in agriculture: a statistical review / L. Scott, T. L. Vollrath. – Washington D.C., Economic Research Service, 1992. – Pp. 5-40.

7. Vollrath T. L. A theoretical evaluation of alternative trade intensity measures of revealed comparative advantage / T. L. Vollrath. – Weltwirtschaftliches, 1991. – 380 p.

8. United Nations Conference on Trade and Development [Electronic resource]. – Retrieved from : http://unctadstat.unctad.org.

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