"Impact of social and economic development of the region on the international trade by the example of Ukraine"

| AUTHORS | Sergiy Frolov https://orcid.org/0000-0001-9374-7274
R http://www.researcherid.com/rid/C-1635-2018
Oksana Savytska
Liudmyla Ostapenko https://orcid.org/0000-0001-9953-4771 |

NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
0	0	0

Sergiy Frolov (Ukraine), Oksana Savytska (Ukraine), Liudmyla Ostapenko (Ukraine)

Impact of social and economic development of the region on the international trade by the example of Ukraine

Abstract

International trade is a significant factor in economic development and meeting global standards is essential for economic growth of any country. However, increase in exports and imports can have both negative and positive effects. The purpose of the article is to establish impact of regional economic and social development level on international trade and distinguish influential factors. Research is conducted using economic indicators in Ukraine, and Sumy region in particular. Factors are divided into four groups and their impact is assessed through correlation and causal analyses of 48 indicators resulting in construction of VAR model. Modeling resulted in obtaining exports equation in Sumy region and confirmed that shocks in standard deviation of economic indicators (world prices of oil "Brent" and corn, official hryvnia exchange rate to the US dollar, interest rate on deposits, etc.) affect exports and imports volumes. Reliability of calculations is confirmed by the comparison of graphs that represent calculated and actual data for both exports and imports. Approach used in the research will allow identifying possible risks and dangers to international trade in connection to economic and social factors in region, thus, allowing flexible management and decision implementation at a regional level.

Keywords: international trade, region, economic and social factors, VAR model.
JEL Classification: B17, F5.

Introduction

International trade is a major incentive in the global market of capital, labor and goods. It directly influences the development of any country, because exports and imports of the state affect the level of development of the national economy and on globalization of the world economy. Therefore, it is important to match the requirements the international trade market that will ensure the effective maintenance of the economy. Thus, in a globalized world, the achievement of economic growth depends on the degree of integration of domestic enterprises and their products into global economy, public support for innovation and competitive production, improving the quality of training in the employment market, the availability of macroeconomic and institutional environment conducive to the achievement of social development and social justice in society (Borg Anders, 2016). Figure 1 shows the dynamics of world exports and GDP in 2005-2015 and their predictive value by 2018. As a result of the analysis of the data, we see a significant predominance of international trade on GDP values.

International trade can be a significant factor during economic development of Ukraine.

However, the increase of exports and imports can have both positive and negative effects for the economy. Thus, a significant predominance of imports may lead to dependence on world prices and a gradual displace of domestic production by foreign products, which will lead to the reduction of national production. However, the increase of exports may lead to export dependence on the situation in the world market. Recent years are quite difficult for Ukrainian commodity producers in competition with European companies. The reason of that is a significant amount of factors, from the material and financial condition of international trade actors, in particular, those exporters which are situated in different regions of the country, to qualitative and quantitative requirements of the world market to products and accommodations. These factors redirect domestic enterprises to perform intermediary services, sales of raw materials or labor power, what hinders the development of economy. Today, the policy of decentralization of power is important for Ukraine. It presupposes redistribution of powers and responsibilities of central government to local government. Thus, the economic issues of the country should be divided and resolved locally, i.e., in the regions that have to to form, regulate and develop their own financial capabilities. Region for this policy is a territory, separated geographically depending on its production characteristics, culture and historical traditions (Mamatova, N.).

Sumy region is a typical Ukrainian region. Gross regional product (GRP) is one of the main indicators of the financial stability of the region. But since international trade is an integral part of economic development, Figure 2 reflects the dynamics of the GRP and export-import transactions in the region for 2008-2015. Later in this article, we will talk about international trade in the region (Sumy region), namely the export-import operations of enterprises, organizations and institutions working in the region.

Sergiy Frolov, D.Sc. (Economics), Professor, Sumy, Ukraine.
Oksana Savytska, Ph.D. Student, Department of Finance, Sumy State University, Ukraine.
Liudmyla Ostapenko, Ph.D. in Economics, Director of Limited Liability Company "Consulting Publishing Company "Business Perspectives", Ukraine.
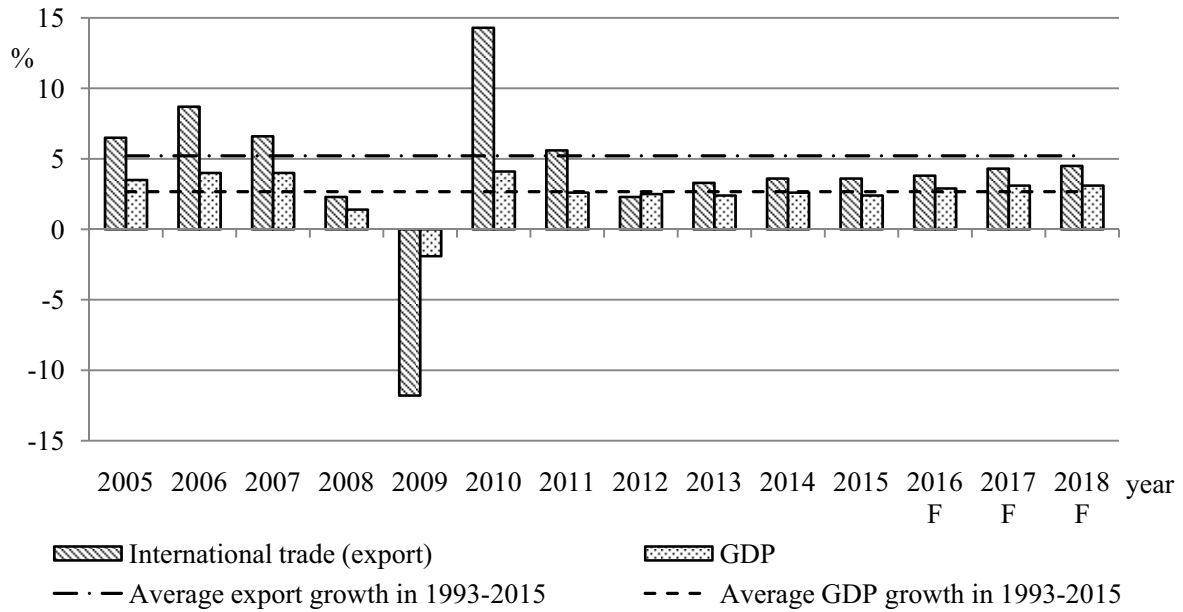
Fig. 1. Dynamics of world trade and GDP in 2005-2015

Sources: Jing Shouwu, Xia Yong, Li Zheng (2016); Kamil Pikuła (2014); Majid M. Al-Sadoon (2015).
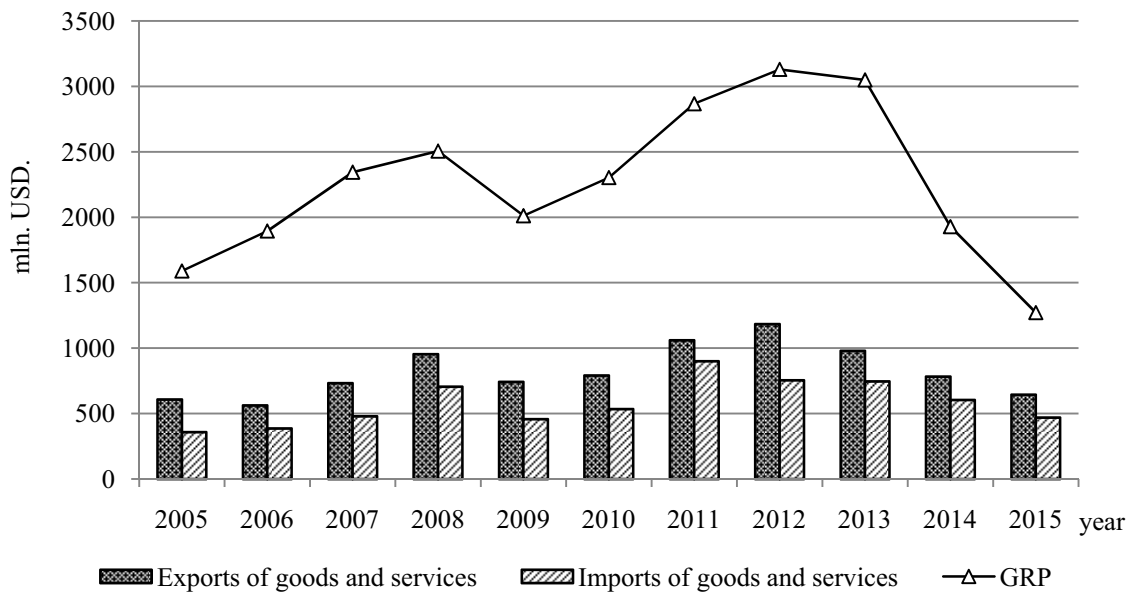

Fig. 2. Dynamics of export and import of goods and GRP in the Sumy region of Ukraine for 2005-2015

Source: Krenz, Astrid (2016).

The indicators' dynamics of the international trade of Sumy region and its GRP demonstrates the synchronous changes during 2008-2015. It is noteworthy that the increase of import and export of the country affects the indicators of GRP. This tendency is accounted for by the fact that the increase in GRP of the region directly affects the number of manufactured goods and services involved in international trade. The growth of exports is much slower than the growth rate of GRP. However, the tendency is that when GRP increases, exports is also increased, and vice versa. In view of these trends, we should focus on indicators of the international trade in the region, because they affect the increase rates of economic growth and revitalization of the investment appeal at the regional level and at the level of the country in general.

Effective regulation and monitoring of the international trade in the region, aimed at economic and social development, makes it possible to achieve sustainable financial and economic situation of the regions and countries. However, it is necessary to identify the factors of impact on export-import activities in the region to implement these conditions, because their stimulation or restraint can increase the economic potential of the region.

1. Literature review

There are a lot of modern foreign authors that are dedicated to studying of the major factors of impact on the international trade. For example, J. E. Anderson, J.P. Neary, W.J. Ethier, E. Helpman, J.P. Martin, W.M. Corden, H. Milner, J. Caballero, C. Candelaria, M. Albiman, N.N. Suleiman, T. Mayer, M. Thoenig, M. Yayo, N. Otgonsaikhan, K. Aydin, G. Narzullayeva, Y. Sperlich and others. They pay attention to different classifications that enable to group influence factors and offer their own opinion regarding their evaluation. Key aspects of the formation and regulation of international trade in the region of Ukraine, which comprises the steps of determining the list of impacts, are presented in the works of of such scientists as U.M. Barsky, A.S. Bulatova, U.G. Kozak, L.G. Lipich, O.G. Melnik, L.I. Piddybna, A.P. Rymyantsev, A.S. Savyschenko, K.S. Soloninko. That's why today it is important to detect, cluster and evaluate the main factors, which affect the dynamics of international trade regions of the country.

2. Hypotheses development

The study of impacts on international trade is quite common in the scientific literature. They are grouped according to different characteristics, they are offered to be classified, but the majority of authors have not identified any unequivocal approach to distinguish the key determinants that affect the international trade. Having analyzed the works of scientists, we have identified the main factors of influence that affect the performance of the international trade of the country, the region and various entrepreneurs (from businesses to international organizations). It was found that the majority of scientists determine the factors such as: economic, resource, political, legal, technological and innovation factors. These factors are: economic stability of the main macroeconomic indicators in the country; the financial position of the international trade and their resources; the political mood in the country and abroad; the regulatory framework; the level of production and technical support; innovative potential of territory or enterprise.

Social, information and labor factors occur less frequently in scientific literature. These factors are more focused on the labor force involved in the management of production or exports. Also, this labor force may be the consumers of export and import goods and services. Also, some of the scientists distinguish a group of local and environmental factors. These groups of factors are focused on the location of the subject of export-import activities and climatic conditions, acting on this subject and not submitting to it.

Taking into account the views of scientists on the isolating impacts on international trade, we consider it appropriate to present their own vision regarding the factors influencing the formation of indicators of foreign trade in the country.n Summarizing the achievements of theoretical scientists, we suggest the division of all factors into 4 groups according to their place of formation (Figure 3, see Appendix). There are corresponding 4 levels: enterprise, regional, country and world. This distribution will facilitate understanding and identification of the root causes of their manifestations and will enable the use of effective tools and methods for the development of foreign policy in the country.

Having examined possible factors that affect international trade, it is advisable to calculate and determine the factors that have the greatest impact on international trade in Ukraine. Vector Autoregression Models or VAR model will be used as a basis of calculation. VAR model is the model of the multiple time series, in which the current values depend on past values of the same series (Bannikov, V.A., 2006).

3. Methodology

The construction of VAR model in order to assess the impact of factors on the international trade of the region will be carried out in several stages. Namely Dudchenko, V.U. (2014); Izard, W. (1966); World trade report (2013); Global Economic Prospects (2016):

1. collecting initial statistic data;
2. checking up the time series on deviance and eliminating emissions;
3. correlation analysis that will determine the relationship between changes in the average value of export-import activities and factors;
4. causal analysis, which provides for the establishment of causal relationships between indicators of international trade and factors;
5. construction of the VAR model.

Thus, selected 48 indicators combined into 3 groups: indicators of region, country and world. Monthly data of the period from 2005 to 2015 will be used in the calculation of VAR model. After performing the preliminary investigation, it is necessary to reject the factors that have little or do not have any effect on the resultant figure. The obtained set of relevant factors is used to construct the VAR model by the Formula 1.

$$y_t = c + A_1 y_{t-1} + \ldots + A_p y_{t-p} + Bx_t + \varepsilon_t, \qquad (1)$$

where c – the vector of constants; y_t – k-dimensional vector of endogenous variables; x_t – d-dimensional vector of exogenous variables; $A_1, \ldots, A_p, B$ – the matrix of coefficients subject to evaluation; ε_t – the vector of errors; p – the number of lags.

4. Modeling results

Table 1 shows the results of the first four stages of the application of methods of constructing VAR model to assess the impact of factors on the export and import of goods in Sumy region. Table 1 shows the number of input indicators and their conditional denotation, which will be used in the future. Check of time series for anomalism was calculated for the whole data set and the 4th column shows the number of them. After checking the statistical information with obtained values, emissions (i.e., abnormal value statistics) were eliminated.

Table 1. Conditional results of 2, 3 and 4 stages of VAR model construction

№	Indicator	Symbol	Number of anomalous values	Correlation analysis		Check for stationary (+ - stationary; - Δ stationary in first differences)	Causal analysis (→,← -impact x → y on the number of lags)	
				Export	Import		Export	Import
1	2	3	4	5	6	7	8	9
	Indicators in Sumy region							
1	Exports of goods	Export_G	8	1.000	0.669	+	-	-
2	Imports of goods	Import_G	16	0.669	1.000	+	-	-
3	Expenditure on scientific, scientific and technical activities	Expend_RSTA	14	0.680	0.513	+	→1	→3
4	Direct foreign investment	FDI	6	0.360	0.589	Δ	←2	→1
5	Capital expenditure at current prices	CE	11	0.182	0.226	+	-	-
6	Average monthly nominal wage	AMNW	0	-0.015	0.193	Δ	-	-
7	The unemployment rate (ILO)	UR	5	-0.254	-0.271	Δ	→1	→1
8	The number of unemployed (ILO)	NU	4	-0.310	-0.378	+	←2	→3
9	Permanent population (at the end of year)	PP	1	0.084	-0.123	+	-	-
10	Incomes	INCOMES	11	0.056	0.246	+	-	→1
11	Incomes per 1 person	INCOMES_1	13	0.100	0.287	+	-	→3
12	Personal expenditures on goods and services	PE_GS	15	-0.001	0.228	+	-	-
13	External migration (population arrived)	EMPA	21	-0.052	-0.051	+	-	-
14	External migration (retired people)	EMRP	26	-0.002	0.011	+	-	-
15	Freight	FT	20	0.513	0.628	+	←1	←2
16	Passenger turnover	PT	13	0.263	0.201	+	→1	
17	The growth rate of the index of agricultural products	GR_IAP	16	0.767	0.402	+	→9	→3
18	The growth rate of industrial production index	GR_IPI	22	0.238	0.613	+	-	→3
19	Wholesale trade enterprises	WTTE	22	-0.805	0.772	Δ	→10	→9
20	The volume of products, works and services forestry	AFPWS	15	-0.049	0.219	Δ	-	-
21	Industrial production volume	AIP	22	0.089	0.270	+	-	←2
22	Retail trade turnover	RTT	23	0.072	0.275	+	-	→2
23	Average sale prices for sunflower seeds	ASP_SS	13	-0.045	0.164	Δ	-	-
24	Average selling prices of potatoes	ASP_P	8	-0.250	-0.127	+	←1	→1
25	Average sale prices of vegetables	ASP_V	9	0.103	0.037	+	→1	←1
26	Average sale prices of livestock and poultry	ASP_LP	11	-0.137	-0.016	Δ	-	-
27	Average prices of grain and leguminous	AP_GL	11	-0.061	0.169	Δ	-	→1
28	Production of meat of all kinds	P_MAK	14	0.035	0.064	+	-	-
29	The consumer price index for food and non-alcoholic beverages	CPI_F	13	-0.285	-0.340	+	→2	←3
30	The consumer price index for alcoholic beverages, tobacco products	CPI_AB	14	-0.215	-0.357	+	-	→3
31	The consumer price index for clothing and footwear	CPI_CF	9	-0.073	-0.088	+	-	-
32	The consumer price index for housing, water, electricity, gas and other fuels	CPI_H	16	-0.096	-0.140	+	-	-
33	The consumer price index for household items, household equipment and routine maintenance of housing	CPI_HI	9	-0.481	-0.364	+	←1	←1
	Indicators in Ukraine							
34	The official hryvnia exchange rate to the USD.	KURS_USD	7	-0.753	-0.755	Δ	→9	→9
35	The official hryvnia exchange rate to the euro	KURS_EUR	15	-0.556	-0.535	Δ	→2	→3
36	The official hryvnia exchange rate to Russian ruble	KURS_RUB	14	-0.467	-0.541	Δ	-	→4

Table 1 (cont.). Conditional results of 2, 3 and 4 stages of VAR model construction

№	Indicator	Symbol	Number of anomalous values	Correlation analysis		Check for stationary (+ - stationary; - Δ stationary in first differences)	Causal analysis (→,← -impact x → y on the number of lags)	
				Export	Import		Export	Import
	Indicators in Ukraine							
37	Inflation rate	RI	15	-0.371	-0.564	+	→3	→3
38	The interest rate on loans	IR_cred	17	-0.314	-0.492	+	-	←3
39	The interest rate on deposits	IR_depo	10	-0.690	-0.706	+	←2	→9
40	Credits	CRED	11	-0.181	-0.024	+	→1	1
41	Deposits	DEPO	12	-0.001	0.218	Δ	-	-
42	Building products index	IBP	21	-0.059	-0.012	+	-	-
43	Consumer price index	CPI	15	-0.296	-0.331	+	→1	←2
	Global indicators							
44	The world price of corn	WP_C	15	0.741	0.724	Δ	→10	→9
45	The world price of wheat	WP_W	15	0.353	0.689	+	←1	←2
46	The world price of oil «Brent»	WP_Brent	16	0.755	0.704	Δ	→10	→9
47	The world price of natural gas	WP_NG	10	0.010	-0.031	Δ	→1	-

Correlation analysis was made to determine the linear relationship between the two variables. Before the analysis was performed, the logarithms of time series were implemented to eliminate much variation, so symbol Lwas added. The results of the correlation analysis are shown in Table 1 in columns 5 and 6.

Establishing causal relationships between indicators is made by using causal analysis, which is performed only for stationary data. Check for stationary time series is made using advanced test Dickey-Fuller and Phillips-Perron, the results are shown in Table 1 column 7. We will conduct causal analysis on the base of the data received. It is examined for a variety of lags, we carry out a check for 11 months.

Such an amount of selected lags is stipulated by performing advanced Dickey-Fuller test, where automati-

cally, by using the criterion of Schwarz, 11 research lags are proposed. The results of Hreynzhera tests were summarized and presented in columns 8 and 9 of Table 1. After checking the incoming information for normality distribution and stationarity, and spending alternately correlation and causal analyses, the relevant indicators were chosen to build the VAR model assessing the impact of factors on the export and import of goods. Export VAR model of goods in Sumy region is elaborated, taking into consideration 6 lags, the application of which is explained by Akaike and Schwarz's criteria, the consideration of which will provide informativeness of the chosen model. After setting the essential evaluation criteria and the number of lags, the following equation for exports in Sumy region was obtained:

$y_t = (LExport\_G_t, LGR\_IAP_t, DLKurs\_USD_t, DLWP\_Brent_T, DLWP\_C_t, DLWTTE_t)$.

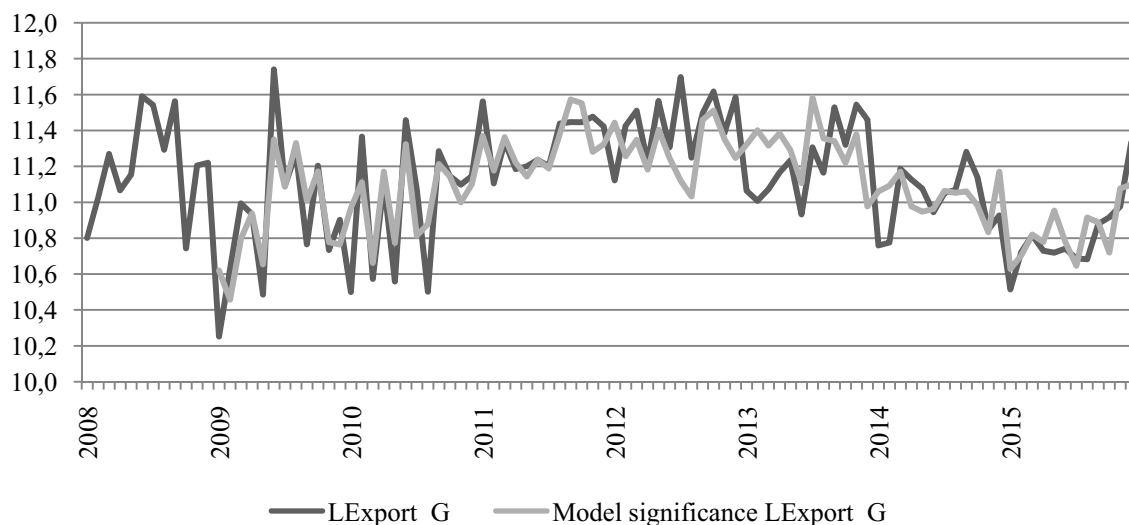Figure 4 shows the actual and calculated values for VAR model for goods export in Sumy region.

Fig. 4. Actual and estimated value for exports in Sumy region according to VAR model

According to the graph (Figure 4), we see that the calculated equation describes the actual fluctuations in exports. As one of the objectives of this study is to examine the dynamic exports properties, we will show the impulse response functions analysis. Analysis of the VAR-based model function of impulsive responses and variance decomposition was implemented in 9 months (Figure 5).
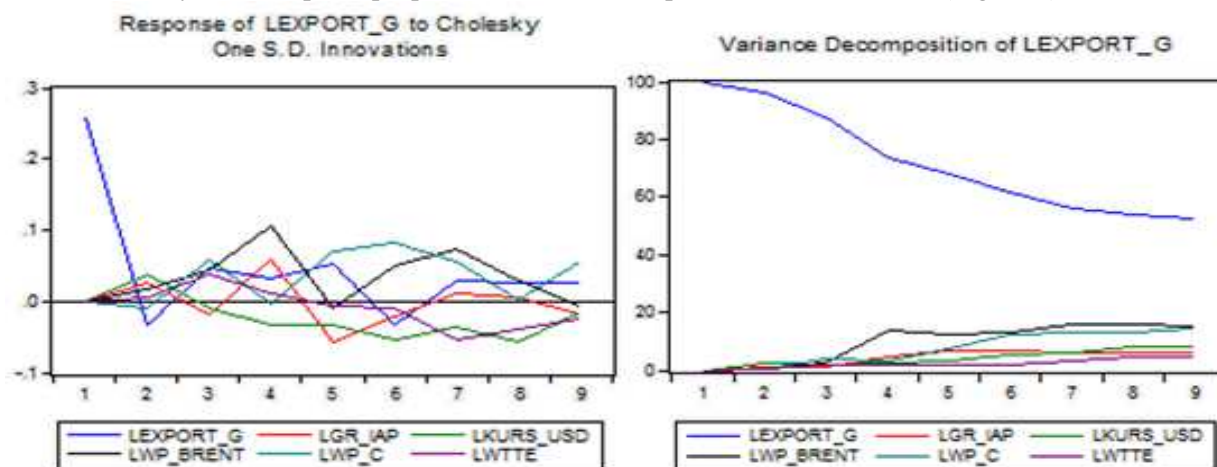

Fig. 5. The function of impulse response and the graph of decomposition exports of goods in Sumy region (LExport_G)

According to the first graph (Figure 5), we see that one standard deviation shock may have impact on goods export in the region. The growth of official hryvnia exchange rate to the US dollar, the world price of oil "Brent" and the growth rate of the index of agricultural products to 0.4% for 2 months affect the change in terms of exports, namely causing its decline to 3%. The variance decomposition graph for exports in Sumy region shows that within 4 months of fluctuations of the world price of oil "Brent" to 18% (and other indicators used in the model) make a 3-5% variation in goods exports that counts about 26% change. At the end of the 9th month, the deviation of 17% and 16% of world oil prices "Brent" and corn is observed, 10% of official hryvnia exchange rate to the US dollar, 8% growth rate of the index of agricultural production and 7% of whole sale trade enterprises, which explains the 46% changes in the dynamics of goods exports in Sumy region.

The preliminary calculations stipulate the construction of the vector of VAR-model endogenous variables for goods import in the region. The calculated numbers of Akaike and Schwartz suggest the consideration of 5 lags in the construction of equations.

$$y_t = (LImport\_G_t, LIR\_DEPO_t, DLkurs\_USD_t, DLWP\_Brent_t, DLWP\_C_t, DLWTTE_t).$$

Taking into account the resulting dependence, the LImport_G model value in comparison with actual goods import data in Sumy region was calculated (Figure 6).
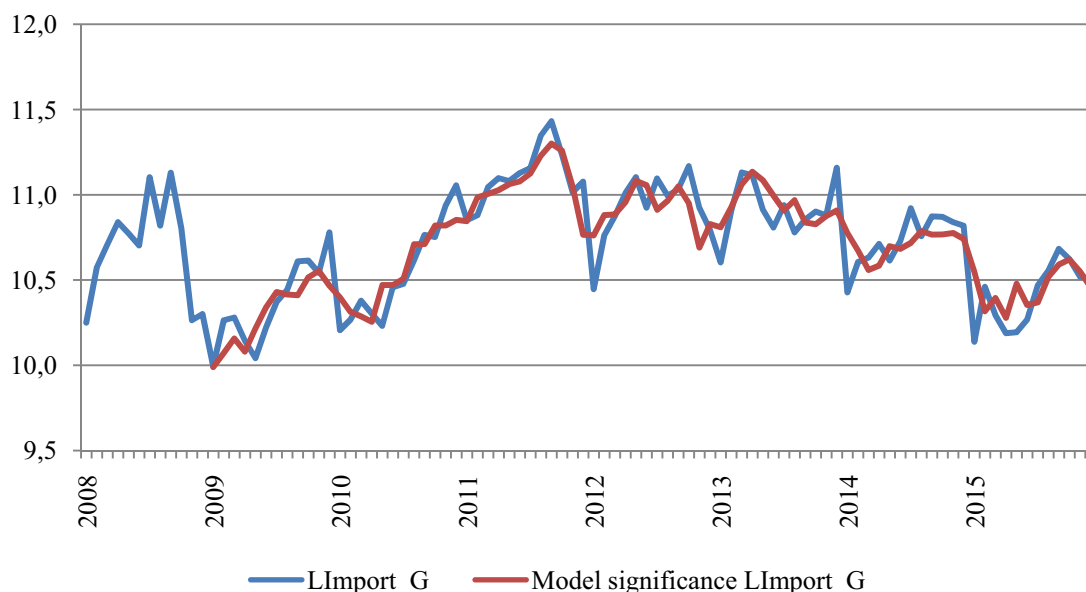

Fig. 6. Actual and calculated values according to the VAR model for goods import in Sumy region

The reliability of calculations is confirmed by the graph that compares the actual data and the calculated ones according to their VAR model described by LImport_G. It takes into account the changes that occurred during the period of investigation and have a slight deviation. The calculations review impulse responses of the function obtained and its variance decomposition (Figure 7).
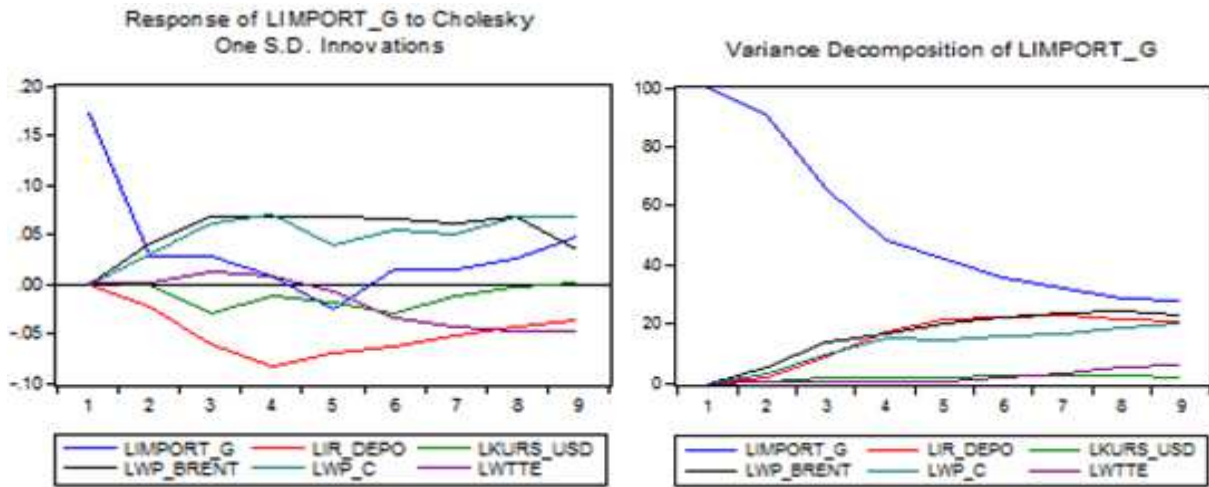

Fig. 7. The function of impulse responsesand the graph of goods import decomposition in Sumy region (LImport_G)

The presented function of impulse reviews shows that as a result of shocks (change of one standard deviation) in the world price of oil "Brent" (by 0.03%), the official hryvnia exchange rate to the US dollar (by 0.04%) and the interest rate on deposits (by -0.03%), there came a decline in goods import to 0.16% during two months. An important contribution to the change in imports (73%) during 9 months is performed by interest rate on loans (21%), the world price of oil "Brent" (22%) and the official hryvnia exchange rate to the US dollar (20%).

Conclusion

The research enables us to form 4 groups of factors according to the degree of formation, which have an impact on international trade. This approach will allow to objectively identify the possible risks and dangers to international trade that can appear at different levels of development and to quickly and accurately make effective management decisions to prevent them. To evaluate the impact of these factors, the VAR model was proposed, which presupposes the construction of 5 stages and determination of the optimal range of factors, the activity of which can have a stimulating or deterrent effect on the indicators of international trade.

In view of the the policy of power decentralization, which involves the distribution of powers of governing from central to local, we consider it appropriate to pay attention to the regions of Ukraine, as they independently will be able to accept and implement the important decisions locally. Therefore, the state of international trade in Sumy region was investigated. Following its example, we used the VAR model determining impacts of a Ukrainian region on international trade.

According to the results of the model, it was found out that the goods export in a region have a significant impact on the number of indicators, such as the index of agricultural products, wholesale trade turnover of enterprises in the region, the hryvnia exchange rate to the dollar in Ukraine, the world price of oil "Brent" and corn. The goods import, in its turn, is affected by wholesale trade enterprises in the region, the interest rate on deposits and the rate to the US dollar in Ukraine, the world price of oil "Brent" and corn.

Considering the data obtained, local authorities have the opportunity to use financial tools and levers that will stimulate impact factors on the regional level. Thus, the indirect impact on international trade in a particular region enables a flexible response to changes in economic processes of region and strengthens its competitive position in the global market. Due to this, there is an opportunity to increase the level of financial status of the region and to determine its weak and strong sides, potential danger in international trade, and to identify the existing opportunities for its development in the country.

References

1. Bannikov, V.A. (2006). Vector autoregression model and correction of the regression residuals (Eviews), *Applied Econometrics*, Issue 3, pp. 96-129.
2. Borg, Anders. (2016). 6 factors shaping the global economy in 2016, World Economic Forum. Available at: https://www.weforum.org/agenda/2015/12/6-factors-shaping-the-global-economy-in-2016/.

3. Dudchenko, V.U. (2014). Analysis of trends of post-crisis recovery of the global trade, *Problems of social and economic development of business*: *Collection of sci-entific articles*, Vol. 1. Publishing house "BREEZE", Montreal, Canada, pp. 49-55.
4. Fundamental economic factors affecting international trade. (2013). World trade report. Available at: https://www.wto.org/english/res_e/booksp_e/wtr13-2c_e.pdf.
5. Global outlook divergences and Risks. (2016). Global Economic Prospects, The World Bank. Available at: http://pubdocs.worldbank.org/en/842861463605615468/Global-Economic-Prospects-June-2016-Divergences-and-risks.pdf.
6. Izard, W. (1966). *Methods of regional analysis. Introduction to the science of the regions*. Walter Izard. M .: Progress, 660.
7. Jing Shouwu, Xia Yong, Li Zheng, (2016). Analysis on the Factors Influencing the International Technology Transfer Based on ISM Model, *International Journal of Economics and Finance*, 8 (3).
8. Kamil Pikuła. (2014). The influence of production factors transfer on the international trade with goods in diverse economic systems, Warsaw school of economics.
9. Krenz, Astrid. (2016). Do Political Institutions Influence International Trade? Measurement of Institutions and the Long-Run Effects (February 15, 2016). Center for European, Governance and Economic Development Research Discussion, Papers Number 276 - February 2016.
10. Majid M. Al-Sadoon. (2015). Testing subspace Granger causality, Economics Working Papers 1495, Department of Economics and Business, Universitat Pompeu Fabra.
11. Mamatova, N. Application of vector autoregression model for analysis in electricity consumption [Electronic resource]. Available at: http://ceur-ws.org/Vol-1197/paper21.pdf.
12. Millner, Helen V. (1999). The political economy of international trade, *Annual Review of Political Science*, 2, pp. 91-114.
13. Modest trade growth anticipated for 2014 and 2015 following two year slump [Electron resource], World Trade Organization. Available at: https://www.wto.org/english/news_e/pres14_e/pr721_e.htm.
14. Jin-Lung Lin. (2008). Notes on testing causality, Institute of Economics, Academia Sinica, National Chengchi University.
15. Olekhnovich, L.I. (ed.). (2015). Statistical Yearbook of Sumy Region. Department of Statistics in the Sumy region, 536 p.
16. Vector Autoregressive Models for Multivariate Time Series [Electronic resource]. Available at: http://link.springer.com/chapter/10.1007%2F978-0-387-32348-0_11#page-1.
17. World Trade Report. (2015). Speeding up trade: benefits and challenges of implementing the WTO Trade Facilitation Agreement. [Electronic resource]. World Trade Organization. Available at: https://www.wto.org/english/res_e/booksp_e/world_trade_report15_e.pdf.

Appendix

Country level

Legal
Perfection of the legal framework of foreign trade and its compliance with international standards, state support (quotas, credits, preferences, etc ..), a free trade policy (protectionism), the frequency changes in legislation, the level of corruption and bureaucratization of administrative procedures;

Financial and economical
The level of prices, the exchange rate to foreign inflation, credit system and insurance, banking and tax system, investment in export-oriented industries, the monopoly of the state;

Geopolitical
Belonging to the Customs Union, WTO, the level of openness;

Political
Government stability and credibility, the policy of nationalization and privatization;

Social
Low living standards, social protection.

Organizational	Management system and mechanism of development and efficient operation of the company;	
	Material	Fixed and circulating assets of production
	Informational	The data of industrial and economic activities;
Resource	Intellectual	Ability, knowledge and skills that can be used to create and to expand the potential of the enterprise;
	Technological	Technological providing of enterprise
	Financial	Cash and cash earnest;
	Labor	Employees and their qualification;
Social and psychological	Meeting the needs of staff, quality performance of their duties, a developped system of incentives and motivation.	

Enterprise level

FOREIGN TRADE TURNOVER OF REGION

Region level

Geographical	Placement of the region, proximity to markets for sale, transit potential;
Natural	Natural resources, tourist and recreational resources, natural disasters, seasonality of products;
Social and economical	The level of economic development (GDP per capita), the average income, purchasing power of population, employment and migration;
Industrial	Industry specialization, technology and energy supply of the region;
Scientific and technological	The innovative potential of the region, the presence of educational institutions and research centers;
Institutional	Region management, effective foreign policy, availability of business infrastructures.

World level

Legal
The existence of international treaties, acts and standards;

Financial and economical
Tariff and non-tariff barriers, competition, favorable investment climate, transit potential, international lending;

Historical
Long existence of market economy, adaptability to market conditions, availability of knowledge and experience in strategic management of foreign trade, globalization;

Political
Military conflicts, economic blockades, strikes, foreign economic relations state, intergovernmental agreements;

Social and psychological
Different mentalities, business stereotypes, the problem of refugees, ecological situation;

Technological
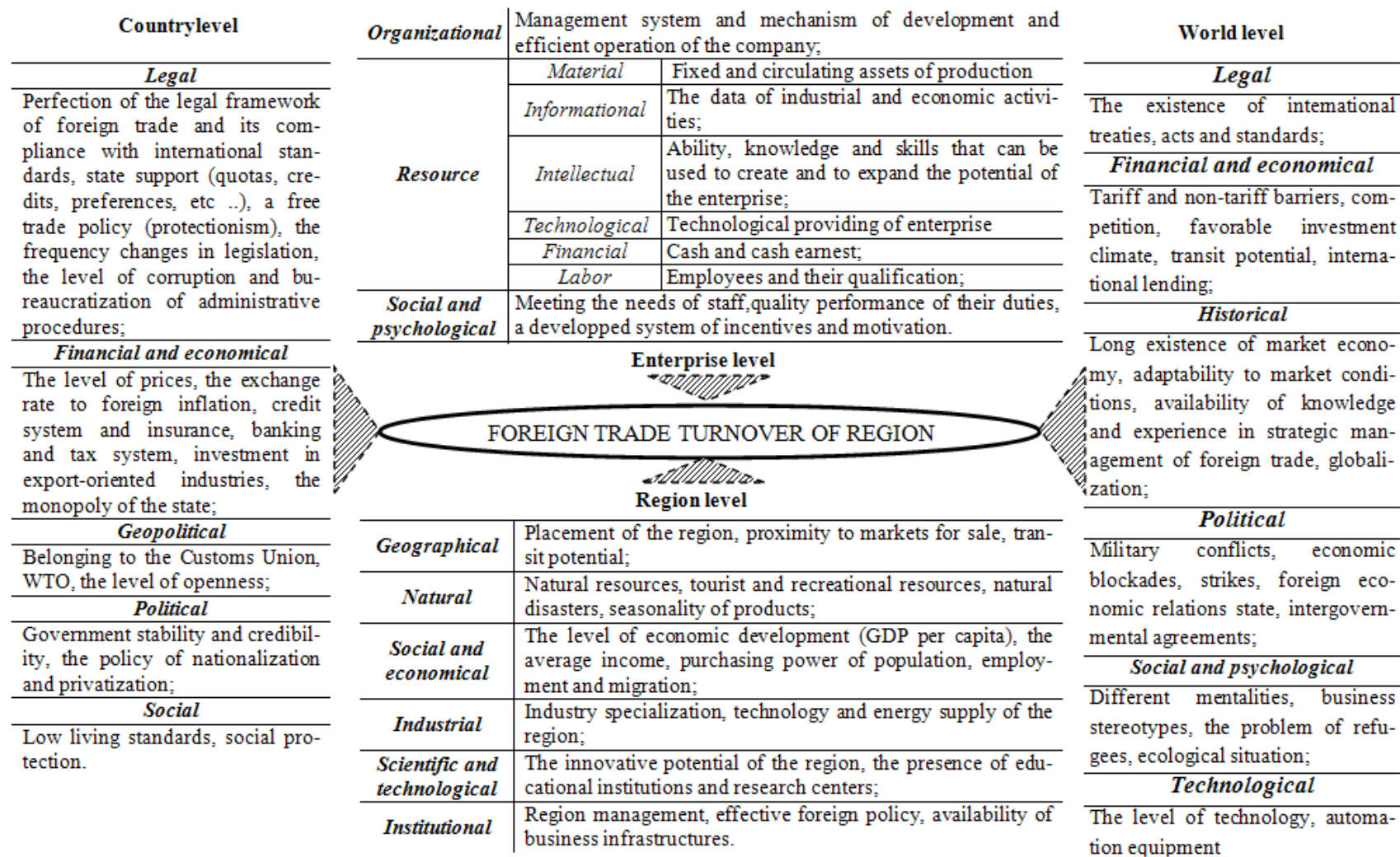The level of technology, automation equipment

Fig. 3. Factors of influence on international trade in terms of formation