Scientific Journal Warsaw University of Life Sciences – SGGW **Problems of World Agriculture volume 20 (XXXV), number 4, 2020: 29–46** DOI: 10.22630/PRS.2020.20.4.20

**Yuriy Hubeni<sup>1</sup>, Volodymyr Krupa<sup>2</sup>, Oksana Krupa<sup>3</sup>, Sofiia Tsiolkovska<sup>4</sup>** Lviv National Agrarian University, Ukraine

# The Foreign Economic Vector of Agribusiness Activity in the Western Region of Ukraine

Abstract. The article is devoted to researching peculiarities and trends of foreign economic activity of agribusinesses in the Western region of Ukraine according to the terms of the Ukraine-European Union Association Agreement. The authors discuss the theoretical essence of agribusiness, as a kind of entrepreneurship, and the nature of foreign economic activity of enterprises. The main conditions of free trade in agricultural products introduced by the terms of the Agreement are determined and their influence on agribusiness export-import operation dynamics in the Western economic region is analyzed. The contribution of certain regions to forming agrarian product export and import volume and structure is considered and the reasons for the considerable advantages of the Lviv region in foreign trade turnover of the Western region are elucidated. It was found that agribusiness cooperation with foreign partners is mainly realized by indirect methods through trade agency organizations or agrarian holding companies. The structure dynamics of production goods for export and import by agribusinesses was studied. Based on the results, some negative tendencies for the Ukrainian economy were noted. They include the preservation of raw exports with a high share of plant origin products and timber, and the predominance of ready-made products with high added value in the import structure. It was established that the Agreement and social political events in Ukraine changed the direction of some export-import flows of agribusiness from CIS countries towards the markets of the European Union and Asian countries. According to the scale of external trade operations with enterprises of the Western region of Ukraine, in general, and within certain trade groups, in particular, country-leaders are defined. Some positive and negative consequences of changes in the foreign economic activity vector are described. And finally, measures which will ensure an expansion and strengthening of Ukraine's agribusiness presence on international market, are suggested.

Key words: foreign economic activity, agribusiness, international trade, export and import of agricultural products, Western region of Ukraine

JEL Classification: F14; O19; Q17

# Introduction

Forming a chain of relationships between enterprises is an integral component of the agrarian economy sector. Such a system of relationships, embracing the entire cycle of production manufacturing – from the provision of resources by agro-producers to the processing and selling of goods to consumers, is called agribusiness.

The peculiarity of agribusiness development in Ukraine is the rapid spread of big agroindustrial enterprises that combine production, processing, logistics and sales. The activities

<sup>&</sup>lt;sup>1</sup> Dr. Scs., professor, Lviv National Agrarian University, V. Velykyi str, 1, Dubliany, Zhovkva district, Lviv region, 80381, Ukraine, e-mail: hubeni@ukr.net; https://orcid.org/0000-0002-1842-8975

<sup>&</sup>lt;sup>2</sup> PhD, associate professor, Lviv National Agrarian University, e-mail: v\_krupa@ukr.net;

https://orcid.org/0000-0001-8658-7735

<sup>&</sup>lt;sup>3</sup> PhD, associate professor, Lviv National Agrarian University, e-mail: o\_krupa@ukr.net; https://orcid.org/0000-0003-3512-6925

<sup>&</sup>lt;sup>4</sup> PhD, inspector of the Galician Customs of the State Customs Service of Ukraine, e-mail: Sophia-04.02@ukr.net; https://orcid.org/0000-0002-7515-1474

of many enterprises are focused not only on the domestic market, but directly on the export market, as well. They also often act as trade intermediaries for other manufacturers who have not managed to organize international cooperation for themselves. Some holding companies which import agricultural products for their own production needs, also distribute them around the territory of Ukraine.

The foreign economic vector of agribusiness activity in Ukraine is characterized by a number of peculiarities and tendencies that determine key aspects of the agrarian production structure, and considerably influence food security, levels of competition between branches, the direction of investment streams, and other economic processes in the country. Regional factors play a special role in influencing foreign economic activity, and are connected with market place, main transport routes and other elements of international trade infrastructure. Regional factors determine the level of concentration of agro-business enterprises, their production specializations, and their strategic and tactical planning. This shows that there is a need to clarify the stream of foreign economic activity for Ukrainian agribusinesses under present conditions, and to identify regularities in how export-import operations are carried out and the conditions necessary to expand their presence on international markets. There is also a need to solve problems in the organizational structure of production for agricultural exports and imports.

The purpose of this research is to study the peculiarities of the foreign economic activity of Ukrainian agribusinesses and to elaborate approaches that would help to intensify this activity.

The main tasks of the research are as follows:

- To study the prerequisites, and the stimulating and inhibitory factors of foreign economic activity development;
- To analyze the volume and structure of export-import operations of agribusinesses at a regional level;
- To define means and methods for domestic agribusinesses to enter the international market.

# **Materials and Methods**

The analysis of foreign economic activity of agribusinesses was conducted on the basis of enterprises in the Western region of Ukraine. Historically and geographically, it is composed of seven regions: Lviv, Volyn, Transcarpathian, Ternopil, Ivano-Frankivsk, Rivne, Chernivtsi (Vermenych, 2005). However, authoritative scientists (Bashtannyk, 2000; Shablii, 1995) also recently tend to include an eighth region, Khmelnytsk, in this list. Therefore, Western Ukraine, as a separate macro-region, is presented in our research as consisting of eight regions.

The database that was compiled for foreign economic agribusiness activity is based on official statistics from the Main Statistics departments in these regions, the State Statistics Service of Ukraine, and from the authors' own research materials.

The scale of foreign economic agribusiness activity in the Western region of Ukraine depends on logistic cooperation within the entire production chain. Each region, due to its specific natural economic conditions and to the set of enterprise branches that are available – as objects of foreign economic activity – directly or indirectly formulates the commodity structure of international trade in the region and the country.

Substantiating the export-import structure of agribusiness commodities, we first considered the commodity groups and types established by the nomenclature of statistics for foreign economic activity. The commodity structure first of all included agriculture branches (crop production, animal production, fish farming) and its processing products (finished food industry products). According to economic activity classification, forestry is added to agriculture. Therefore, timber and wood products and also paper bulk from wood or other vegetable fibres were included in the foreign trade commodity structure. In addition, the separate groups and types of products of other activities from within the agribusiness food chain component, were taken into consideration. They are, specifically, chemical industry products (fertilizers, essential oils, albuments), raw leather and cured leather, natural textile materials (wool, cotton).

General scientific methods of economic research formed the basis of our research, including the economic, political and social factors that ensure the conditions for agribusiness enterprises to function in Ukraine and to enter the international market. The methods of induction and deduction, analysis and synthesis, comparison, average and relative values, visual-graphic ones were widely used in the research. These methods enabled us to study the present situation and the results of foreign economic relations of agribusinesses in the Western region of Ukraine, to systematize statistical information on export-import volume within separate regions and agrarian production groups, and to establish cause-and-effect relationships between changes in foreign economic activity and social economic processes in the country.

With the help of absolute and relative indicators and by using the comparison method for export-import production value dynamics and commodity flow direction and intensity, other quantitative and qualitative changes in foreign economic activity of the analyzed subject group are also described. The received data formed the basis of recommendations concerning improvements in the strategic orientation of foreign economic agribusiness activity and for minimizing the economic risks connected with it.

Considering the great amount of information on production export-import volume and direction, in the framework of the present research objective, the set of statistical data was reduced, and the most essential data needed for the study was selected and aggregated. This allowed us to highlight the key foreign economic agribusiness results out of the general data, correct their assessment, and formulate conclusions about the development of corresponding phenomena.

Assessing agribusiness foreign activity at the regional level and comparing exportimport correlations was done using differentiation coefficients. They are as follows: the export/import comparative advantage index, the foreign trade coverage ratio, export concentration index, Grubel-Lloyd index. These indicators enabled us to better characterize the specializations of agribusiness foreign activity in the Western area of Ukraine, to estimate their significance in the export-import structure, and to find any disproportion in foreign trade in agrarian products.

#### **Literature Review**

The term "agribusiness", established long ago in more developed countries, has only recently come into use in Ukrainian economic science and practice. Therefore, the scientific study of agribusiness, as a particular sphere of research, is still developing. Accordingly, interpreting the essence of agribusiness in Ukraine is rather ambiguous. National scientists often identify this term with agrarian entrepreneurship in the sphere of production, processing and realization of agricultural goods (Buhil, 2004), or with the notion of the "agro-industrial complex" (Abramovych, 2011). For all that, agriculture is considered a central link of the agribusiness system. Such an understanding of this category follows from the general concept of agribusiness formulated by American scientists G. Davis and R. Goldberg. They defined it as: the total amount of all operations connected with supply production and distribution; production operations at an agrarian enterprise; storage, processing and distribution of agricultural goods and products from them (Davis, Goldberg, 1957). According to these researchers, agro-business embraces the functions that are traditional for agriculture.

At the same time, the encyclopedia Britannica interprets "agribusiness" as a part of modern national economics, aimed at producing, processing and distributing food, fiber and by-products. It is also mentioned that many types of activity necessary for agriculture are carried out separately from agro-enterprises, especially developing and producing equipment, fertilizers and seeds; in some countries processing, warehousing, storage and delivery are also separated from main agriculture (Agribusiness, 1998).

Certainly, with the development of market relations, agriculture evolved from a means of providing the population with food into a rather profitable kind of entrepreneurial activity. Deepening the division of labour led to its separation from other branches. However, due to its fundamental role in food production, "agribusiness" has become the key link in the interrelated system between enterprises.

There is an oft-made comparison between agribusiness and the agro-industrial complex (AIC), though "agro-industrial complex" is wider in structure than "agribusiness" (Hubeni, Tsiolkovska, 2019). AIC includes a set of enterprises of specialized industrial branches, agriculture, agrarian product processing, services and departmental state administration bodies. According to Yu Hubeni, agribusiness is not a simple set of entrepreneurship subjects, but a peculiar type of partner relations, of cooperation organization that creates favourable conditions for participants. Agribusiness is functionally a new type of economic relations for agrarian market participants, characterized by cooperation and mutual support, considering the economic interests of all "food chain" participants (Hubeni, 2012). M. Shelman gives an analogical interpretation of agro-business as an interconnected and interdependent raw and food movement chain, beginning from supplying an enterprise with material and technical means and ending with the last consumer (Shelman, 1991).

From the viewpoints of Yu Hubeni and S. Tsiolkovska, it is expedient to distinguish several functioning levels in the agribusiness system: local, regional, national and international (Hubeni, Tsiolkovska, 2019). Such a division reflects the territorial and geographical involvement of agribusiness relationships and the scope of its chain of participants.

In our research the combination of two agribusiness expansion levels is considered – regional (within several regions due to determined geographical features) and international (based on foreign economic cooperation of enterprises with foreign partners – relationship system participants). Along with this, primary attention was given to the international level, particularly to the peculiarities and orientation of foreign economic activity from enterprises in the Western region of Ukraine, their search for new segments in the international agro-food market and ways to strengthen their positions in those segments,

expand their range of business-partners and consumers, and gain additional competitive advantages.

Foreign economic agribusiness activity is a way that enterprises realize their foreign economic relations. Based on legislation in Ukraine, foreign economic activity is between Ukrainian and foreign firms, built on relationships between them both within and beyond the territory of Ukraine (Law of Ukraine, 1991). According to I. Kaytanskyi, foreign economic activity (FEA) is an activity of FEA subjects of Ukraine and FEA subjects of other countries, occurring in the process of producing, realizing, distributing and consuming products on the basis of mutual benefit for all participants (Kaytanskyi, 2010).

Foreign economic agribusiness activity includes functions connected with ensuring their entrance to the international market and with participation in foreign trade operations. As a separate part of enterprise activity, foreign economic activity is at the same time a component of their economic system, which is conducted at the international level and stipulates relationships with foreign economic subjects.

Forming the foreign economic agribusiness activity vector and its strategies must be aimed first of all at developing new markets, maximizing economic effects, liberalizing economic relations and ensuring the ability to meet the requirements of the international market or of an individual country where economic relationships take place.

#### Results

From a territorial point of view the Western region is the largest area of Ukraine. It occupies 131,3 thousand square kilometers (21,7% of Ukraine's territory), its population makes up 10,5 million people (25,1% of the total number). Along with this, the region's share in forming GDP made up 16,4% in 2018. The Western region has exact agrarian specialization: in 2019 it provided 21,9% of agricultural production and only 14,0% of industrial production of the country. It accounted for 14,1% of commodity exports and 13,8% of imports, and 14,9% of capital investments.

In spite of relatively low economic indicators, the Western region plays a special role in the system of foreign economic relations in Ukraine. Its geopolitical situation, transport and customs infrastructure and a number of other important factors form favourable conditions for Ukraine to join various European economic, social and political structures. Thus, the region has common borders with four countries of the European Union: Poland, Hungary, Slovakia and Romania. It also borders on Belarus and Moldova. Cargo turnover with EU countries is carried out through 23 international checkpoints (11 automobile and 12 railway checkpoints).

Implementing the Agreement on association between Ukraine and the EU opened new possibilities for developing Ukrainian foreign economic agribusiness activity. In 2016 foreign economic processes became more active, as the regime of a deep and universal zone of free trade with the EU began to operate and import duties in the EU on 82,2% of agricultural products and 83,4% of foodstuffs were abolished. It was possible to sell live animals, fish, cheese, nuts, most fruit and oil crops, and confectionery duty-free. The EU also set duty-free tariff quotas for 36 kinds of agricultural and food products of the so-called group of "sensitive goods". They are: beef, pork, lamb, poultry, milk, cream, yogurt, butter, cereals, bran, honey, sugar, starch, mushrooms, garlic, malt, grape and apple juices,

cigarettes, ethanol and others. Along with this, Ukraine set quotas for three kinds of sensitive goods (pork, poultry, sugar).

Due to the free trade zone regime, the tariffs on Ukrainian exports to the EU decreased from 19,8% to 0,6% in groups of agricultural raw products, and from 3,9% to 0,5% in groups of processed products. The procedures for export operations while passing customs, phyto-sanitary and other controls was simplified. Ukrainian companies got the opportunity to provide services to European consumers and to open subsidiaries in the EU. Receiving permission for export to the EU simplified Ukrainian producers' access to third-country markets. It is interesting also to note that within the framework of tariff liberalization, the European Union refused to apply export subsidies on agricultural commodities in the trade with Ukraine.

The Agreement on association considerably influences first of all the product export dynamics of agribusiness enterprises of the Western region (Figure 1). In total, during the period of 2014-2019 agrarian product exports increased by 48,9%, imports – by 31,6%. Some decline in foreign trade turnover of agrarian products in 2015 was noticed as a consequence of the crisis caused by social and political events in Ukraine at that time. These events also caused considerable changes in the foreign economic relationship vector of agribusinesses and started a new stage in their development.

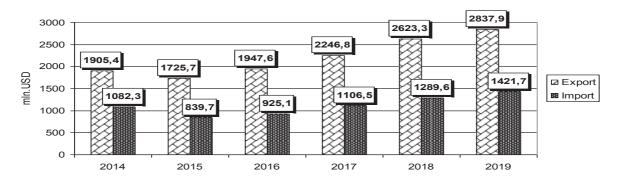
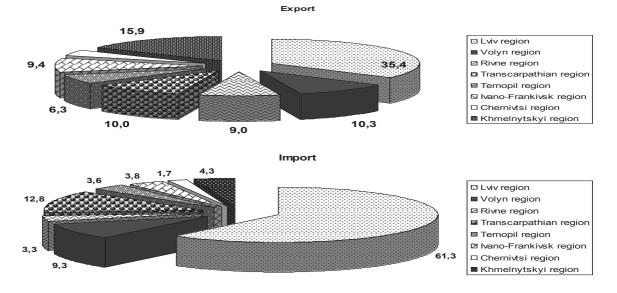


Figure 1. Dynamics of production export and import by agribusinesses of the Western region of Ukraine, mln. USD

Source: State Statistics Service of Ukraine.

In 2019 the share of agribusiness production in the Western region of Ukraine made up 40,4% of the total exports, which is 4,6 points more than in 2014. The corresponding share of agrarian production imports during the analyzed period didn't change and made up 16,8%. It proves that there is an increase in the role of agribusiness in foreign economic activity of the region and a strengthening in national producers' position on international markets.

In the Western region of Ukraine, the Lviv region plays the leading role on exportimport operation volume (Figure 2). In 2019 the share of agribusiness production exports amounted to 35,4%, imports – 61,3%. Such a great difference in this region from other regions is caused by several factors: the high economic potential of Lviv region, its convenient geographic position (at the crossing of main transport flows), the availability of a developed customs infrastructure (transport, logistics, distribution companies), and the use of indirect methods of conducting foreign trade by most Ukrainian agricultural commodity producers. In 2018, only 311 companies in Ukraine had the right to export products to EU countries; in 2019 that number was 333. A considerable number of those enterprises are both producers and exporters (importers); others perform only tradeintermediary functions. The facilities of most companies are located in direct proximity to customs terminals and logistics bases. The presence of foreign economic infrastructure and development also partly influences the production concentration of export commodities.



**Figure 2**. The share of regions in total export-import production structure of agribusiness enterprises in the Western region of Ukraine, 2019 (%)

Source: State Statistics Service of Ukraine.

The indirect method of conducting foreign trade enables agricultural export-oriented enterprises to focus on solving organizational and technological production problems and to facilitate sales activity. Trade intermediary firms perform all the processes connected with commodity transporting, storage and packing, forming optimal commodity consignments, documentation, passing customs procedures, and adapting to the requirements of an importer's country of origin. They usually have their own material and technical base, stable business relations with foreign partners and financial companies, established market channels, open access to certain commodity markets, and the ability to provide proper informational sales support.

Agribusiness enterprises of the Khmelnytskyi region take second place in production export structure with a share of 15,9%. Their export potential is based on agricultural raw materials and foodstuffs – which is 22,8% of its sales within the Western region. Such results are provided by several of the biggest agro-holding companies in Ukraine (Kernel, EpicentrK, Continental Farmers Group) and also rather favorable natural conditions for growing crops.

As far as import flows are concerned, besides the Lviv region the bulk of foodstuff imports go through agribusiness enterprises of the Transcarpathian (12,8%) and Volyn (9,3%) regions. The factors of geographic position and customs checkpoint capacity again play a considerable role.

# 36 Y. Hubeni, V. Krupa, O. Krupa, S. Tsiolkovska

In the structure of production exports by agribusinesses in the Western region of Ukraine, the share of agricultural production increased by 13,9 points during the analyzed six-year period and amounted to 67,2% in 2019 (Table 1).

Product groups	2014	2015	2016	2017	2018	2019	Difference (+; -)		
Export									
I. Live animals and livestock products	9,9	10,6	7,9	8,8	7,7	7,7	-2,2		
II. Plant products	27,4	31,8	32,5	33,5	36,2	40,4	+13,0		
III. Animal or plant fats and oils	3,9	7,1	8,8	6,7	5,7	8,0	+4,1		
IV. Finished food industry products	12,2	10,4	11,3	12,0	11,1	11,1	-1,1		
Total agricultural products	53,3	59,8	60,5	61,1	60,8	67,2	+13,9		
VIII. Raw leather and cured leather	4,5	4,2	4,2	4,3	4,0	3,2	-1,3		
IX. Wood and articles of wood	31,3	28,6	30,6	29,5	30,3	25,7	-5,6		
X. Paper bulk from wood or other vegetable fibres	5,9	4,0	3,1	3,3	3,4	2,6	-3,3		
Other products	5,0	3,4	1,6	1,8	1,5	1,3	-3,7		
Total products of agribusiness enterprises	100,0	100,0	100,0	100,0	100,0	100,0	×		
	Impor	t							
I. Live animals and livestock products	13,2	10,7	11,2	12,4	14,3	13,5	+0,3		
II. Plant products	17,1	17,4	18,1	15,6	15,6	22,1	+5,0		
III. Animal or plant fats and oils	0,5	0,8	0,9	0,4	0,4	0,7	+0,2		
IV. Finished food industry products	21,8	20,6	18,9	20,8	22,9	22,2	+0,4		
Total agricultural products	52,6	49,6	49,1	49,1	53,3	58,5	+5,9		
VIII. Raw leather and cured leather	7,3	9,1	11,2	12,6	11,6	9,7	+2,4		
IX. Wood and articles of wood	5,3	4,9	6,3	6,7	6,2	5,8	+0,5		
X. Paper bulk from wood or other vegetable fibres	17,3	15,7	15,0	13,9	14,4	11,6	-5,7		
Other products	17,6	20,7	18,4	17,7	14,5	14,4	-3,2		
Total products of agribusiness enterprises	100,0	100,0	100,0	100,0	100,0	100,0	×		

Table 1. Structural dynamics of	production export and impor	t by agribusinesses in the	Western region of Ukraine

Source: State Statistics Service of Ukraine.

There is a natural tendency to see increases in exports of crop production, especially for grain and oilseeds. This is caused by growth in global food market conditions and a considerable increase in production for these kinds of goods in Ukraine. But the share of live animals and livestock products is decreasing, as a result of reductions in production and many obstacles in the path for such products to access international markets. During the analyzed six-year period, the share of finished food industry product exports remained relatively stable. The Western region of Ukraine maintained its position on the market of animal or plant fats and oils.

The indicators for exports of wood and wood products from the Western region of Ukraine are consistently high. From 2014 to 2019, its export value increased from 596,1 to 728,9 thousand USD. For all that, timber makes up 11-13% of total region export value, and 26-31% of agribusiness production value. It is worth mentioning that in 2019 the

Western region's share in total Ukrainian national timber export amounted to 42,6%. The main export flows go to EU countries, in particular: Poland, Hungary, Germany and Romania. The agribusiness export share of cellulose materials, and also other kinds of products, for example, essential oils, proteins, wool, and fertilizers is steadily decreasing.

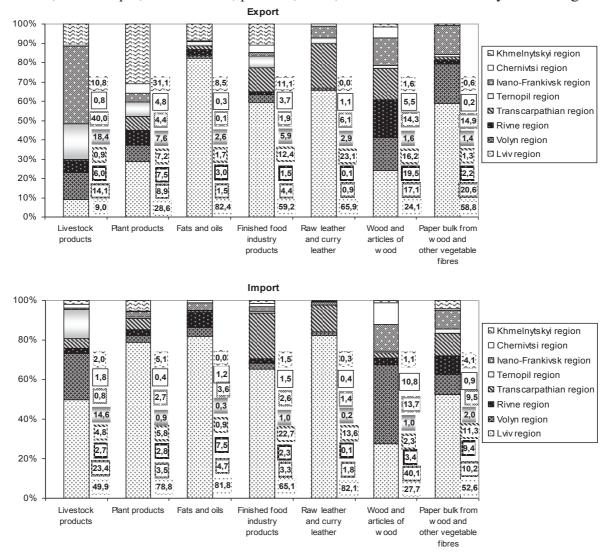


Figure 3. The share of regions of the Western region of Ukraine in the export and import according to main groups of agro-industrial products, 2019.

Source: State Statistics Service of Ukraine.

The tendencies described show the mainly raw export character of Ukrainian agribusiness enterprises, and this situation hasn't changed for many years. It influences negatively on Ukraine's balance of payments and the long-term development perspectives of its agro-industrial complex. Instead, finished products with considerably higher added value are imported into Ukraine. Thus, during the period under review the share of finished food industry products in the Western region's import value ranged from 18,9% to 22,9%. The share of animal and plant production imports is also rather high. Reducing the share of importing vegetable fibres and some other kinds of agricultural products is a positive tendency.

As far as distribution of some production flows within the Western region is concerned, 72,5% of animal product exports is provided by enterprises of the Ivano-Frankivsk, Ternopil and Volyn regions (Figure 3).

Almost a third of plant product exports belong to the Khmelnytskyi region, and 28,6% – to the Lviv region. Lviv region enterprises dominate in providing for export animal and plant fats and oils (82,4%); finished food industry products (59,2%), raw leather (65,9%) and paper bulk and other vegetable fibres (58,8%). This is the result of a high concentration of industrial facilities for processing agrarian products in the region.

It is quite understandable that exports of wood and wood products are centered around regions of the Carpathian area (Lviv, Transcarpathian and Ivano-Frankivsk regions) and Polissia (Rivne and Volyn regions), where the bulk of the country's forests are located. However, due to the presence of several enterprises that produce furniture, fiberboards and other wood products in the Lviv region (including those built with the help of foreign partners), its share in national export value is also the highest -24,1%.

Product groups		2015	2016	2017	2018	2019	Difference (+; -)		
Share in the total exports of Ukraine									
Live animals and livestock products	18,6	22,3	19,8	17,8	16,7	17,1	-1,5		
Plant products	6,0	6,9	7,8	8,2	9,6	8,9	2,9		
Animal or plant fats and oils	1,9	3,7	4,3	3,3	3,3	4,8	2,9		
Finished food industry products	7,5	7,2	8,9	9,6	9,7	9,8	2,3		
Raw leather and cured leather	54,3	63,0	66,5	63,3	63,2	60,9	6,6		
Wood and articles of wood	47,2	44,6	52,7	54,9	53,2	52,1	4,9		
Paper bulk from wood or other vegetable fibres	11,4	11,1	11,1	14,2	16,2	17,1	5,7		
Share in the	total im	ports of	Ukrain	e					
Live animals and livestock products	12,7	16,4	16,5	18,8	20,1	17,9	5,2		
Plant products	9,1	12,8	13,1	12,7	13,2	17,5	8,4		
Animal or plant fats and oils	1,7	3,6	3,4	1,9	1,9	3,8	2,1		
Finished food industry products	9,1	10,8	10,1	12,0	12,6	12,0	2,9		
Raw leather and cured leather	35,4	45,6	49,7	55,8	52,3	48,6	13,2		
Wood and articles of wood	19,6	27,7	29,4	29,6	26,2	26,7	7,1		
Paper bulk from wood or other vegetable fibres	14,5	15,0	15,2	16,3	17,1	16,5	2,0		

**Table 2.** The share of the Western region in total Ukrainian export and import value according to main groups of agro-industrial products

Source: State Statistics Service of Ukraine.

On the whole, the Western region's share in timber exports made up 52,1% in 2019, which is 4,9 points higher in comparison with 2014. The Western region of Ukraine also plays a key role in leather and leather product turnover. Regional enterprises provide 60,9% of exports and bring in 48,6% of imports. At the same time, the specific weight of agribusinesses within the nationwide structure of Ukrainian exports of crop production, oil and finished food products is relatively small. However, as seen in Table 2, the role of the Western region of Ukraine in forming agrarian export and import flows for Ukraine has

increased considerably, which proves again the positive influence of the Ukraine-EU Agreement on the development of foreign activity for agribusinesses.

Accepting the Agreement on association with the EU, as well as the political and economic confrontation with Russia over the Donbas annexation in Crimea changed considerably the direction of export flows of the Western region of Ukraine (Figure 4).

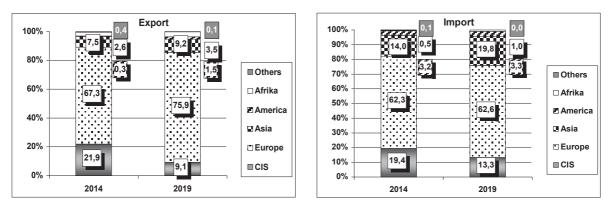


Figure 4. Geographic structure of exports and imports of the Western region of Ukraine

Source: State Statistics Service of Ukraine.

Until 2014, 21,4% of the Western region's exports went to Commonwealth of Independent States (CIS) countries, while 14,3% went to Russia. In 2019, the export share to the countries of this bloc decreased to 9,1%. Instead, the export value share in EU countries for this period increased from 67,3% to 75,9%. As mentioned above, the Agreement on association made Ukraine's access to third-country markets easier. Owing to this, export share to Asian countries increased by 1,7 points, to America – 1,2 points, and to Africa – 0,9 points.

The level of agribusiness export activity to EU countries is the highest in comparison with enterprises of other branches. At the same time, the export share to Russia and countries of the Eurasian Economic Union – one of the lowest.

Along with this, the import structure did not change too much. The import value share from CIS countries decreased by 6,1 points, while the import value share from Asian countries increased by 5,8 points. The share of imports from Europe and America actually remained at the same level.

In terms of individual countries, the main foreign economic activity vector of agribusinesses in the Western region of Ukraine is connected mostly with Poland. During the 2014-2019 period, commodity export value to Poland increased by 46%, and the share in its structure ranged from 15,5% to 17,3%. The import value Poland makes up about 15%. In 2014, Russia was Ukraine's second largest export country. But this sharply decreased in significance due to a number of government restrictions and increasing resistance to trade with Russia from Ukrainian society. In 2019, Russia took only the 10<sup>th</sup> position in exports, which fell from 762,1 to 174,5 million USD in six years. However, Russia continues to keep its positions for commodity imports. But, according to the results of a survey conducted among Ukrainian importers by a public organization called the Institute of Economic Research and Political Situations, agricultural enterprises don't in practice import raw materials and supplies from Russia (Simplification of Trade

Procedures, 2019). However, certain types of agrarian products are imported through companies in Belarus.

Commodity groups		Export	Import			
	thous. USD.	Share of leading export countries (%)	thous. USD	Share of leading import countries (%)		
Meat and meat preparations	10561,2	Georgia (27,7), Vietnam (20,2), Azerbaijan (10,0).	35986,9	Poland (55,8), France (7,6), Germany (7,1)		
Fish and crustacea	268,0	Lithuania (98,9), France (1,1)	30712,3	Norway (23,5); Island (18,6); Great Britain (16,0)		
Milk and milk products; eggs; honey	2812,4	Moldova (34,0); Poland (15,9); Denmark (12,4)	14931,1	Poland (55,8); Germany (26,7); Netherlands (8,9)		
Other animal products	5822,4	Poland (46,8); Ghana (14,6); Vietnam (14,6)	2538,5	Poland (78,7); Brazil (14,9); Germany (6,2)		
Seedlings and other trees	1236,9	Poland (56,2); Georgia (37,5); Germany (6,3)	4543,8	Netherlands (63,3); Poland (13,7); Ecuador (7,6)		
Vegetables	2628,7	Spain (42,9); Poland (19,2); Belarus (16,6)	62758,2	Turkey (36,2); Poland (18,6); Netherlands (11,9)		
Eatable fruits and nuts	16330,6	Poland (26,9); Lithuania (21,6); Italy (12,9)	142699,2	Spain (17,4); Turkey (15,3); Ecuador (13,6)		
Coffee, tea, spices	387,8	Belarus (39,5); Poland (24,2); Turkey (10,0)	30301,4	Poland (23,4); India (14,3); Brazil (14,0)		
Cereals	214458,2	EU (19,6); Egypt (16,5); China (7,2)	166,6	Pakistan (64,5), India (14,3); Italy (10,8)		
Oil seeds and fruits	91900,5	Belgium (17,3); Netherlands (16,0); France (15,9)	3860,2	Poland (34,9); Germany (17,1); Belarus (11,7)		
Animal or plant fats and oils	186211,1	Poland (27,4); India (27,3); China (8,8)	7876,8	Sweden (61,1); Malaysia (14,7); Belgium (8,2)		
Sugar and sugar confectionery	34862,1	Azerbaijan (21,3); Great Britain (13,4); Russia (11,2)	3791,6	Poland (38,7); Austria (22,0); Spain (9,1)		
Preparations of grain, flour, milk	15953,2	Romania (36,2); Poland (27,5); Hungary (11,0)	9151,6	Poland (58,6); Italy (17,0); Spain (9,3)		
Products of vegetable, fruit and nut processing	39906,9	USA (62,4); Poland (17,2); Canada (16,1)	8877,5	Poland (38,8); China (16,9); Bulgaria (11,3)		
Other mixed foodstuffs	15347,3	Poland (23,9); Bulgaria (16,6); Czech Republic (9,8)	39988,6	Switzerland (29,7); Spain (23,7); Poland (12,9)		
Remains and waste of food industry, feed	61464,9	Poland (24,8); Belarus (23,4); Israel (7,6)	39880,5	Poland (37,2); Germany (20,8) Denmark (16,7)		
Fertilizers	148,6	Spain (41,9), Moldova (23,8), Poland (12,7)	46935,1	Poland (49,3); Russia (33,1), Belarus (10,6)		
Wood and wood products	175205,0	Poland (27,8); Austria (13,0); Germany (6,9)	22508,1	Poland (37,6); Belarus (20,4); Romania (12,9)		
Raw leather and cured leather	47663,5	Poland (94,6); Italy (3,6)	103884,5	Poland (60,2); South Africa (25,8)		

**Table 3.** Key directions of production exports and imports by agribusiness enterprises of the Lviv region according to main commodity groups, 2019

Source: Main Statistic office in Lviv region.

As for countries in Asia and Africa, mostly China, India, Turkey, Saudi Arabia and Egypt have opened their markets for Ukrainian agrarian products. Among post-Soviet countries, Belarus also remains a strategic partner of the Western region in the agribusiness sphere. But its role, as also of other countries of the so called "Eurasian Economic Union" has recently significantly decreased.

Agrarian export and import structure, unlike general economic tendencies, has a slightly different direction. The data of the Lviv region, where the level of foreign economic agribusiness activity is the highest, gives some idea of this difference (Table 3). The Table 3 data affirm the dominant role of Poland in trade relations with enterprises of the Western region of Ukraine. The main export flows of plant and animal fats, eatable fruits and nuts, other mixed foodstuff, food industry waste, raw and cured leather are directed to Poland. At the same time, Poland is also the leader in terms of volume in supplying meat, dairy and other animal products; preparations of grain, flour and milk; leather and leather products (over 50% of the total import value); animal feed; wood products; and fertilizers to the Lviv region.

As far as grain – the main product of agrarian exports in the Lviv region – is concerned, it is necessary to note that the EU market is of secondary importance for its sale. In 2019, the European share of grain amounted only to 19,6% of its total export value. Instead, 38,4% of grain was exported to Asia (main purchasers – China, Indonesia, Saudi Arabia, Turkey), 36,4% of grain was sold to African countries (mostly to Egypt – 16,5%). On the European market, Ukrainian grain is not competitive enough due to qualitative parameters.

But timber and oil seeds are in great demand on the European market due to high ecological standards. Almost 62% of industrial crop production exports from the Lviv region go to four countries (Belgium, Netherlands, France and Germany), where it is used as a raw material for producing bio-ethanol. For agro-enterprises of the Lviv region, China and India are an important fats and vegetable oils market (36,1% of export value). These countries have also actively expanded purchases of other kinds of production. CIS markets mostly purchase sugar and confectionery; the North American market mainly purchases processed vegetables, fruits and nuts.

Indicator	2014	2015	2016	2017	2018	2019	Difference (+; -)
Exports comparative advantage index	0,96	0,86	0,86	0,85	0,86	0,82	-0,14
Imports comparative advantage index	1,00	1,07	1,00	1,06	1,09	1,06	+0,06
Foreign trade coverage ratio	1,76	2,06	2,11	2,03	2,03	2,00	+0,24
Export concentration index	0,348	0,322	0,288	0,308	0,301	0,281	-0,067
Grubel-Lloyd's index	72,45	65,46	64,41	65,99	65,92	66,75	-5,70

Table 4. Indicators of foreign economic activity evaluation of agribusinesses in the Western region of Ukraine

Source: calculated by the authors on data from State Statistics Service of Ukraine.

As for agrarian production imports to the Lviv region, they come mainly from EU countries. Vegetable imports are an exception, as Turkey is in the lead (36,2%). The share of Turkey and Latin-American countries (Ecuador, Costa Rica) in the fruit market is also significant. In addition, countries of Latin America and Asia supply the main share of tea

and coffee imports. The significant role of CIS countries (Russia and Belarus, in particular) in supplying fertilizers should also be mentioned (43,6% of imports).

An estimation of agribusiness foreign activity results using differentiation factors shows comparative advantages in agrarian production imports (Table 4).

At the same time, production exports by agribusinesses at the regional level have no advantages in comparison with agricultural production exports of Ukraine. In addition, the export comparative advantage index in 2019 decreased by 0,14 points compared to 2014. Against a background of agrarian production increase in scale, it proves that a lot of Western region enterprises fail to realize their export potential and limit themselves to meeting home demand for food. This is partly due to the peculiarity of production specializations of agribusinesses in the Western region of Ukraine, especially a lower volume of producing the main export product – grain – in comparison with other regions.

During 2014-2016, a positive dynamic of the foreign trade coverage ratio was observed. In the following years this index somewhat decreased, but the value of agribusiness production exports was twice as high as that of imports. Taking the export orientation of agrarian production in Ukraine into consideration, the probability of keeping the mentioned proportion in the near future is rather high.

Commodity export concentration is an important indicator of regional foreign activity commodity specialization. Changes in foreign trade structure because of international competition on foreign markets influences a region's export concentration and directly affects the expected export income of agrarian enterprises (Vitko, 2017).

The export concentration index meaning that is received after estimation proves the relatively narrow structure of agribusiness production exports. The bulk of exports include some key products (grain, oil seeds, milk products, oil, edible fruit and nuts, wood and wood products). Along with this, a lot of commodity positions are not competitive enough, so they are promoted in foreign markets with difficulty (or are displaced from them). However, considerable reduction of the export concentration index for the last few years is a positive phenomenon, which proves the range of expansion of the products exported by agribusinesses in the Western region of Ukraine.

The Grubel-Lloyd factor is one more indicator of the level of foreign activity development for enterprises. It enables to estimate the balance of inter-branch trade in mentioned goods, services or commodity groups. The dynamics of this factor aimed mainly at agribusiness production in the Western region of Ukraine, proves some reduction of inter-branch trade. But, in spite of this, for the agrarian branch the G-L factor value remains higher than an average level.

This index analysis in terms of individual agrarian production groups shows that in 2019 commodities with the highest value of Grubel-Lloyd included finished food industry products (99,84), products of animal origin (93,68), raw leather and leather products (79,46). In the year under review, fat and oils (8,17); wood and wood products (20,27) had the lowest index value. It should be noted that the level of inter-branch trade in the majority of main agribusiness commodity groups during the analyzed period decreased.

In spite of increasing the scale of foreign economic agribusiness activity, a great number of agro-producers remain outside the sphere of international commodity, capital and technology markets and don't consider the possibility of accessing them. The present foreign economic activity participants also face a number of obstacles in organizing exportimport operations. Among the positive consequences of the changing foreign economic agribusiness activity vector within the framework of realizing the Agreement on association with the EU, the following can be noted:

- Access to new capacious markets for selling agrarian products, first of all, in Europe and Asia;
- Increasing producers' income due to higher prices on the European market and exchange rate differences;
- Deepening inter-economic relations with foreign partners through realization of joint projects;
- Increasing investment inflow into enterprise branch;
- Latest technology transfers;
- Production quality improvement (including for domestic market) according to international standards requirements;
- Developing new directions of agrarian production.

At the same time, there are a number of negative consequences, namely:

- Tough competitive conditions on foreign markets and additional exporter expenses for adapting to them;
- Considerable reduction in export product prices because of differences in quality standards;
- Barriers to exporting certain kinds of products, especially finished food products;
- Deterioration of conditions for agro-producer activity on the domestic market because of lifting restrictions on food imports;
- Duration of customs clearance and lack of logistics, which increases losses from product transport and storage;
- Large organizational, sale and marketing costs.

There are also considerable limiting factors for export, such as: unpredictability in the trade policy of Ukraine; non-transparent conditions of reimbursing VAT to exporters; a high level of customs bureaucratization; difficulty observing technical, sanitary and phyto-sanitary requirements; and also quotas for "sensible" kinds of products that are much lower than Ukrainian exporters' opportunities. Quotas for certain kinds of products are used in the first 2-3 months of a year.

For efficient foreign economic agribusiness activity, enterprises must gradually move beyond the existing export range and increase the share of finished products with high added value. After all, nowadays there are quite wide opportunities in Ukraine for creating longer production chains in the agro-industrial complex.

When entering the international market, Ukrainian producers of agrarian goods have to predict and take into consideration any possible problems and obstacles they may encounter. Such obstacles include: oversaturation of the market with export goods; import quotas and restrictions set by countries; requirements for quality/safety; price and transport risks; actions of competitors. First of all, it is necessary for agribusinesses to increase quality and price competitiveness, to research market conditions and to search for available segments in the product market, not limited by quotas. Apart from this, it also is necessary for enterprise-exporters to exactly determine basic marketing activity strategies, develop marketing tools for their realization, and form the principles of market behavior for achieving competitive advantages and for strengthening integration with other food chain participants. Such an approach will enable agribusiness enterprises to choose optimal vectors for their foreign activity and ensure that their goals are in line with the opportunities, resources and strategic directions of their development.

It is expedient for agribusiness enterprises providing agro-food products for export to reorient their production in Ukraine by joint investment with foreign partners or by, franchising. At present, some enterprises of the Western region that were created with the help of foreign capital, work with imported loaned raw materials. After all, processing products in Ukraine is more profitable due to the lower cost of labour and energy compared to countries in the European Union. Thusly, products can be manufactured which correspond to international quality standards, possesses high export competitiveness and are more accessible for domestic consumers than similar imported goods.

This is why forming an internal competitive environment for agrarian businesses is a priority stage for preparing Ukrainian agro-enterprises to enter international markets and to comply with international requirements. Support from state institutions must be aimed directly at this goal. State assistance is also important in helping to mitigate the risks of foreign economic activity, and in developing an effective agrarian production distribution system, trade and transport infrastructure, and legal protections of exporters' interests.

Ukrainian agro-producers, in cooperation with the Ministry of Foreign Affairs and organizations of commerce and industry, have to expand the network of countries with whom they can conduct business. In addition, one of the future strategic elements of foreign economic activity for Ukraine should be concluding agreements not only with certain prospective countries, but also with international economic subunits. Apart from the EU, this could include: ASEAN, NAFTA, African Continental Free Trade Area, MERCOSUR, European Free Trade Association, Eurasian Economic Union, Trans-Pacific Partnership and others.

Coordinating actions of state institutions and large agro-corporations is necessary for helping small agribusiness enterprises, especially in the sphere of introducing innovational technologies, increasing production productivity, product quality, branding, and entering international markets. Coordination will help to diversify exports, extend the added value chain in the agrarian sphere, and ensure its development and reliability.

# Conclusion

The conducted research of the foreign economic activity vector of agribusinesses in the Western region of Ukraine allowed us to draw the following conclusions:

- Ukraine's signing of the Ukraine-EU Association Agreement and the liberalization of international trade conditions that resulted from it, served to intensify foreign economic agribusiness activity. This factor, together with the social, economic and political changes in the country in 2014, considerably influenced the direction of export-import flows of the Western region of Ukraine – one of its largest regions. During the period of 2014–2019, the foreign trade agribusiness turnover in this region increased by 42,6%. It had a positive impact on the national trade balance, which increased by 593,1 million USD. For all the analyzed period, export value exceeded import value.
- The Lviv region has the biggest share in agricultural product exports and imports among the regions of the Western region. This is due to its geographical position,

developed customs infrastructure, and concentration of export-oriented companies. In export and import value the share of the Volyn and Transcarpathian regions is also considerable, as powerful customs checkpoints are also located there. Export concentration in border regions is promoted by an indirect method of agribusiness trade relations with foreign partners, which are carried out through trade intermediaries. Only individual large agrarian enterprises perform foreign economic activity through direct connections.

- The analyses of dynamic changes in the agribusiness foreign trade structure proved that enterprises continue to adhere to the raw material export model, thus offering products with low added value. In particular, plant products (cereals, oil seeds, etc.) and wood dominates the export structure. Instead, mainly finished food products and other processed products are imported. Such an activity model is unfavourable not only in terms of economic expediency, but also when considering structural and ecological threats.
- The Ukraine-EU Association Agreement increased the role of agribusiness from the Western region of Ukraine in forming nation-wide export-import flows of agrarian production. The share of regional enterprises in providing foreign trade from Ukraine with leather, wood and wood products, and products of animal origin are the most considerable. Despite this, agribusinesses of the Western region have no advantages in agrarian product exports for the time being, in comparison with exports from around Ukraine, in general; however, they have advantage in imports. The situation with exports is due to the region lagging behind in producing the main export-oriented products (grain, oil seeds) as compared to the Central and Southern regions of the country. At the same time, increasing the assortment of exported products is a positive phenomenon enabling expansion of export geography, to occupy new market niches and diversify export risks.
- Reorientation and diversification of commodity flows from CIS markets, Russia in particular, to EU countries and other markets (China, Turkey, Egypt, India) are the positive results of agribusiness activities from the Western region of Ukraine over the last few years. Simplifying access for Ukrainian producers to third-country markets became possible once Ukraine received permission to export to the European Union. The markets of Europe and Asia are more capacious, liberalized, and their prices provide higher incomes for exporters. Poland is an important partner of the Western region, taking the leading positions in export and import of most kinds of agrarian production.
- Expanding the presence and strengthening the position of Ukrainian agribusinesses on the international market requires first increasing product quality and competitiveness; more geographical and commodity diversification of exports; a search for new market segments not limited by quotas; improvement in marketing strategies; establishing inter-economic cooperation aimed at forming integral "production-processing-sale" chains and increasing the share of ready-made products for export. Coordinating with state institutions to overcome or mitigate the risks of foreign economic activity, to develop international cooperation, to improve product marketing and to protect national producers' interests is also extremely important.

# References

- Abramovych, I.A. (2011). Theoretical basis and forms of agribusiness. *Efficient economy*, 12. Available May 2020 at:http://www.economy.nayka.com.ua/?op=1&z=907.
- Agribusiness, (1998). *Encyclopedia Britannica*. Available June 2020 at: http://www.britannica.com/ EBchecked/topic/9513/ agribusiness.
- Bashtannyk, V. (2000). State regional policy in the context of European integration: political aspect: *Materials of conference* "State regional policy and local self-government". Kyiv. 9-15.
- Bugil, S.Yu. (2004). Organizational features of agro-industrial integration. Bulletin of Lviv State Agrarian University: Economics of AIC. 9, 496–500.
- Chmyrova, L.Yu., Fediai, N.O. (2013). Ukrainian area zoning as one of the factors of regions spatial socioeconomic development. *Efficient economy*. Available May 2020: http://www.economy.nayka.com.ua/ ?op=1&z=1878.
- Davis, J. H., Goldberg, R. A. (1957). Concept of Agribusiness: Division of Research. Graduate School of Business Administration. Harvard University. Boston. 39/4, 1042–1045.
- Hubeni, Y.E. (2012). Entrepreneurship. Ukrainian technologies. Lviv.
- Hubeni, Yu., Tsiolkovska S. (2019). Development and intensification of agribusiness enterprises foreign economic activity. Liga-Press. Lviv.
- Kaitansky, I.S (2010). Organizational and economic principles of agrarian enterprises foreign economic activity: abstract for the PhD degree in Economy. Kherson.
- Law of Ukraine "On foreign economic activity" (1991). Available May 2020 at: http://www.zakon0.rada.gov.ua/laws/show/959-12.
- Main Statistic office in Lviv region. Available June 2020 at: https://www.lv.ukrstat.gov.ua.
- Shelman, L.M. (1991). The Agribusiness Systems Approach: Cases and Concepts. International Agribusiness Management AIS. MA Harvard Business School, Boston.
- Simplification of trade procedures in Ukraine: estimates and expectations of business 2018/2019: analytics report on the results of the fourth survey wave of the Ukrainian importers and exporters (2019). Kyiv. Available June 2020 at: https:// www.ier.com.ua/ua/areas\_of\_research/international\_economics.
- Socio-economic geography of Ukraine (1995). Ed. O. Shablii. Svit. Lviv.
- State Statistics Service of Ukraine. Available June 2020 at: http://www.ukrstat.gov.ua.
- Vermenych, J.V. (2005). Western Ukraine as a term. *Encyclopedia of History of Ukraine*. Naukova Dumka. Kyiv. 290-291.
- Vitko, Yu. D. (2017). Analysis and evaluation of the current state of foreign economic activity of agricultural enterprises in Poltava region. *Economics and Region*. 5(66), 59–63.

#### For citation:

Hubeni Y., Krupa V., Krupa O., Tsiolkovska S. (2020). The Foreign Economic Vector of Agribusiness Activity in the Western Region of Ukraine. *Problems of World Agriculture*, 20(4), 29–46; DOI: 10.22630/PRS.2020.20.4.20