

## THE VALUE DIMENSION OF UKRAINIAN EXPORTS OF GRAIN CROPS, FATS AND OILS TO EUROPEAN UNION COUNTRIES

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### **Abstract**

*Grain crops, fats and oils of animal or vegetable origin are the main products of the agricultural sector of Ukraine with the greatest export potential. Their total share in Ukraine's total exports in 2021 was 28.4 %. Within the framework of the article, a comprehensive analysis of the distribution of Ukrainian exports of grain crops, fats and oils between EU member states was conducted. The analysis was conducted on the basis of statistical data of the State Statistics Service of Ukraine for 2021. The study used ABC-method, which allows to divide the initial set of objects into three subsets depending on their share in the total value of a certain indicator: A – about 80 %; B – about 15 %; C – about 5 %. It is determined that the largest recipients of Ukrainian grain crops in the EU (worth more than USD 65 mln) are countries such as Spain, the Netherlands, Italy (group A), as well as Belgium, Portugal, Ireland (group B). Ukraine has not exported grain crops to two EU countries (Luxembourg and Slovenia). At the same time, most Ukrainian fats and oils in the EU (worth more than USD 25 mln) were purchased by countries such as the Netherlands, Spain, Poland (group A), as well as Italy, France, Lithuania, Portugal and Germany (group B). Ukraine did not export fats and oils to Luxembourg.*

**Key words:** export, grain crops, fats and oils, Ukraine, EU countries

### **INTRODUCTION**

In the commodity structure of Ukraine's exports in 2021 a significant share (over 10 %) was occupied by such goods as grain crops (USD 12,343.9 mln; 18.1 %), fats and oils of animal or vegetable origin (USD 7,037.3 mln; 10.3 %), ores, slag and ash (USD 7,119.6 mln; 10.5 %), ferrous metals (USD 13,951.3 mln; 20.5 %) [10]. As we can see, the total share of grain crops, fats and oils (28.4 %) indicates that in Ukraine the agro-industrial complex has the greatest export potential.

Since the President of Ukraine applied for membership in the European Union (hereinafter – the EU) on February 28, 2022, after the start of Russia's war against Ukraine, it is appropriate to analyze how Ukrainian exports of grain crops, fats and oils are distributed among EU member states.

Ukraine's foreign economic activity was studied in the following context: Fediv R. and Fediv I. (2020) – directions of development and realization of Ukrainian export potential [1]; Kastakova E. and Bebiakova D. (2016) –

economic impact of the implementation of the DCFTA on the foreign trade of Slovakia and the Ukraine [2]; Koliadenko S. *et al.* (2020) – Ukrainian agricultural exports to EU countries [3]; Kryukova I. O. *et al.* (2018) – the export potential of the agrarian sector of Ukraine in a competitive environment [4]; Melnyk T. *et al.* (2021) – export potential of Ukrainian agro-industrial complex [5]; Moroz S. *et al.* (2017) – trade relations between Ukraine and the EU (Visegrad vector) [6]; Nagyova L. *et al.* (2018) – export trade between Ukraine and the Visegrad countries [7]; Parkhomenko N. *et al.* (2022) – export potential of the agricultural sector of Ukraine [8]; Polkovnichenko S. O. and Rosokhach O. V. (2016) – current trends in realization of the export potential of the agricultural sector of economy of Ukraine [9]; Totska O. L. (2021) – ABC-analysis of EU countries in terms of trade with Ukraine [12]. However, these studies did not provide a comprehensive analysis of the distribution of Ukrainian exports of grain crops, fats and oils of animal or vegetable origin between EU member states, which is the purpose of this work.

**MATERIALS AND METHODS**

To achieve this goal we used ABC-analysis – a method of classifying certain objects (in our case – EU countries) by their relative importance, which divides the initial set into three subsets depending on their share in the total value of a given indicator: A – about 75–80 %; B – about 10–15 %; C – about 5–10 %. In our study, EU countries will be divided into the following three groups:

A – countries with a large volume of purchases of Ukrainian grain crops / fats and oils of animal or vegetable origin (about 80 % of the total);

B – countries with an average level of procurement of basic agro-industrial goods of Ukraine (about 15 %);

C – countries with a small volume of purchases of Ukrainian grain crops / fats and oils (about 5 %).

Note that the statistics of the State Statistics Service of Ukraine [10] for 2021 are presented without taking into account the temporarily occupied territory of the Autonomous Republic of Crimea, Sevastopol and the temporarily occupied territories in Donetsk and Luhansk regions.

**RESULTS AND DISCUSSIONS**

**Ukrainian grain crops exports to EU countries**

In 2021, Ukraine exported grain crops to the EU countries in the amount of USD 1,934.8 mln, which was 15.67 % of total grain crops exports from Ukraine (USD 12,343.9 mln). The distribution of this commodity between the EU member states is given in more detail in Table 1. In it, the countries are in descending order of the value of grain crops imported from Ukraine.

According to Table 1, group A includes three EU countries (Spain, the Netherlands, Italy), to which Ukraine exported grain crops in 2021 in the amount of USD 237.6 mln to USD 644.9 mln. The accumulated share of countries in this group in total exports amounted to 74.15 %.

Table 1. Ukrainian grain crops exports to EU countries

Country	Cost, thousand dollars USA	Share in total exports, %	Accumulated share in total exports, %	ABC group
Spain	644,882.9	33.33	33.33	A
Netherlands	552,213.6	28.54	61.87	A
Italy	237,563.4	12.28	74.15	A
Belgium	157,148.0	8.12	82.27	B
Portugal	150,307.9	7.77	90.04	B
Ireland	66,559.0	3.44	93.48	B
Germany	46,394.9	2.40	95.88	C
Cyprus	20,570.8	1.06	96.94	C
Poland	16,892.0	0.87	97.81	C
Greece	13,180.0	0.68	98.50	C
Lithuania	10,166.2	0.53	99.02	C
Hungary	7,417.6	0.38	99.40	C
Czechia	2,292.5	0.12	99.52	C
Latvia	2,144.7	0.11	99.63	C
Romania	1,849.8	0.10	99.73	C
Austria	1,775.2	0.09	99.82	C
Bulgaria	1,598.9	0.08	99.90	C
Denmark	936.0	0.05	99.95	C
France	282.9	0.01	99.97	C
Croatia	202.9	0.01	99.98	C
Slovakia	153.1	0.01	99.99	C
Finland	129.2	0.01	99.99	C
Estonia	114.6	0.01	100.00	C
Sweden	42.8	0.00	100.00	C
Malta	0.9	0.00	100.00	C
Luxembourg	-	0.00	100.00	C
Slovenia	-	0.00	100.00	C
EU 27	1,934,819.9	100.00		

Source: Author’s calculation based on data from the State Statistics Service of Ukraine [11].

Group B also brought together three EU countries (Belgium, Portugal, Ireland) with purchases of Ukrainian grain crops ranging from USD 66.6 mln to USD 157.1 mln. Their contribution to total exports amounted to 19.33 %. The difference between the lower export position in the previous group (USD 237.6 mln) and the upper in this group (USD 157.1 mln) was USD 80.5 mln.

Group C included 21 EU countries to which grain exports from Ukraine were either less than USD 50 mln or absent. The share of countries in this group in total exports amounted to 6.52 %. The difference between the lower export position in the previous group (USD 66.6 mln) and the upper in this group (USD 46.4 mln) was USD 20.2 mln.

In general, the spread of export amounts ranged from USD 0.9 ths. up to USD 644.9 mln. Ukraine has not exported grain crops to two EU countries (Luxembourg and Slovenia). The results of the ABC-analysis of the EU countries on the value of Ukrainian grain crops exports in 2021 are shown in Fig. 1.

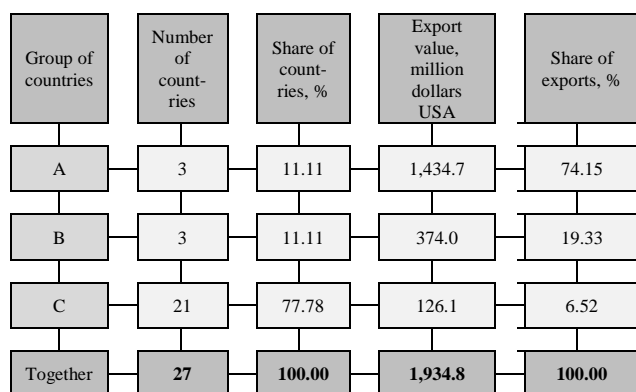


Fig. 1. Results of ABC-analysis of EU countries by value of Ukrainian grain crops exports

Source: Author’s calculation based on data from Table 1.

As we can see, in 2021, 22.22 % of EU countries bought 93.48 % of Ukrainian grain crops exports to the EU.

### Ukrainian exports of fats and oils of animal or vegetable origin to EU countries

In 2021, Ukraine exported to EU countries fats and oils of animal or vegetable origin in the amount of USD 2,362.5 mln, which is 33.57 % of total exports of fats and oils from Ukraine (USD 7,037.3 mln). The distribution of this commodity between the EU member states is given in more detail in Table 2. In it, the countries are listed in descending order of the value of fats and oils of animal or vegetable origin imported from Ukraine.

According to Table 2, group A includes three EU countries (Netherlands, Spain, Poland), to which Ukraine exported in 2021 fats and oils in the amount of USD 394.9 mln to USD 763 mln. The accumulated share of countries in this group in total exports amounted to 68.92 %. Group B brought together five EU countries (Italy, France, Lithuania, Portugal, Germany) with purchases of Ukrainian fats and oils ranging from USD 25 mln to USD 328.7 mln. Their contribution to total exports was 26 %. The difference between the lower export position

in the previous group (USD 394.9 mln) and the upper in this group (USD 328.7 mln) was USD 66.2 mln.

Table 2. Ukrainian exports of fats and oils of animal or vegetable origin to EU countries

Country	Cost, thousand dollars USA	Share in total exports, %	Accumulated share in total exports, %	ABC group
Netherlands	762,964.6	32.29	32.29	A
Spain	470,396.8	19.91	52.21	A
Poland	394,875.2	16.71	68.92	A
Italy	328,674.5	13.91	82.83	B
France	198,087.7	8.38	91.22	B
Lithuania	32,232.5	1.36	92.58	B
Portugal	30,181.9	1.28	93.86	B
Germany	25,030.7	1.06	94.92	B
Slovakia	18,761.8	0.79	95.71	C
Romania	14,562.6	0.62	96.33	C
Bulgaria	14,130.1	0.60	96.93	C
Czechia	12,956.5	0.55	97.48	C
Greece	11,956.0	0.51	97.98	C
Austria	11,675.0	0.49	98.48	C
Estonia	8,907.1	0.38	98.85	C
Belgium	7,879.0	0.33	99.19	C
Cyprus	7,369.0	0.31	99.50	C
Latvia	5,159.4	0.22	99.72	C
Hungary	2,277.0	0.10	99.81	C
Sweden	2,023.2	0.09	99.90	C
Malta	1,810.2	0.08	99.97	C
Croatia	329.9	0.01	99.99	C
Slovenia	124.4	0.01	99.99	C
Denmark	92.9	0.00	100.00	C
Ireland	38.9	0.00	100.00	C
Finland	5.8	0.00	100.00	C
Luxembourg	-	0.00	100.00	C
EU 27	2,362,502.6	100.00		

Source: Author’s calculation based on data from the State Statistics Service of Ukraine [11].

Group C included the other 19 EU countries, to which exports of fats and oils from Ukraine were either less than USD 20 mln or absent. The share of countries in this group in total exports amounted to 5.08 %. The difference between the lower export position in the previous group (USD 25 mln) and the upper in this group (USD 18.8 mln) was USD 6.2 mln. In general, the spread of export amounts ranged from USD 5.8 ths. up to USD 763 mln. Ukraine did not export fats and oils to Luxembourg. The results of the ABC-analysis of the EU countries on the value of

Ukrainian exports of fats and oils of animal or vegetable origin in 2021 are shown in Fig. 2.

Group of countries	Number of countries	Share of countries, %	Export value, million dollars USA	Share of exports, %
A	3	11.11	1,628.2	68.92
B	5	18.52	614.2	26.00
C	19	70.37	120.1	5.08
Together	27	100.00	2,362.5	100.00

Fig .2. Results of ABC-analysis of EU countries by value of Ukrainian exports of fats and oils of animal or vegetable origin

Source: Author’s calculation based on data from Table 2.

As we can see, in 2021, 29.63 % of EU countries bought 94.92 % of Ukrainian grain exports to the EU.

## CONCLUSIONS

Ukraine’s export potential is formed by such goods of the agro-industrial sector as grain crops, fats and oils of animal or vegetable origin. In 2021, they were exported in the amount of USD 12,343.9 mln and USD 7,037.3 mln, respectively. The largest recipients of Ukrainian grain crops worth more than USD 65 mln in the EU are Spain, the Netherlands, Italy (group A), as well as Belgium, Portugal and Ireland (group B). At the same time, most Ukrainian fats and oils worth more than USD 25 mln in the EU were purchased by countries such as the Netherlands, Spain, Poland (group A), as well as Italy, France, Lithuania, Portugal and Germany (group B). In the analyzed period, Ukraine did not export grain crops to Luxembourg and Slovenia; fats and oils of animal or vegetable origin – to Luxembourg. For the completeness of the study, it is advisable to conduct a mirror study of imports of agricultural products from EU countries to Ukraine, as well as an analysis of the share of Ukrainian grain crops, fats and oils in world imports of these goods to EU countries.

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