THE EFFICIENCY OF THE EUROPEAN UNION AGRI-FOOD TRADE IN THE DECADE 2013-2022

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Abstract

The paper analyzed the EU agri-food trade based on Eurostat data in the period 2013-2022 in order establish in what measure its commerce is efficient in terms of total trade, export, import, coverage ratio, trade-to GDP, export ratio, net export, share of groups of products in export and import value, growth rate and regression equations. The results highlighted an increase in agricultural output value by 33.77% which enhanced export. The total agri-food trade increased by +61.3% in the analyzed interval, accounting for Euro 424.6 Billion in 2022. Export value reached Euro 229.1 Billion in 2022, being by 58% higher, while import value raised by 65.53%, attaining Euro 195.5 Billion. Net exports were positive and varied between Euro 25.6 Billion in 2015 and Euro 46.9 Billion, the peak attained in 2021. Also, the coverage ratio was over 100% in the whole interval. The exported amounts were higher than the imported ones till 2016, but then imports exceeded exports, except the year 2021. The average export price was superior to the average import price every year. In the analyzed interval, the average export price increased by 37.13%, while import price by 25.71%. Export ratio was over 100 ranging between 119 in 2015, 131 in 2020 and 117 in 2022. The variations in export and import quantities and values produced changes in the share of the groups of products reflecting that in 2022, the hierarchy for export was: Foodstuffs, Animal products, Vegetal products, Fats and Oils, and for import: Vegetal products, Food stuffs, Animal products and Fats and oils. A positive trade balance and coverage ratio over 100 were found in case of Animal products and Food stuffs, and a negative trade balance and a coverage ratio below 100 was registered for Vegetal products and Fats and oils. Agri-food export accounted for 42.9% in agricultural output value in 2022, but the peak was 44.6% in 2018. The regression equation Y = 0.5259 X - 46.0376 shows that an increase by Euro 1 Billion in agricultural output value could raise export value by Euro 0.52 Billion. This research work highlighted the high efficiency in the agri-food trade of the EU in the period 2013-2022. To preserve its position of world leader in agri-food trade, the EU has to continue its CAP reforms oriented to a high performance from an economic, social, environment and food security point of view.

Key words: agricultural output, agri-food trade, net export, coverage rate, groups of agri-food products, EU

INTRODUCTION

Trade is considered the main driver of the global economy as it allows the goods traffic from a country to another, division of labor, stimulates productivity, gives a growth to real income and a change in the prices of final goods, balances demand/supply ratio, creates advantages between trade partners [24, 28, 30].

Trade could also have a beneficial effect on real GDP as long as the positive difference between export and import value, named "net exports" is a determinant factor besides economic output, consumers' and government

spending on goods and services, investments in capital goods, income and savings distribution [1, 9].

The EU is among the top three trade players in the word next to China and USA, followed by Japan, South Korea, Canada etc. [10, 6, 7, 35].

The EU enlargement stimulated the open market, free movement of goods and labor force, price liberalization, which had a positive impact on the cost reduction, increase of gross domestic product and internal trade among the EU member states [20, 25].

The EU economic and political integration led to benefits regarding labour productivity, income and GDP per capita [3]. Also the EU enlargement favoured income growth, productivity competitiveness and increase of trade [5].

The creation of the EU unique market without any customs barriers for the members states encouraged and intensified trade exchange with a beneficial effect for the whole community [49].

Therefore, trade is very important for the EU and also the EU has a positive influence on trade [23, 50].

First of all, the EU develops trade within its own internal market with the countries which are EU members and, secondly, it runs an extra trade with other countries at international level. The main EU countries developing trade are Germany, Netherlands, Italy, France, Belgium and Spain. The intra-trade is higher than the extra-trade.

The main EU partners for export are USA, United Kingdom, China, Switzerland, Turkiye, Norway, Japan, and for import: China, USA, United Kingdom, Switzerland, Norway, Turkiye, Japan.

While main goods exported by the EU are machinery, other manufactured goods, chemicals, food and drink, energy and raw materials, the order of importance in case of imported goods is: energy, machinery and vehicles, other manufactured goods, chemicals, food and drinks etc. [11].

The share of exports in the EU GDP is higher than the share of imports reflecting an efficient international trade with a positive impact on GDP. If in 2013, the share of exports of all goods and services in GDP accounted for 45%, in the year 2022 it reached the highest share of 55.9%. Also, if in 2013, the share of imports in GDP was 41.5%, in 2022, it weighted for 54.4% [13, 14].

However, after a long period with a positive trade balance, the EU recorded a huge deficit in 2022 accounting for minus Euro 432 Million. This was due to the period of Covid-19 pandemic, the increased wave of imports starting since June 2021 when energy prices have begun to grow. While USA is the main trade partner for export, China is the main supplier of goods on the EU market [12].

In 2022, the EU contribution to the world trade was 13.7%, the lowest level in the decade 2013-2022, compared to 14.7% in 2021 and 16.1% in 2020 as a consequence of the negative factors influence mentioned above [15].

Agricultural industry is an important sector of the EU economy, as proved by agricultural production, income and prices and contribution to GDP. Despite that agricultural production increased also the related cost included in intermediary consumption went up for seeds, fertilizers, animal feeding stuffs, fuel for their tractors, veterinary services, energy etc. [22].

The economic accounts for agriculture showed that the EU agricultural output increased and gross value added as well both in crop and animal sectors. France, Italy, Germany, Spain, the Netherlands, Poland and Romania are the main contributors to the increase of agricultural production [16, 18, 19].

The main products which contribute to the development of the EU agri-food trade are: animal products: milk and dairy products [29, 37, 41, 45], pork and meat preparations [33, 36, 44, 45], and foodstuffs. Also, cereals, oils seeds and vegetables are important both for export and import [46].

EU is the largest exporter and importer of agri-food products at the global level, as the statistical data proved. The trade development was sustained by the growth in agricultural production grace to the CAP reforms which support the farmers to produce more and high

quality products to be competitive on the international market.

Sustainable agricultural competitiveness requires to take into account the economic aspect setting up the sustainable economic competitiveness index (*SECI*) with direct application for agri-food value chains [4] and this is required because of the large diversity of farms in profile, land use [40], labor (age, education, training level, farm experience), endowment, farms structure and size [32, 38, 39, 42, 43], productivity [34], standard output [47, 48], income [21].

However, the EU practices to import a part of agri-food products for covering the internal consumption. The assessment of the impact resulting from the EU's demand for food products, in terms of environmental and social indicators is very important, because this could led to environment degradation due to emissions, land use, employment and income [26].

In this context, the actual Green Deal has an important implication in the EU agri-food trade with the developing countries [27].

The promotion of the EU agri-food products has increased the opportunities to develop commercial transactions and enlarge the market segments and strengthen the relationships with the main trade partners: USA, China, Japan, Switzerland, Canada [2].

In this context, the aim of this study was to analyze the dynamics of the EU agri-food trade and highlight its efficiency by calculating specific indicators which could create an image about the EU performance in this economic field.

MATERIALS AND METHODS

Data collection

The paper is based on Eurostat Data base from where the empirical data have been extracted regarding the following indicators for the period 2013-2022: (i)Output value of agricultural industry, (ii)Export and import value of agro-food products, (iii)Share of agri-food export in total EU agro-food trade, (iv) Share of agri-food import in total EU agro-food trade; (v)Exported and imported quantities of agri-food products by the EU;

(vi)Average export and import prices of agri-food products.

Methodological aspects regarding the calculation of trade efficiency determined in this study were:

(a)Total agri-food trade, $T = E + I$, where $T =$ Total trade, $E =$ Export value and $I =$ Import value.

(b)The Coverage ratio, $CR\% = E/I * 100$

(c)The trade-to GDP ratio, $T\text{-}GDP\% = T/GDP * 100$

(d)Export ratio= $ER\% = EP/IP * 100$, where $EP =$ export price and $IP =$ import price

(e)Net export or trade balance, NE, where: $NE = E - I$

(F)Share of export in the EU trade with agri-food products in the output value of agricultural industry, AO, $E\% = E/AO * 100$.

Other statistical tools used in this study were:

-Growth rate of the studied indicators in the analyzed interval, $R\% = X_n / X_1 * 100$.

- Graphical illustrations were used for showing the dynamism of the studied indicators;

-Regression equations and R^2 for reflecting the trend line and the degree of determination of the changes of the considered variable.

- A part of the obtained results are presented in tables being accompanied by corresponding comments and graphics as well.

Finally, the main conclusions resulting from this study were drawn.

RESULTS AND DISCUSSIONS

Dynamics of Output Value in Agricultural Industry

In the EU has a strong and of high performance agricultural industry both in the field of vegetal and animal sector, as well as in services.

The implementation of various CAP reforms has a beneficial impact on output value.

In the last decade, 2013-2022, the agricultural output value (AOV) increased by 33.77% from Euro 398.5 Billion in 2013 to Euro 533.1 Billion in 2023. This was a consequence of the good results achieved both in the vegetal and animal sectors, where AOV raised by 33.19%, and, respectively, by 25.3%, in 2022 accounting for Euro 284.9

Billion in vegetal sector and for Euro 205.8 Billion in the animal field (Figure 1).

Therefore, the share of vegetal output in AOV increased from 535, the minimum level registered in 2014 to 55.3% recorded in the year 2021, but, in 2022, it decreased by 0.9 pp to 53.4%.

The share of animal sector registered a declining tendency from 41.8% in 2017, the lowest weight registered in 2013 to 36.2%, recorded in 2021, but, in 2022, it increased by 2.4 pp attaining 38.6%.

Also, subtracting the intermediary consumption from output value, the remaining

gross value added (GVA), reflected a continuous ascending trend from Euro 166.2 Billion, the lowest value recorded in 2014 to Euro 219.5 Billion registered in 2022.

As a results, the share of GVA in AOV varied in the analyzed interval from 41.9%, the lowest weight in 2013 to 45.5% carried out in 2017.

However, after 2017, it was noticed a decline to 44.5% in 2018 and 2020, 42.3% in 2021 and 41.2% in 2022, as in the last years the intermediary consumption was affected by the higher price in farm inputs, especially for energy.
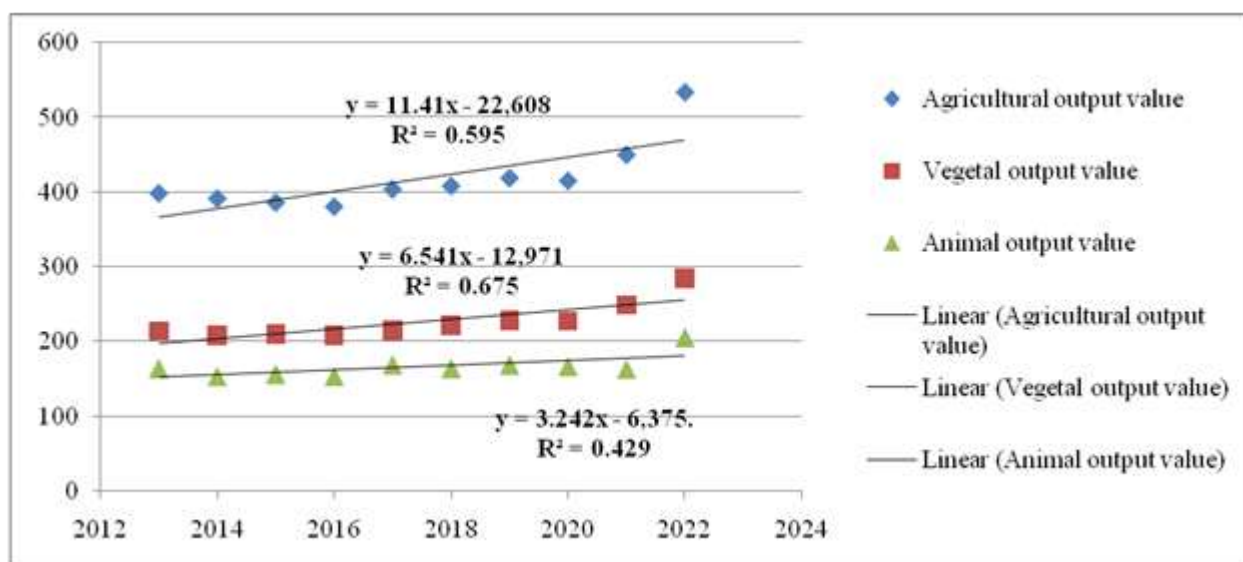

Fig.1. Dynamics of agricultural output value, of which in vegetal and animal sector, EU, 2013-2022 (Euro Billion)
Source: Own design and calculation based on the data from [8, 19].

The data from Figure 1 reflected that the highest share in AOV is kept by vegetal sector, where vegetables come on the top position, being followed by cereals.

On the second position is the animal sector, where the highest share belongs to milk subsector, followed by pig sector. On the 3rd position are the services for agriculture.

The increase in agricultural production value allowed the intensification of commercial exchange in the EU trade aiming to better cover the internal market needs and also to extend and strengthen its trade relationships at international level.

Dynamics of the EU agri-food trade
The EU trade value, including both export and import of agri-food products has remarkably

grown by +61.3% from Euro 263.1 Billion in 2013 to Euro 424.6 Billion in 2022.

Export value has recorded an ascending trend from Euro 145 Billion in 2013 to Euro 229.1 Billion in 2022, which means a surplus of +58%.

At the same time, the value of agri-food import raised by 65.53% from Euro 118.1 Billion in 2013 to Euro 195.5 Billion in 2022 (Figure 2).

Having in mind the fact that the export value was higher than import value every year, the agri-food trade balance or net exports had positive values, which ranged between the minimum of Euro 25.6 Billion in 2015 to the peak of Euro 46.9 Billion in 2021.

In consequence, we may affirm that the EU trade with agri-food products is an efficient

one as net exports have positive values in the whole decade, reflecting that the EU is a net exporting community, a fact confirmed by the superunit values of the coverage ratio (export/import *100), which ranged between

119 in the year 2015 and 131, the peak achieved in the years 2020 and 2021. In 2022, the coverage ratio declined to 117 due to the increased prices for imports, especially caused by energy price (Table 1).
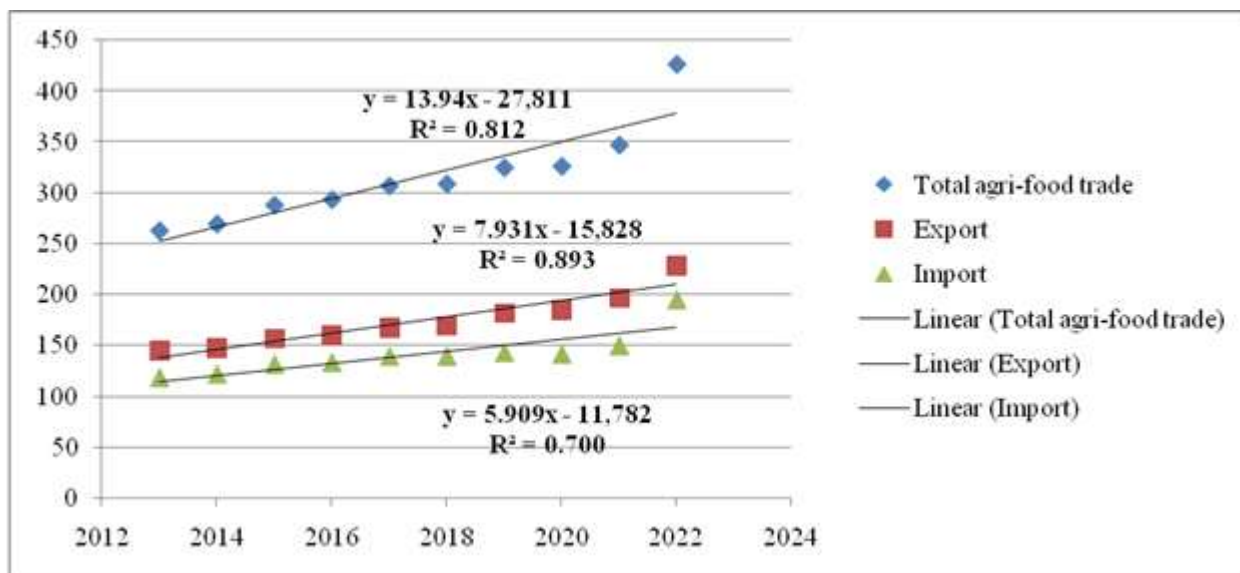

Fig. 2. Dynamics of EU agri-food total trade, export and import values, 2013-2022 (Euro Billion)
Source: Own design and calculation based on the data from [17].

Table 1. Dynamics of net export and coverage ratio of EU agri-food trade, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Net exports (Euro Billion)	26.9	26.5	25.6	26.9	28.7	30.2	38.9	44.3	46.9	33.6
Coverage ratio (%)	122	121	119	120	121	122	127	131	131	117

Source: Own calculation based on the data from **[17].**

Share of agri-food export and import in the EU trade

Export and import of agri-food products has an important place in the EU trade, as proved by its increasing share in export from 8.15 in 2013 to 8.9% in 2021 and 2022, after a peak of 9.65% in 2020 and by its decreasing tendency of the agri-food import from 7.2% in 2013 to 7.1% in 2021 and 6.5% in 2022.

More than this, the weight of agri-food trade in the EU trade balance varied between 0.9% in 2013 and 2.4% in 2022, with the lowest share 0.3% in 2016 and 2017 and with the highest share of 2,4% in the last year of the analysis.

The EU trade in terms of exported and imported amounts of agri-food products

Both the amount of exported and imported agri-food products increased in the EU in the analyzed interval.

The exported quantities followed an ascending trend from 118 Million tons in 2013 to 136 Million tons in 2022, but the peak of 144 Million tons was carried in 2020. For the whole interval, the growth rate accounted for +15.26%.

In case of the imported amounts, it was also noticed an ascending trend from 120 Million tons in 2013 to 158 Million tons in 2022, meaning +31.66%.

However, the data set reflects that the exported amount exceeded the imported quantity till the year 2015. In 2016, the export and import was equal to 133 Million tons and since 2017, the imported quantities became higher than the exported ones, except the year 2021 (Figure 3).
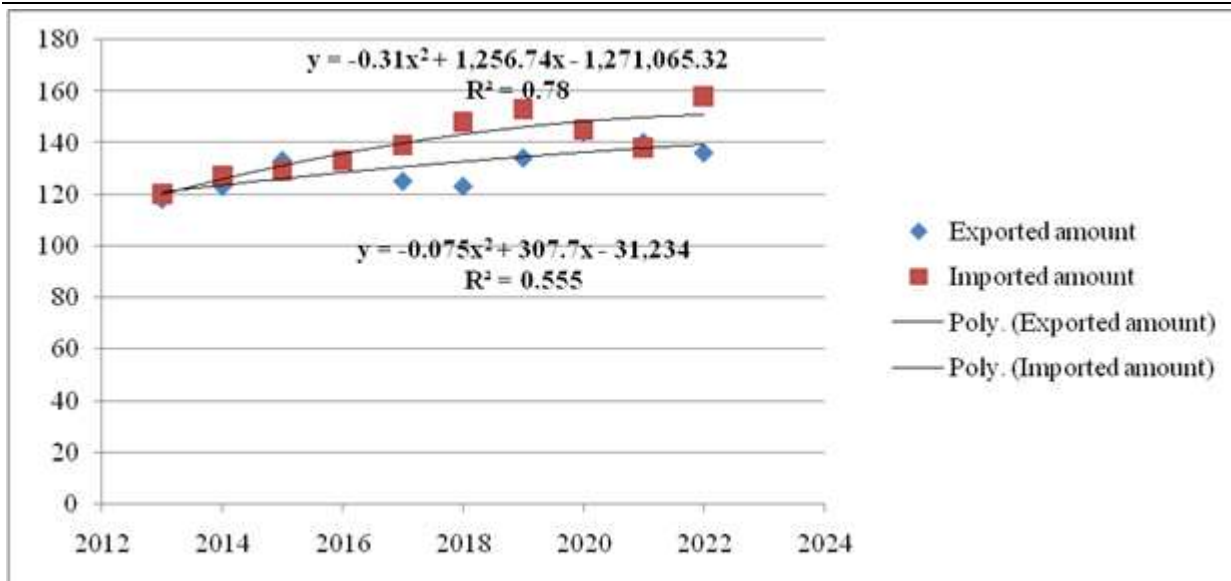
Fig. 3. Amounts of exported and imported agri-food products in the EU, 2013-2022 (Million tons)
Source: Own design and calculation based on the data from [17].

Dynamics of the average export and import price for agri-food products

Average export price for the EU agri-food products was higher than the average import price in every year of the analyzed period.

The average export price increased from Euro 1,229 per ton in 2013 to Euro 1,684 in 2022, meaning by +37.13%.

The average import price also raised but by +25.71% from Euro 984 per ton in 2013 to Euro 1,237 in 2022 (Figure 4).

As a result the differences between export and import price had the highest value of Euro +447 per ton in the year 2022. The difference between export and import price in 2022 versus 2013 was +83.18% (Table 2).
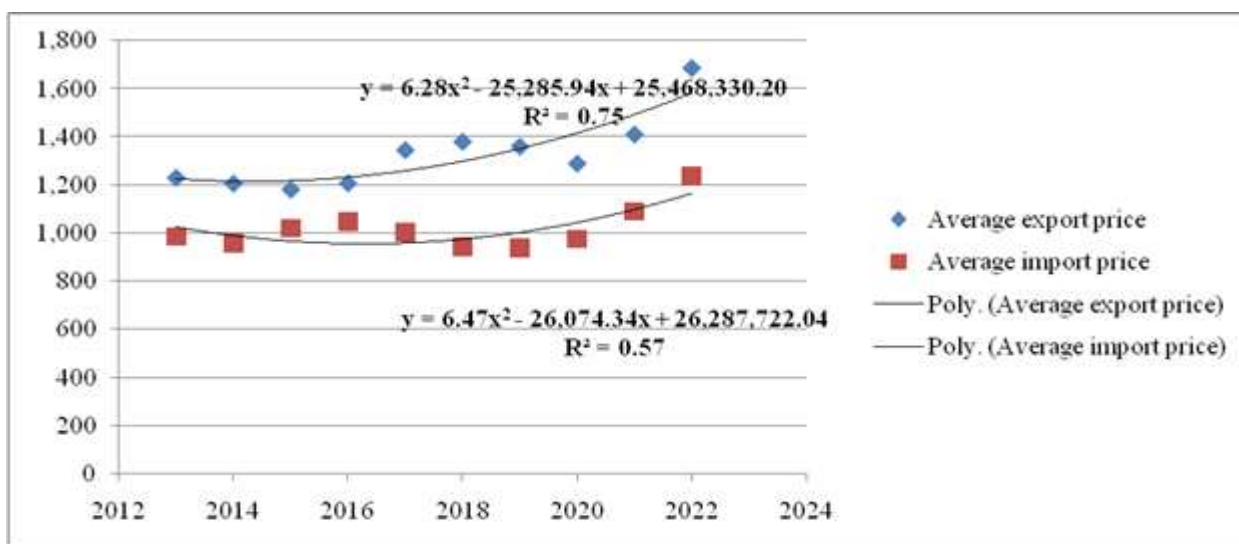

Fig. 4. Dynamics of average export and import prices for agri-food products in the EU, 2013-2022 (Euro/Ton)
Source: Own design and calculation based on the data from [17].

Table 2. Dynamics of the difference between average export and import price and Export ratio , 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Price difference between export and import (Euro per Ton)	26.9	26.5	25.6	26.9	28.7	30.2	38.9	44.3	46.9	33.6
Export ratio (%)	122	121	119	120	121	122	127	131	131	117

Source: Own calculation based on the data from [17].

Export ratio as the percentage of export price divided by import price was higher than 100, reflecting that the EU is a net exporting community. Its values varied between 115.09%, the lowest level, in2016 and 146.28% in 2018, the highest level.

Share of export and import value by group of agri-food products in the year 2022 versus the year 2013

The weight of a group of agri-food products in the export or import value reflects the importance of the group of products in the EU trade and also the ratio between production, as the main source of food products on the community market, and the imports required to better cover the population's requirements and assure food security. In case of export, in 2013, the rank of the four groups of products was: Foodstuffs, Vegetal products, Animal products and Fats and oils. In 2022, the hierarchy was: Foodstuffs, Animal products, Vegetal products, Fats and Oils.

In case of import, the EU proceeds to buy those products which it cannot produce or produce in a smaller amount or they have a lower price and more convenient instead of producing them in the community.

From this point of view, in 2013, the rank of the group of agri-food products was the following one: Foodstuffs, Vegetal products, Animal products and Fats and oils. In 2022, on the 1st position came Vegetal products, Food stuffs, Animal products and Fats and oils (Table 3).

Table 3. The share of export and import value by group of agri-food products in 2022 versus 2013 (%)

	2013		2022		Difference 2022-2013	
	Export	Import	Export	Import	Export	Import
Group 1- Animal products	21.8	19.6	22	19	+0.2	-0.6
Group 2. Vegetal products	22.2	36.1	20	39	-2.2	+2.9
Group 3. Fats and oils	4.1	7.4	4	9	-0.1	+1.6
Group 4. Foodstuffs	51.9	36.8	54	32	+2.1	-4.8

Source: Own calculation based on the data from **[17].**

In case of Group 1, Animal products, export value of this type of products increased by 51.74% from Euro 31.5 Billion in 2013 to Euro 47.8 Billion in 2022, while import value went up by +59.91% from Euro 23.2 Billion in 2013 to Euro 37.1 Billion in 2022 (Figure 5).

Regarding Group 2, Vegetal products, export value increased from Euro 32.3 Billion in 2013 to Euro 47.3 Billion in 2022, meaning + 46.43%. the import value also increased, but by 83.33% from Euro 42.6 Billion in 2013 to Euro 78.1 Billion in 2022 (Figure 6).
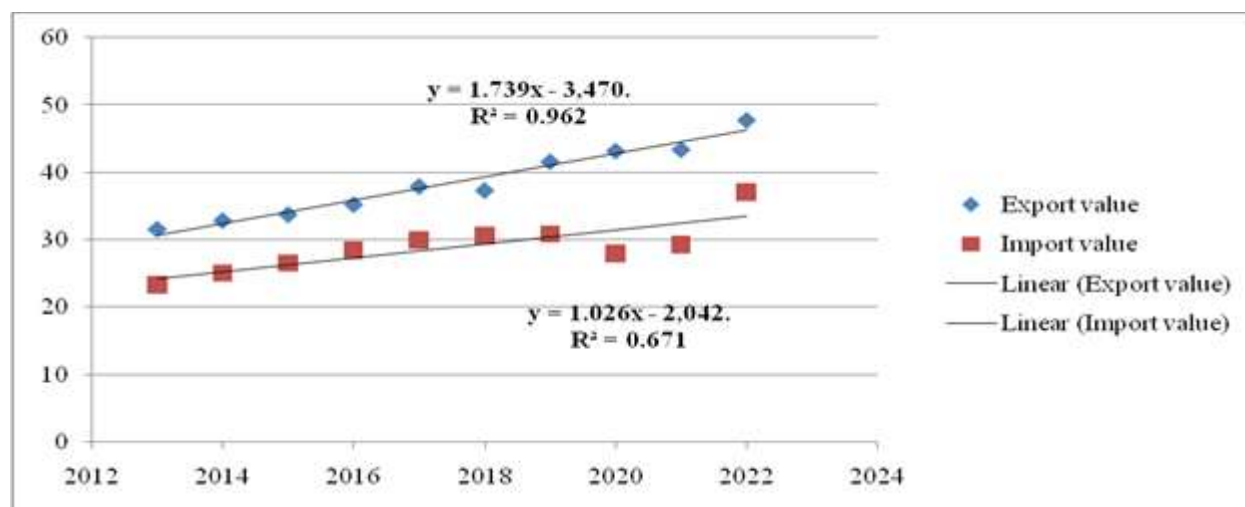

Fig. 5. Dynamics of export and import values for Group 1 Animal products, 2013-2022 (Euro Billion)
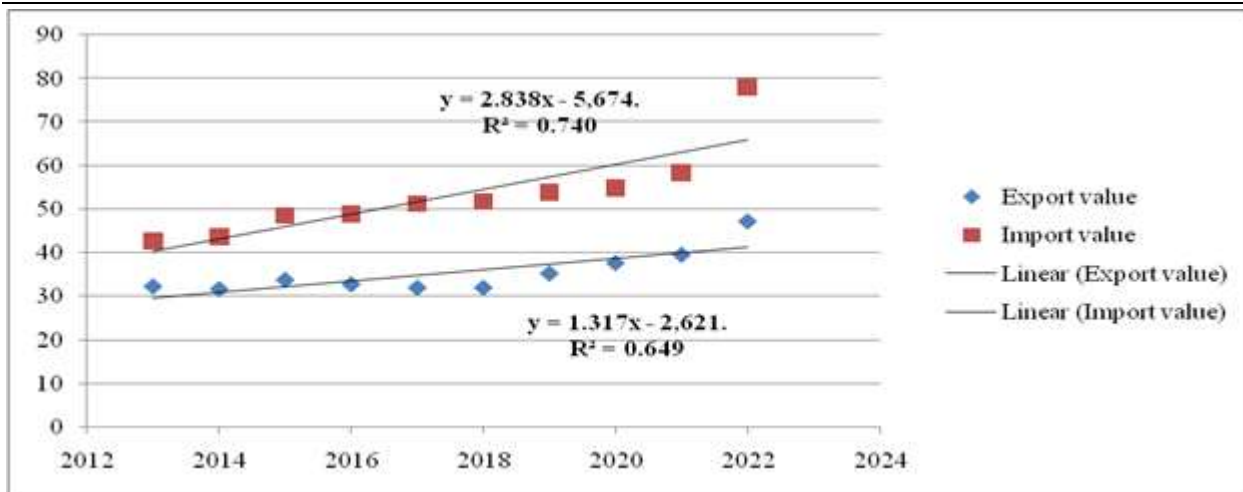Source: Own design and calculation based on the data from **[17].**

Fig. 6. Dynamics of export and import values for Group 2 Vegetal products, 2013-2022 (Euro Billion)
Source: Own design and calculation based on the data from **[17].**
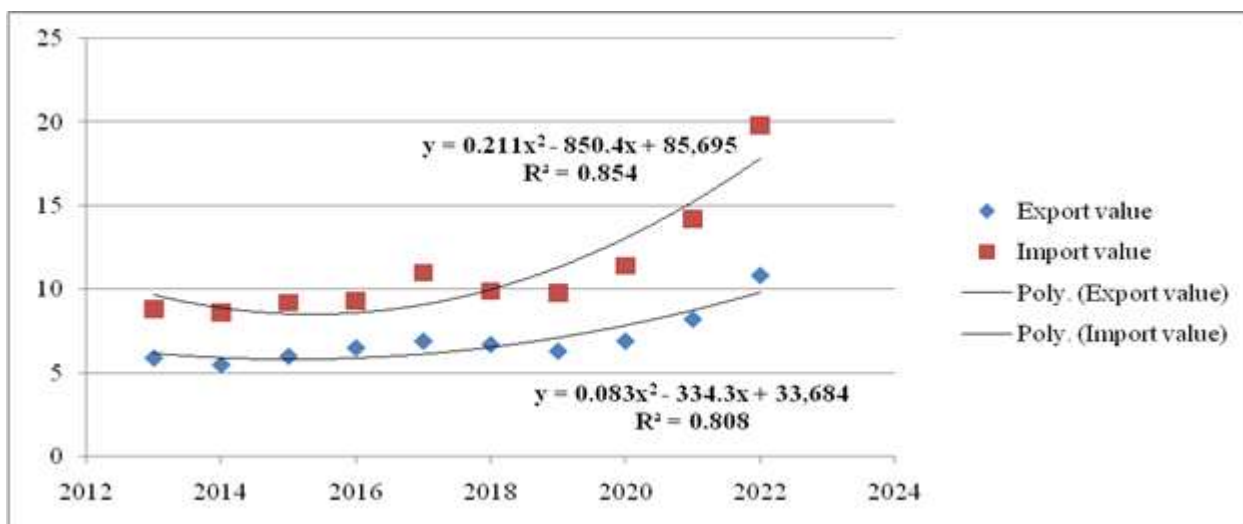

Fig. 7. Dynamics of export and import values for Group 3 Fats and oils, 2013-2022 (Euro Billion)
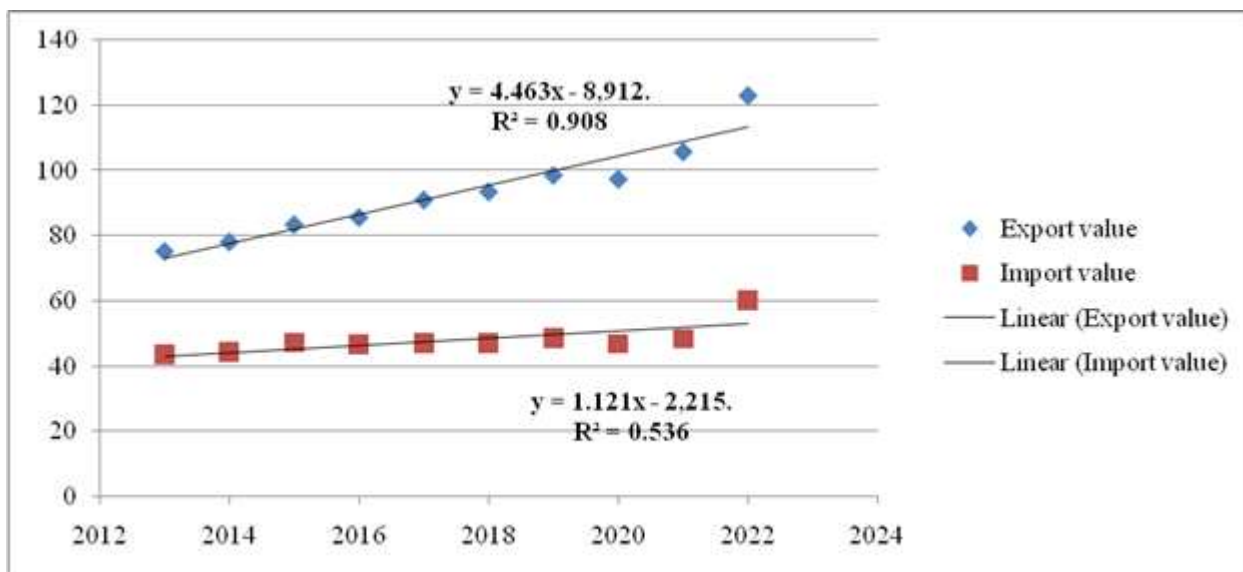Source: Own design and calculation based on the data from **[17].**

Fig. 8. Dynamics of export and import values for Group 4 Foodstuffs, 2013-2022 (Euro Billion)
Source: Own design and calculation based on the data from **[17].**

550

Concerning Group 3. Fats and oils, the export value increased by 83.05% from Euro 5.9 Billion in 2013 to Euro 10.8 Billion in 2022, while the import value also raised but by 125%, from Euro 8.8 Billion in 2013 to 19.8 Billion in 2022 (Figure 7).

Finally, Group 4. Foodstuffs, the export value increased by 63.61% from Euro 75.3 Billion in 2013 to Euro 123.2 Billion in 2022, while the import value augmented by +38.85% from Euro 43.5 Billion to Euro 60.4 Billion in the analyzed interval (Figure 8).

In consequence, the trade balance by group of products was positive in case of Group 1. Animal products and Group 4. Food stuffs, and a negative one in case of Group 2 Vegetable products and Group 3 Fats and oils. Table 4 presents the results for Coverage ratio and Trade balance by group of products.

Table 4. Dynamics of the coverage ratio and trade balance by Group of agri-food products, 2013-2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Coverage ratio (%)										
Group 1 Animal products	135.7	131.2	127.1	123.9	126.7	121.8	135.0	154.8	148.6	128.8
Group 2 Vegetal products	75.8	72.5	69.7	67.07	62.3	61.7	65.6	68.7	67.9	60.5
Group 3 Fats and oils	67.0	63.9	65.2	69.8	62.7	67.6	64.2	60.5	57.7	54.5
Group 4 Food-stuffs	173.1	176.5	176.9	183.5	193.8	198.7	203.1	207.8	218.8	203.9
Trade balance (Euro Billion)										
Group 1 Animal products	8.3	7.7	7.2	6.8	8.0	6.7	10.8	15.2	14.2	10.6
Group 2 Vegetal products	-10.3	-12.0	-14.7	-16.0	-19.3	-19.8	-18.5	-17.1	-18.7	-30.8
Group 3 Fats and oils	-2.9	-3.1	-3.2	-2.8	-4.1	-3.2	-3.5	-4.6	-6.0	-9.0
Group 4 Food-stuffs	31.7	33.9	36.3	39.0	44.1	46.5	50.1	50.6	57.5	62.8

Source: Own calculation based on the data from [17].

Share of agri-food export in the value of agricultural output

It is also an indicator of efficiency both for agriculture and trade reflecting how much of agricultural output is available for being sold to other countries.

In Figure 9 it is shown the dynamics of export comparatively with the dynamics of agricultural output value.
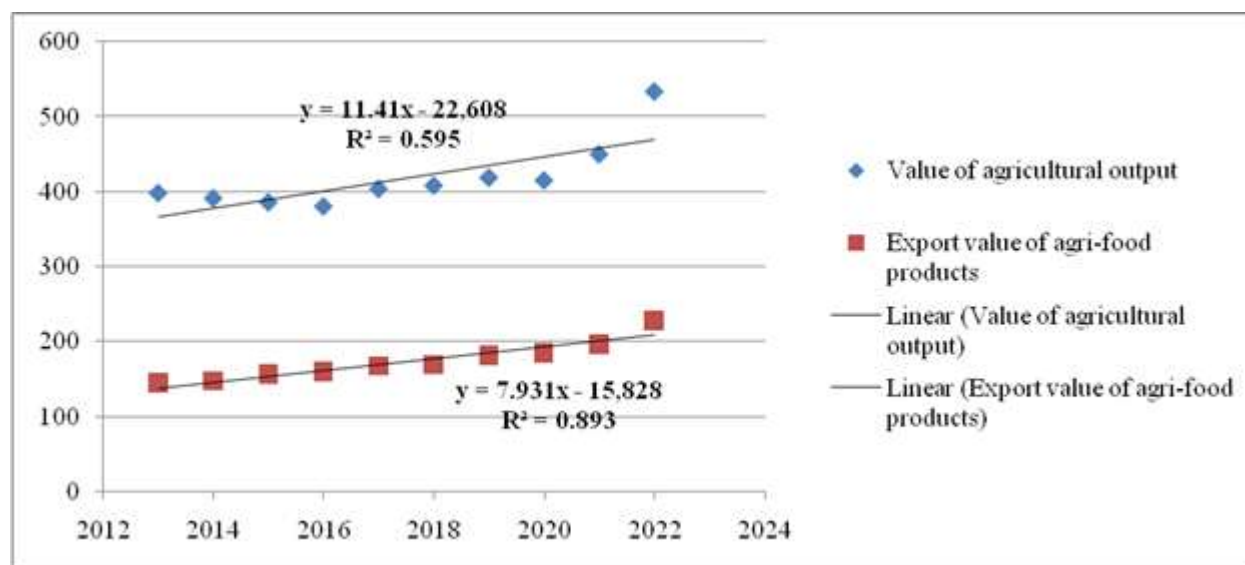

Fig. 9. Dynamics of export value of agri-food products and the value of agricultural output, 2013-2022 (Euro Billion)
Source: Own design and calculation based on the data from **[17].**

In consequence, the weight of export value in agricultural output value ranged between 36.3% in the year 2013, the lowest level, and 44.6%, the highest level recorded in ten year

2018. In the year 2021, it was registered 43.8% and in 2022 42.9%, a much higher share than in the year 2013.

This means that the growth in agricultural production could increase the chance for sustaining the export of agri-food products and, implicitly, the position of the EU among the leaders in agri-food trade in the world.

Considering export value of agri-food products as the dependent variable Y and the value of agricultural output as the independent variable X, the correlation coefficient r = 0.926 and R square = 0.8586 reflected a strong and position link.

Table 5. Estimation of the regression model showing how the export value will depend on the agricultural output value

Summary statistics						
Multiple R	0.92661833					
R Square	0.858621529					
Adjusted R Square	0.840949221					
Standard Error	10.13259179					
Observations	10					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	1	4988.266	4988.266	48.58570197	0.000116	
Residual	8	821.3553	102.6694			
Total	9	5809.621				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-46.03742012	31.74841	-1.45007	0.185085406	-119.249	27.17455
X Variable 1	0.525911093	0.07545	6.970344	0.000116028	0.351924	0.699899

Source: Own calculations.

This shows that the continuous growth of agricultural production could assure an increase in export of agri-food products.

Also, the determination coefficient $R^2 = 0.858$ shows that 85.8% of the variation of export value is caused by the variation in agricultural output value.

After applying the ANOVA, it was determined the regression equation Y = 0.5259 X - 46.0376.

The availability of the regression model is attested by F statistic value = 48.5857 which is superior to Significance F= 0.000116.

Lower 95% and Upper 95% show that the value of parameter "a" ranges between -119.249 < a < 27.174, and the value of parameter "b" varies between 0.351 < b < 0.639.

Therefore, we may consider that the meaning of the regression equation is the following one: for an increase by 1 Billion of agricultural output value, the value of agri-food export will increase by 0.52 Billion (Table 5).

CONCLUSIONS

The EU has a high performance agriculture as reflected by the increasing trend of the value of agricultural output from Euro 398.5 Billion in 2013 to Euro 533.1 Billion in 2023, meaning a surplus on the whole decade of 33.77%. While the agricultural output in the vegetal sector farming raised by 33.19% , in animal sector is increased by 25.3%.

The EU total agri-food trade value went up from Euro 263.1 Billion in 2013 to Euro 424.6 Billion in 2022, which reflects a remarkably gain of +61.3% in the analyzed interval.

While the exported value of agri-food products had an ascending trend from Euro 145 Billion in 2013 to Euro 229.1 Billion in 2022, resulting a surplus of +58%, the value of agri-food import raised from Euro 118.1

Billion in 2013 to Euro 195.5 Billion in 2022, meaning by +65.53%

Net exports had a positive value in all the analyzed years, ranging between Euro 25.6 Billion in 2015 and Euro 46.9 Billion, the peak attained in 2021.

The coverage ratio was over 100% in all the studied years reflecting a high efficient agri-food trade.

The positive net exports and the superunit values of the coverage ratio, varying between 117 in 2022 and 131 in 2015, attest that the EU is a net exporting community.

The exported quantities of agri-food products exceeded the imported ones till 2015, while in 2016 they were equal, but starting from 2017, the imports exceeded the exports, except the year 2021.

Besides the relatively positive aspect regarding the amounts of exported products which were higher than the imported ones, the average export price was superior to the average import price in the analyzed period. Export price increased by 37.13%, from Euro 1,229 per ton in 2013 to Euro 1,684 in 2022, while import price went up by +25.71% from Euro 984 per ton in 2013 to Euro 1,237 in 2022.

As a result, export ratio was over 100 ranging between 119 in 2015, the lowest level and 131 in the years 2020 and 2021. In 2022, it had a fall to 117, but all the values show a high trade efficiency.

In the analyzed interval, there were noticed changes in the shares of the Groups of agri-food products in agri-food trade value. In 2022, in case of export, the hierarchy was: Foodstuffs, Animal products, Vegetal products, Fats and Oils, and in case of import: Vegetal products, Food stuffs, Animal products and Fats and oils.

While in 2022, the exports were higher in case of animal products and Foodstuffs, the imports declined.

Vegetal and Fats and oils diminished their share for export, and increased their weight for import.

In consequence, trade balance was positive and coverage ratio was over 100 in case of Group 1 Animal products and Group 4 Food stuffs. A negative trade balance and a coverage ratio below 100 was registered in case of Group 2 Vegetal products and Group 3 Fats and oils.

The share of agri-food export in agricultural output value ranged between 36.3% in 2013, and 44.6% in 2018. In 2021, it was 43.8% and in 2022 only 42.9%. This reflects how important is the development of agricultural production to stimulate agri-food export.

The regression equation Y = 0.5259 X - 46.0376 expressing the dependence of export on agricultural production, could be interpreted that: an increase by Euro 1 Billion in agricultural output value could led to a growth in export value of Euro 0.52 Billion.

As a final conclusion, the analysis carried out in this research work highlighted the high efficiency in the agri-food trade of the EU in the period 2013-2022.

The CAP reforms oriented to a high performance from an economic, social, environment and food security point of view have to continue for strengthening the position of the EU as leader in the international trade with agri-food products.

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