

ROMANIA'S ROLE ON THE BEEF MARKET IN THE CONTEXT OF GEOPOLITICAL INSTABILITY

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RESEARCH ARTICLE

Abstract

Beef is known to be an important ingredient in the cuisine of European countries, and globally it ranks third in consumer preferences.

In this context, the paper describes aspects related to cattle herds as well as slaughtered cattle and beef production in the European Union and in the main countries where the breeding of these animals is a tradition. Thus, France, Germany and Ireland were in the first positions. At the same time, EU beef imports and exports are presented, in terms of value for the categories: live animals, fresh and chilled beef and frozen beef. Against the background of the current geopolitical instability, it is worth noting that Romania does not occupy an important position on the beef market, especially since the number of animals and slaughtered meat production decreased during the analyzed period, 2015-2021. Instead, for our country we can see an increase in imports.

Keywords: cattle herds, slaughtered beef production, imports, exports

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INTRODUCTION

Beef helps prevent anemia and maintain muscle mass, while supporting the body in the fight against cardiovascular disease. All these benefits are due to the fact that beef proteins contain all 9 essential amino acids for the proper development of the body. That is why beef is preferred by many consumers and consequently it is part of the culinary traditions of many countries (Angustos, 2022).

According to the information presented by the European Commission, in the Beef & Veal Market Situation, the E.U. was in 2021 among the top 10 beef exporters worldwide. The E.U. ran a trade surplus in beef and live animal products (excluding the U.K.) over the period analyzed in this article, 2015-2021 (European Commission, 2022). To support this important sector in order to increase competitiveness, the EU provides financial support (Chiurciu et al., 2016, DG AGRI, 2022, Grodea M. et al., 2022).

In 2021, cattle ranked 2nd in the EU's livestock, after swine (Popescu A., et al., 2022).

At EU level, France, Germany and Ireland were the main cattle breeding countries. France,

Germany and Italy were major producers, both in terms of slaughtered heads and meat production (Eurostat, 2022).

In Romania, raising cattle is a traditional activity for the population in the countryside and especially in the mountain area. In addition, our country has large areas of pastures, as well as large amounts of by-products from vegetable production, which can be used by the bovine species (MADR, 2022). However, Romania, despite the allocated non-refundable European funds, does not occupy a leading place among cattle breeders in the EU (Chiurciu & Cofas, 2021). This may also be due to the fact that Romania is not a traditional consumer of beef. In consumer preferences, it ranked 3rd after pork and chicken (Panzaru & Medelele, 2021). It is estimated that the Romanian consumer eats approximately 6 times less beef than a European consumer (Tamba-Berehoiu et al., 2017).

The paper presents data on the number of live cattle, meat production and slaughtered cattle, imports and exports of beef in terms of value for the categories: live animals, fresh and

chilled beef and frozen beef. The collected data are reported for the EU, the main cattle breeding countries and Romania. All this will contribute to a better knowledge and understanding of the sector, with a view to increasing the quantity and quality of beef production.

MATERIAL AND METHOD

In order to highlight the position occupied by Romania on the beef market in the context of the current geopolitical situation, the following indicators were analyzed: cattle herds in the European Union, in the member states where this business is practiced and in Romania, slaughtered beef production and slaughtered cattle, the value of imports and exports of the EU states for the categories: live animals, fresh and chilled beef and frozen beef. The analyzed period was 2015-2016.

Thus, the place occupied by Romania in this important sector of the EU economy was highlighted.

At the same time, the documentation made within the article was based on an

analysis of specialized literature and existing reports and studies.

The statistical data were taken from statistical websites, such as Eurostat and ITC, but also from the Romanian Ministry of Agriculture and Rural Development and the European Commission. They were interpreted and presented in the form of tables and graphs.

RESULTS AND DISCUSSIONS

In 2021, there were 75,655.20 thousand live cattle in the EU, down from 2015 (excluding UK) by 4.6% (Eurostat, 2022).

The main EU member states that raised cattle are shown in Figure 1. We note that the first positions were occupied by France (17,330.08 thousand heads in 2021), Germany (11,039.66 thousand heads in 2021) and Ireland (6,649.31 thousand heads in 2021).

If for the analyzed period, 2015-2021, France and Germany recorded decreases of 10.61% and 12.63%, respectively, in Ireland the number of live cattle increased by 3.54%.

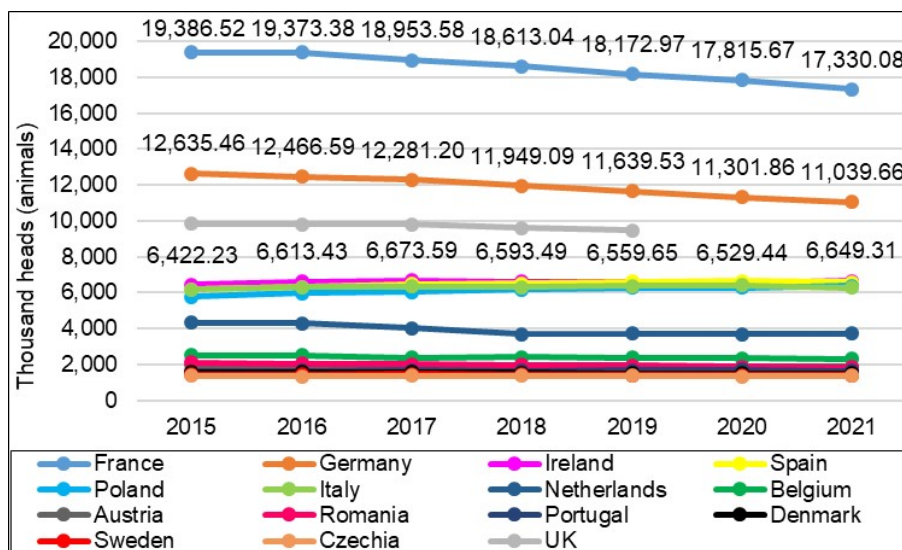


Figure 1 The number of live cattle in the main breeding states in the EU (thousands heads)
Source: own design after Eurostat, 2022

Romania entered the top 10 cattle-breeding EU countries, with a herd of 1,826.80 thousand heads in 2021, down 12.7% compared to 2015. Unfortunately, the difference between the cattle herds in Romania and France, ranked first of all, it's huge.

Analyzing the indicator of cattle distributed per 100 ha of land (arable land, pastures, hayfields) it was found that in Romania it represents 22.2 heads/100 ha, in the EU it is double - 48.8 heads/100 ha, and

worldwide, 62.7. heads/100 ha (ACEBOP, 2022).

Regarding the number of slaughtered cattle, in 2021, 23,033.81 thousand cattle were slaughtered in the EU, down 0.19% compared to 2015 - excluding UK (Eurostat, 2022).

France (4,458.20 thousand heads slaughtered in 2021), Germany (3,240.59 thousand heads slaughtered in 2021) and Italy (2,774.54 thousand heads slaughtered in 2021)

are the countries in the first positions in terms of the number of cattle slaughtered.

France and Germany recorded decreases of 4.43% and respectively, 7.91%, in the

analyzed period, 2015-2021, and Italy presented a 2.32% increase (Figure 2).

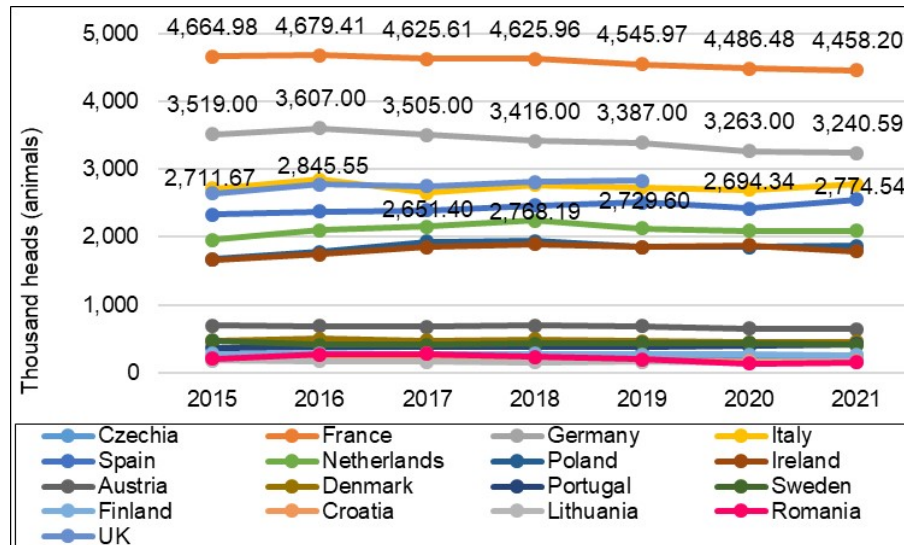


Figure 2 The number of cattle slaughtered in slaughterhouses in the main states in the EU (thousands heads)
Source: own design after Eurostat, 2022

With 152.28 thousand heads slaughtered in 2021, Romania was far from the top 10 EU member states. In addition, our country recorded a decrease in this indicator of 26.85% in 2021 compared to 2015. Some authors (Popescu A., 2016) considers that only 26% of cattle are slaughtered in specialized units, and these are high-quality fattened animals, weighing more than 400 kg live/head.

The amount of slaughtered beef recorded in the EU in 2021 was 6,801.91 thousand tons, with a slight increase of 1.5% compared to 2015

- excluding UK (Eurostat, 2022). We can conclude that in the EU, although the number of cattle was slightly down in 2021 compared to 2015 (0.19%), the amount of meat increased due to the increase in the weight of slaughtered animals.

France, Germany and Italy also occupied the first places in the category of the quantity of beef slaughtered (Figure 3). Thus, in 2021, France recorded 1,424.32 thousand tons of slaughtered meat, 1.96% less than in 2015.

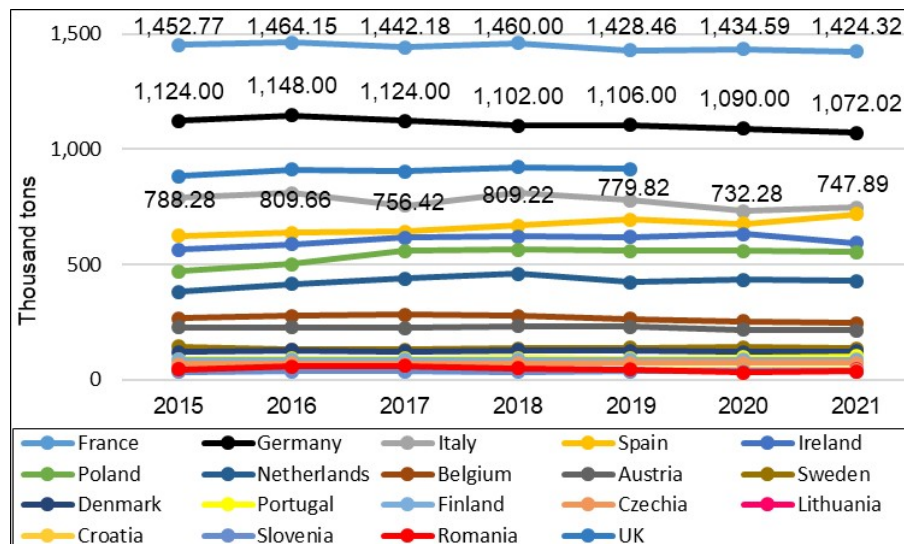


Figure 3 The amount of beef slaughtered in slaughterhouses in the main states in the EU (thousands tons)
Source: own design after Eurostat, 2022

Germany accounted for 1,072.02 thousand tons of slaughtered beef in 2021, down 4.62% compared to 2015. Italy obtained in 2021, 747.89 thousand tons of beef after slaughter, meaning 5.12% less compared to 2015

Therefore, the growth recorded at EU level in 2021 was not due to the top 3 states.

In Romania, there was a decrease in the amount of beef slaughtered by 18.6% less in 2021 (36.20 thousand tons) compared to 2015 (44.47 thousand tons). This decrease was recorded against the background of the decrease in the number of slaughtered cattle.

A problem observed in Romania is the average carcass weight of cattle at slaughter, which is 50% lower than the European average. This means that the value added to the finished casing production is lost (Marin et al., 2021).

Global live cattle imports increased by 15% between 2015 and 2021. In the top 10 importers were Italy, on the 2nd position (imports of live cattle worth 1,601,454 thousand USD in 2021) and the Netherlands, on the 7th position (with imports of live cattle worth 396,153 thousand USD in 2021) – Table 1.

Table 1

The main importers worldwide from the category of live bovine
(thousand USD)

Position	Importers	Years					2021/2017 %
		2017	2018	2019	2020	2021	
	World	8,825,533	10,336,118	9,729,534	9,689,188	10,125,922	115
1	USA	1,596,286	1,644,945	1,859,783	1,822,993	1,637,113	103
2	Italy	1,290,654	1,524,818	1,057,803	1,351,689	1,601,454	124
3	China	215,588	268,975	335,012	487,050	798,375	370
4	Indonesia	521,597	573,926	596,646	434,816	533,060	102
5	Viet Nam	315,632	349,822	615,118	685,812	509,545	161
6	Lao PDR	34,632	92,739	451,962	506,639	433,849	1,253
7	Netherlands	286,621	327,488	343,680	356,965	396,153	138
8	Canada	141,018	154,006	200,790	199,644	362,332	257
9	Israel	196,570	218,972	233,187	234,541	353,315	180
10	Turkey	1,159,875	1,692,347	672,341	410,707	285,793	25
	...						
36	Romania	21,379	18,604	12,789	19,374	35,007	164

Source: our calculations after ITC, 2022

In the category of live cattle imports, Romania was in 36th position in 2021, registering a 64% increase compared to 2017. The value of imports amounted to 35,007 thousand USD in 2021.

In the world top of fresh or chilled beef importers (Table 2), the first ranked EU

member states were: Germany - position 3th (1,932,584 thousand USD in 2021, down 0.3% compared to 2015); Italy - 4th position (1,915,473 thousand USD in 2021, up 1.5% from 2015) and the Netherlands - 5th position (1,626,607 thousand USD in 2021, up 1.0% compared to 2015).

Table 2

The main importers worldwide from the category of beef, fresh or chilled
(thousand USD)

Position	Importers	Years					2021/2017 %
		2017	2018	2019	2020	2021	
	World	22,005,632	23,936,053	23,480,541	22,778,765	27,609,942	125.47
1	USA	2,802,757	3,055,726	3,440,023	3,747,512	4,974,106	177.47
2	Japan	1,927,212	2,105,972	2,125,183	1,961,729	2,202,269	114.27
3	Germany	1,938,445	2,019,730	1,893,261	1,853,107	1,932,584	99.70
4	Italy	1,887,238	1,960,750	1,910,749	1,717,331	1,915,473	101.50
5	Netherlands	1,610,425	1,682,465	1,571,190	1,409,507	1,626,607	101.00

6	Chile	900,843	992,871	951,163	949,362	1,466,842	162.83
7	Korea, Rep.	719,892	865,365	868,107	978,928	1,425,140	197.97
8	France	1,066,324	1,130,540	1,117,301	917,748	1,194,289	112.00
9	UK	1,135,348	1,196,445	983,746	967,836	1,173,002	103.32
10	Mexico	739,367	802,431	773,366	607,217	803,069	108.62
...							
51	Romania	25,012	29,150	26,198	26,682	33,324	133.23

Source: our calculations after ITC, 2022

Romania occupied the 51st place, having in 2021 imports of fresh and chilled beef worth 33,324 thousand USD. Compared to 2015, there was an increase of 33.23%.

In the category of frozen beef, no EU country was in the top 10 importers worldwide, for the period 2017-2021, according to the data available on ITC. Only in 16th place was France

(330,364 thousand USD in 2021), in 18th place - Italy (316,157 thousand USD in 2021), in 19th place - Netherlands (300,092 thousand USD in year 2021) and on the 40th place Romania.

In the period 2017-2021, frozen beef imports of Romania increased, from 28,133 thousand USD to 55,793 thousand USD, i.e. by 98.32% (Figure 4).

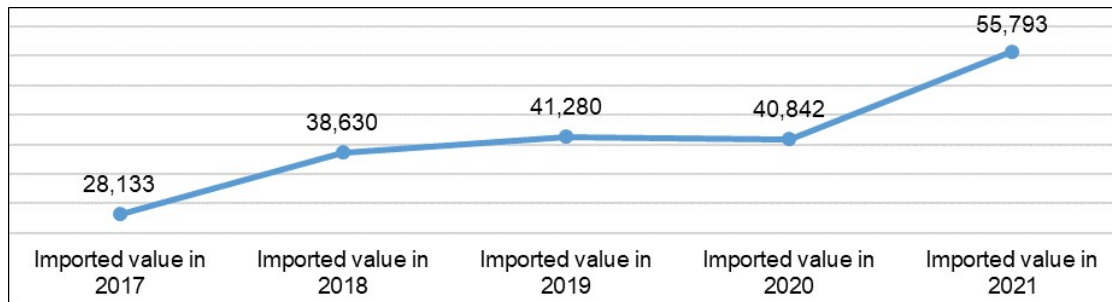


Figure 4 Romania's frozen beef imports, in the period 2017-2021 (thousand USD)

Source: own design after ITC, 2022

Table 3 shows live animal exports worldwide. There are seven EU member states in the ranking of the most important exporters.

The first position in the top was occupied by France, which recorded increases of 1.92% in the analyzed period.

Table 3

The main exporters worldwide from the category of live bovine
(thousand USD)

Position	Exporters	Years					2021/2017 %
		2017	2018	2019	2020	2021	
	World	8,513,667	9,736,731	9,300,710	8,746,222	8,912,801	104.69
1	France	1,651,123	1,752,704	1,685,773	1,642,342	1,682,871	101.92
2	Australia	897,333	1,101,109	1,249,599	1,134,796	1,052,531	117.30
3	Canada	882,730	816,042	979,334	894,962	880,816	99.78
4	USA	234,924	251,815	263,743	293,605	537,221	228.68
5	Mexico	682,982	756,465	824,201	883,174	485,162	71.04
6	Spain	299,171	397,786	324,378	346,132	316,622	105.83
7	Netherlands	430,524	425,931	324,810	257,999	306,178	71.12
8	Germany	433,100	403,835	343,582	288,637	269,477	62.22
9	Czech Republic	222,461	219,547	211,977	189,202	222,041	99.81
10	New Zealand	45,241	20,858	51,195	208,946	220,740	487.92
11	Hungary	140,721	155,133	177,901	196,367	218,563	155.32
12	Uruguay	219,814	271,084	100,123	104,101	211,977	96.43
13	Romania	228,740	192,148	186,934	160,622	207,777	90.84

Source: our calculations after ITC, 2022

Romania ranked 13th, exporting live cattle worth 207,777 thousand USD in 2021, 9.16% less than in 2015.

In the top of the world exporters of fresh or chilled beef (Table 4) during the analyzed period, there were five member states of the European Union, the Netherlands being in the

best position - 3rd position, then 5th position - Ireland and 7th position - Poland.

The Netherlands and Poland registered export increases of 11.81% and 19.15% respectively, while Ireland saw a decrease of 1.19% in this category.

Table 4

The main exporters worldwide from the category of beef, fresh or chilled
(thousand USD)

Position	Exporters	Years					2021/2017 %
		2017	2018	2019	2020	2021	
	World	22,769,259	24,714,461	23,956,463	23,371,975	28,839,906	126.66
1	USA	3,381,219	3,687,807	3,523,477	3,558,278	4,702,842	139.09
2	Australia	2,290,224	2,562,375	2,704,661	2,742,795	2,989,439	130.53
3	Netherlands	2,493,358	2,636,514	2,500,661	2,303,046	2,787,795	111.81
4	Canada	1,295,976	1,528,696	1,769,918	1,804,725	2,527,418	195.02
5	Ireland	1,957,029	2,023,495	1,810,223	1,804,970	1,933,681	98.81
6	Mexico	991,705	1,072,911	1,190,857	1,348,717	1,829,955	184.53
7	Poland	1,163,620	1,348,607	1,145,446	1,152,067	1,386,461	119.15
8	Germany	1,234,219	1,229,011	1,136,555	963,940	1,160,107	94.00
9	France	983,078	1,059,722	971,950	922,913	1,078,116	109.67
10	Brazil	684,410	899,278	880,818	767,772	996,190	145.55
	...						
40	Romania	43,867	35,941	23,950	14,901	21,329	48.62

Source: our calculations after ITC, 2022

Romania was in 40th place, having exports of fresh or frozen beef worth 21,329 thousand USD in 2021, down 51.38% compared to 2017.

Figure 5 shows Romania's exports of frozen beef for the period 2017-2021. We note an increase in these exports by 2%.

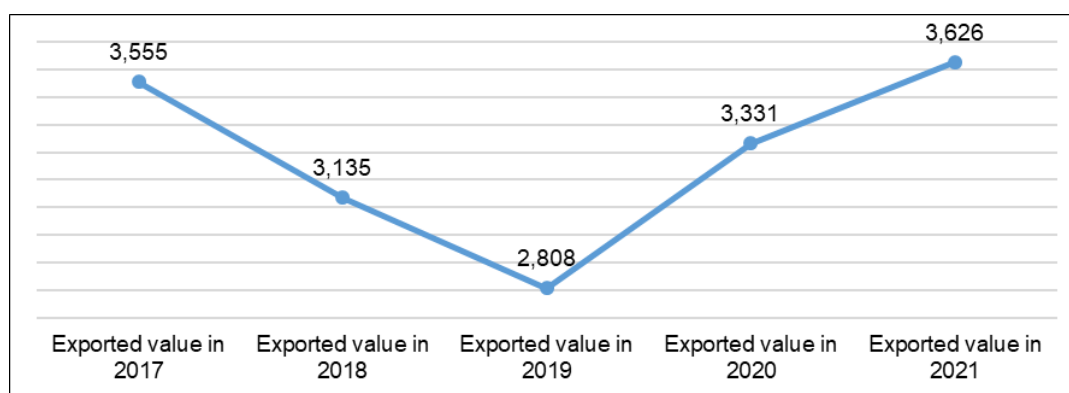


Figure 5 **Romania's frozen beef exports, in the period 2017-2021** (thousand USD)

Source: own design after ITC, 2022

In 2019, the lowest export value of 2,808 thousand USD was recorded.

CONCLUSIONS

Against the backdrop of global population growth, the demand for beef will also increase, as this product is highly valued and frequently consumed in all cuisines.

Currently, Romania has pastures and has the possibilities of raising beef cattle in an extensive system, but it still does not exploit them to their true potential.

Despite the fact that it is among the top 10 cattle breeders in the EU, the herds in our country represent only 10.54% of the cattle raised in France, the country that is in first place

in the EU. Cattle breeding, a traditional activity in Romania, has recently suffered due to the aging of the rural population and the migration of young people to the city.

To solve slaughter weight problems, farmers will need to be supported not to sell young animals at optimal slaughter weight and to adhere to rearing technologies and feed rations that generate higher beef production and superior quality.

Although there is interest in the domestic consumption of beef, Romania exports live animals, occupying a leading position (13th place) in the list of exporters worldwide.

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