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# THE EVOLUTION OF TRADE WITH MEAT AND ORGANS IN THE PERIOD 2010-2020, IN ROMANIA

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**Abstract:** This paper aims to analyze the evolution over time of the trade with meat and organs, in Romania, important foods for a balanced diet. Statistical data indicate that, although Romania has large productions, it is deficient in terms of ensuring meat consumption, especially with pork, which occupies the first position on the list of imports of agri-food products. The analysis was carried out with the help of statistical indicators: the evolution of imports and exports for the period 2010-2020 and the trade balance. The conclusions resulting from this work underline the importance of the livestock sector development, constituting an essential element for ensuring food security.

**Keywords:** import, export, meat, trade balance, Romania

Classification JEL: Q17, Q02, Q13

#### INTRODUCTION

Animal husbandry plays an important role in rebalancing trade with agri-food products in Romania (Business Microcredit, accessed 2022). After Romania's accession to the EU, meat production decreased, which is due to the disappearance of many animal slaughtering units that did not comply with European standards. Only units operating at high performance levels remained on the market (MADR, 2015). Also, market fluctuations and changes in consumer preferences have led, over time, to fluctuations in livestock and production (Lumea satului, 2021).

Romania, 20 years ago, was a large producer of meat, but for several years our country has become a net importer of meat and organs. As indicated by specialist studies, the balance of trade balance sheet with meat and meat products has been on a downside for a long time, with imports rising to a level that is difficult to reach by the exports made by our country. Instead, there is a surplus of the trade balance in the category of live animals, Romania being an exporter of primary, unprocessed products (Ilie Stoian, 2013). The value of the trade balance with live animals in the 11 years studied (2010-2020) reaches 1.96 billion euros (exports of 3.68 billion and imports of 1.72 billion).

The main partners with whom Romania carries out commercial exchanges are the European countries, in recent years reaching a weight of approx. 88-89% of the total imports or exports (Simion Mihaela Aurelia, 2020).

## MATERIAL AND METHOD

The study is based on Trade Map statistical data on international demand for goods. In this study, the indicators that characterize Romania's foreign trade were used: Romania's export and import of meat and organs and the share of the main partner countries.

The analysis was carried out with the help of statistical indicators regarding the evolution of the value of imports and exports of meat and organs of Romania, as well as the trade balance for the period 2010-2020: average, standard deviation, coefficient of variation, and growth rate.

#### **RESULTS AND DISCUSSIONS**

Statistical data (Trade Map) regarding Romania's foreign trade in meat and organs indicate that the highest value of imports was recorded in 2019, when it reached 940.3 million euros. In 2020, imports with a volume of 912.5 million euros, registered a decrease of 3% compared to 2019, but compared to 2010, it was higher by 83.8%.

Table 1. The evolution of the value of imports of meat and organs in Romania, in the period 2010-2020

Countries	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average	C.var.*	Annual rate	2020/ 2010	2020/ 2015	2020/ 2019
	Euro thousand												%	%	%	%	%
Total import Romania	496585	440069	478192	489680	545575	568661	643710	766528	817588	940316	912484	645398.9	28.4	6.3	183.8	160.5	97.0
Spain	34386	25643	27415	35309	50103	60989	101231	129000	164720	182017	176176	89726.3	70.2	17.7	512.3	288.9	96.8
Germany	116694	116124	114960	121562	145503	158091	151817	176706	174225	174586	174943	147746.5	17.7	4.1	149.9	110.7	100.2
Hungary	87282	84823	130950	142467	114615	113819	126791	135071	149656	196535	170092	132009.2	25.0	6.9	194.9	149.4	86.5
Poland	16763	14518	20595	21188	43771	60205	66320	85282	84360	106753	121551	58300.5	65.3	21.9	725.1	201.9	113.9
Netherlands	54787	47974	56028	53393	70737	59758	58847	77131	73228	84848	82130	65351.0	19.4	4.1	149.9	137.4	96.8
Belgium	28130	24100	15387	16074	19087	18078	15321	20292	21567	35219	42799	23277.6	38.0	4.3	152.1	236.7	121.5
Italy	25374	28446	27687	22956	22208	22988	38285	45382	38286	40794	32609	31365.0	26.0	2.5	128.5	141.9	79.9
Denmark	19948	12768	13705	17231	12905	15207	11531	19270	18304	19571	26378	16983.5	25.6	2.8	132.2	173.5	134.8
United Kingdom	5134	2216	2825	3504	4747	8232	9839	14351	12402	13385	15765	8400.0	59.5	11.9	307.1	191.5	117.8
Austria	33231	21359	22583	13467	17384	11303	15278	16496	17651	16710	10896	17850.7	35.1	-10.6	32.8	96.4	65.2
Lithuania	0	0	116	85	591	983	926	690	5967	9209	9818	2580.5	148.2	-	-	998.8	106.6
Estonia	145	158	1085	1099	1997	5014	8988	8231	4649	9224	8993	4507.5	84.2	51.1	6202.1	179.4	97.5
Bulgaria	29457	20824	14809	13832	13305	11586	10819	6261	8795	7827	8880	13308.6	50.3	-11.3	30.1	76.6	113.5
France	25163	19089	14345	12288	13083	8836	10480	11187	12388	13252	8287	13490.7	35.9	-10.5	32.9	93.8	62.5
Cyprus	4716	7904	2067	7452	5929	4079	4343	4938	6624	7971	5743	5615.1	32.4	2.0	121.8	140.8	72.0

Source: Own calculation based on TRADE MAP data

Regarding the evolution of the value of imports of meat and organs, an increase in imports from Poland can be observed throughout the analyzed period with an annual rate of 21.9%. At the same time, compared to 2019, the value of imports from this country has increased significantly by approximately 14% in 2020. It can also be observed that imports from the Netherlands, in 2020 compared to 2010, recorded almost 50% higher values, but compared to 2019 they decreased by 3.2%.

The main suppliers of meat and organs to Romania during the entire analyzed period are: Spain, Germany and Hungary.

Spain in 2020 had a share of 19% of the total, with a value of 176.1 million euros (five times higher than the value reported in 2010), having a share of 7%. It is closely followed by Germany with a share of approx. 19%. Even if the value of imports from Germany increased in 2020 to 174.6 million

euros (+49.9% compared to 2010), their share in total imports decreased compared to 2010 (23%) or 2015 (28%), when it represented the main supplier of meat and organs in our country.

In third place is Hungary, which in 2020 has a share of 19% of the total imports of meat and organs. The value of meat and organ imports from the Hungarian market exceeded 170 million euros, being almost double compared to 2010 and +49.4% compared to 2015.

And the Netherlands represents an important supplier of meat and organs for Romania with a value of 81.1 million euros in 2020 (+49.9% compared to 2010) as well as Poland which reached a value 7 times higher in 2020 compared with 2010.

France is among the last in the ranking with a value of meat and organ exports to Romania of 8287 thousand euros in 2020, down 67.1% compared to 2010.

The 10 countries presented in figure 1, provided in 2010 over 91.5%, respectively 93.5% (in 2015, 2020) of the total meat imported into Romania.

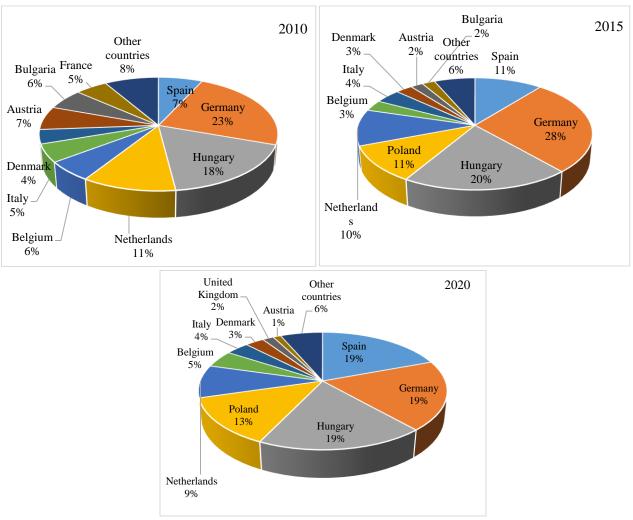


Figure 1. The structure of Romania's meat and organ imports by the main supplying countries, in 2010, 2015 and 2020.

Source: Own calculation based on TRADE MAP data

Regarding the value of the export of meat and organs, according to statistical data (Trade Map) in the period 2010-2020, Romania reaches a maximum value in 2017 exceeding 281 million euros. In the following period, a substantial decrease is noted, reaching in 2020 a value of 195.1

million euros. Compared to 2010, the value of meat and organ exports increased by 55.1%, but compared to 2019, it decreased by 18.1% (table no. 2).

Table 2. The evolution of the value of exports of meat and organs in Romania, in the period 2010-2020

Countries	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average	C.var.*	Annual rate	2020/ 2010	2020/ 2015	2020/ 2019
	Euro thousand												%	%	%	%	%
Total export Romania	125824	212917	262072	227194	212570	247863	237078	281002	263703	238213	195107	227594.8	18.5	4.5	155.1	78.7	81.9
United																	
Kingdom	2415	7679	12082	18728	22896	39790	43917	42287	45048	37904	27354	27281.8	56.9	27.5	1132.7	68.7	72.2
Italy	10231	11200	8125	7112	12634	15686	15730	20576	29686	26842	23861	16516.6	46.6	8.8	233.2	152.1	88.9
Hungary	17471	29986	32944	45157	30495	18015	16448	17257	20325	21236	25130	24951.3	35.8	3.7	143.8	139.5	118.3
Bulgaria	48110	94255	97138	28342	25021	30666	27800	34179	31807	25014	26190	42592.9	63.5	-5.9	54.4	85.4	104.7
France	1969	3696	6273	14332	22996	29261	26049	24947	22417	26515	18828	17934.8	54.9	25.3	956.2	64.3	71.0
Netherlands	5211	12567	31644	30201	10363	10082	7719	19652	12066	10771	9581	14532.5	60.9	6.3	183.9	95.0	89.0
Belgium	5772	5107	5080	5300	5409	6115	4620	6636	6762	7558	6349	5882.5	15.0	1.0	110.0	103.8	84.0
Greece	3529	10259	19608	16378	17741	21854	21781	18115	12883	11394	6437	14543.5	42.2	6.2	182.4	29.5	56.5
Slovakia	5006	3173	2882	6359	6346	2489	610	1758	2500	3771	3966	3532.7	51.2	-2.3	79.2	159.3	105.2
USA	0	0	0	0	0	0	0	0	91	1804	4032	538.8	237.1	-	-	-	223.5
Germany	2729	7035	9281	12964	13362	12205	7214	5983	7672	5268	3914	7966.1	45.3	3.7	143.4	32.1	74.3
Austria	890	2557	5283	4638	3136	4177	4337	4103	4001	4545	3258	3720.5	192.0	-	-	-	186.0
Czech Republic	2169	1448	397	126	628	634	1629	3741	5007	4992	2651	2129.3	73.2	-7.4	46.1	23.6	31.2
Kuwait	0	0	0	0	0	0	0	423	703	2009	3737	624.7	56.9	27.5	1132.7	68.7	72.2
Jordan	8062	5899	229	2529	2276	15734	5580	16658	12033	11906	3719	7693.2	46.6	8.8	233.2	152.1	88.9

Source: own calculation based on TRADE MAP data

In 2010, Romania exported meat and organs mainly to Bulgaria worth 48.1 million euros (with a share of 38%), Hungary and Italy, with values of 17.5 million euros (14%) and 10.2 respectively million euros (8%). In 2015, the main market for Romanian meat was England with a value of 39.8 million euros (with a share of 16% of total exports), followed by Bulgaria with 30.7 million euros (13%) and France with 29.3 million euros (12%).

At the level of 2020, England ranks first as the main importer of meat and organs, with a value of 27,354 thousand euros (14%), followed by Bulgaria and Hungary with values of 26.2 million euros (14%) and respectively 25.1 million euros (13%).

It should be noted that since 2017, respectively 2018, Romania exports meat and organs to Kuwait and the USA in the amount of 3.7 - 4 million euros.

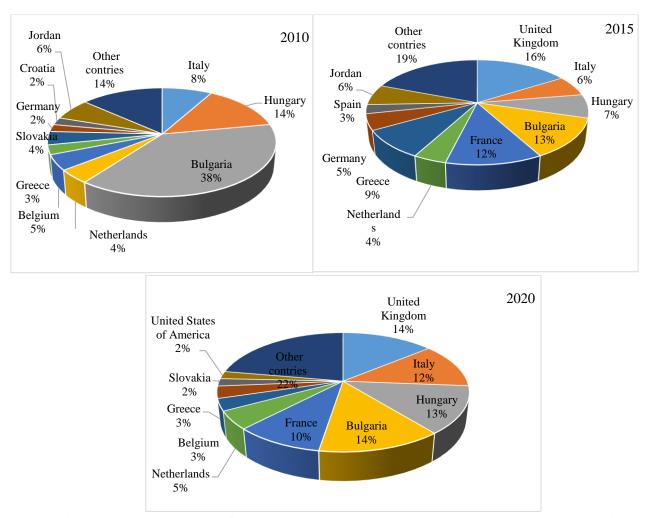


Figure 2. The structure of Romania's meat and organ exports to the main importing countries, in 2010, 2015 and 2020.

Source: Own calculation based on TRADE MAP data

Regarding the trade balance with meat and organs, a deficit can be observed throughout the analyzed period, the lowest being in 2012, of -216.1 million euros, and the most accentuated in 2020 of 717.3 million euros. (fig. 3)

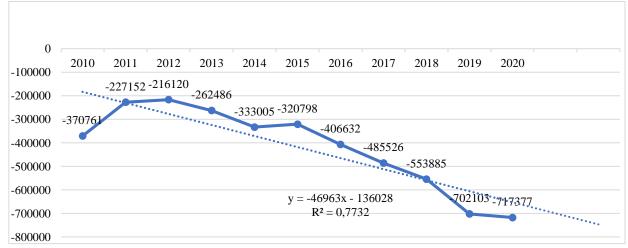


Figure 3. Evolution of the trade balance with meat and organs, in the period 2010-2020, th.

Source: processing based on TRADE MAP data

#### **CONCLUSIONS**

The animal breeding sector has undergone great transformations in recent years. Animal breeding is a tradition in our country, Romanians being big consumers of meat, especially pork. However, livestock numbers have decreased in recent years, with the exception of sheep and goats, which have increased. To cover this deficit and ensure meat consumption, Romania relies on massive imports.

The rate of evolution of Romania's export and import of meat and organs has determined a significant deepening of the deficit in these products, by 2.2% (15.3 million euros) in 2020, compared to 2019, and compared to 2010 it has increased with 93.5% (345.6 million euros).

The Covid-19 pandemic determined a lower economic activity, a fact that negatively influenced Romania's meat and organ trade, decreasing both external demand and domestic production.

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