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# DEVELOPMENT OF THE CATTLE RAISING SECTOR ON THE LONG TERM FROM THE PERSPECTIVE OF TRADE WITH LIVE ANIMALS

MARIANA GRODEA<sup>1</sup>

**Abstract:** *In the period 2003-2017, Romania's exports of live cattle significantly increased, both in the intra-Community area (twice) and mainly in the extra-Community area (9 times). The import from the intra-Community area, mainly consisting of reproduction animals doubled in the period 2007-2017, as against the pre-accession period. From the food security perspective, beef is not a traditional product in the Romanian consumers' diet, yet with its share of 9.3% in total meat consumption structure in the year 2016, it is an important product for dietary diversification. Of course we cannot speak for the moment about a beef market in Romania that can constantly absorb the domestic beef production at profitable prices, yet the foreign demand is sufficient for the Romanian farmers to continue and initiate new investments on beef farms. From this point of view, the paper intends to identify new development opportunities for the sector on the long term, both for relaunching domestic production and consumption increase and for creating export availabilities.*

**Keywords:** *trade with bovines, herds, production*

**JEL Classification:** *Q10, Q13, Q19*

## INTRODUCTION

The world beef production (carcass equivalent) was up by 61.6 million tons in 2017 as against 2016 (+1.8%), mainly due to the increase of production in Argentina (+6.7%), the United States (+3.7%) and Brazil (+2.9%).

Beef imports worldwide increased from 7705 thousand tons in 2016 to 7953 thousand tons in 2017 (+3.2%). In the year 2017, 39.5%, i.e. 3149 thousand tons of beef production, at world level, was absorbed by the United States, China and Japan, which are the main three great importers on this segment [1]. USA is at the same time the largest beef producer and consumer in the world, as well as the greatest beef importer (17%). The main beef suppliers for the USA are Australia and Canada, as well as New Zealand. Yet the most important growth of beef imports in recent years was in China and Hong Kong, due to the significant growth of beef consumption, the forecasts indicating a continuous increase of beef demand in China, under the background of stagnating domestic production.

Besides these three great importers worldwide, there are also countries like Canada, Mexico, Venezuela, Chile, Egypt, Malaysia, Saudi Arabia, Philippines, Iran, Israel and Taiwan, where beef demand is increasing, resulting from the economic growth behind the increase of the much more diversified beef consumption, consisting of a wide range of beef-based products and, in certain cases, the insufficient production that cannot cover the domestic needs in these countries.

Beef exports worldwide will continue to rise due to the ever-increasing demand in the Asian countries [2]. The estimates for 2018 being 10565 thousand tons, as against 9969 thousand tons in 2017 (+ 0.9%). The most important three exporters in the year 2017, with a total volume of exports of 5191 thousand tons (65% of total exports) were Brazil (1856 thousand tons), India (1849 thousand tons) and New Zealand (1486 thousand tons).

## MATERIAL AND METHOD

The researches for the period 2007-2016 focused on a broad area of study and had as main objective the identification of Romania's advantages and disadvantages in the trade with live animals. For this purpose, data were collected, processed and analysed, referring to the trade with

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live cattle between Romania and the EU-28 member states and non-EU countries. The performance indicators were also analysed in the cattle raising sector from Romania, i.e. beef production, cattle herds, beef consumption as well as self-sufficiency in this product, from the perspective of finding solutions to support the development of the sector on the long term, both for meeting the domestic needs and to face the challenges at European and world level. In this approach, we used the foreign trade statistical data provided by the National Institute of Statistics, EUROSTAT and FAOSTAT. The documentation and synthesis of the main ideas necessary for this study were based on the consultation of national and world literature in the field of trade with live cattle.

## RESULTS AND DISCUSSIONS

At the European Union level, in the period 2007-2016, bovines accounted for between 35.5% (2007) and 33.5% (2016) in total value of animals [3]. The main countries that together contributed by 57% in the total value of bovines, in the year 2016, were France, United Kingdom, Germany and Italy. These countries together account for 57% of slaughter meat production of the EU and have 52% of the beef cattle herds slaughtered in specialized units (Table 1).

Table 1. Main beef producers in the European Union (slaughter meat)

	2007-2009 average		2010-2012 average		2013-2016 average	
	Share (%)	Rank	Share (%)	Rank	Share (%)	Rank
France	18.7	1	19.4	1	19.2	1
Germany	14.8	2	14.9	2	15.0	2
Italy	13.4	3	13.1	3	10.5	4
United Kingdom	10.7	4	11.7	4	11.7	3
Romania	1.8	11	0.4	20	0.5	19

Source: DG Agri

Romania's slaughter beef production (carcass weight) permanently decreased in the period 2007-2016, both in volume and in value terms, as compared to EU-28 production: in the year 2016, Romania ranked 15<sup>th</sup> and 16<sup>th</sup> respectively in EU-28, by number of slaughtered bovines and beef production, this situation being explained by the low slaughtering weight.

The lower the weight at slaughtering (2017), like in Romania's case (215 kg/head as against 295 kg/head – EU-28 average), the lower the beef production. The poor quality of carcasses results from the fact that in Romania the cows have a very high share in the category of adult animals (59.9%), as against the EU-28 average, where cows account for only 31.2% (Table 2).

Table 2. Structure by age of bovines slaughtered in slaughterhouses, in Romania and in the European Union, in the year 2016 (%)

Age category	European Union	Romania
heifers	15.1	3.7
cows	31.2	59.9
bulls	31.3	14.1
bullocks over 1 year	9.2	2.1
calves 8-12 months	5.0	17.3
calves under 8 months	8.2	2.9

Source: Eurostat

A negative aspect noticed in Romania, compared to the European Union, is the fact that the slaughter weight of categories "bulls" and "bullocks over 1 year" is lower in Romania, compared to the EU-28 average (Table 3).

Table 3. Average weight at slaughter by categories of age of bovines slaughtered in specialized units, in Romania and in the European Union, in the year 2016 – kg/head (carcass weight)

Age category	European Union	Romania
heifers	301	170
cows	310	228
bulls	366	235
bullocks over 1 year	367	240
calves 8-12 months	225	199
calves under 8 months	142	104

Source: Eurostat

Although beef production (animals for slaughter for human consumption) was down from 163 thousand tons carcass weight in 2007, to 101 thousand tons carcass weight in 2016 (-38.1%), we can mention as a positive fact that in the same period beef production obtained in specialized slaughter units (slaughterhouses) had an upward trend, and its share in total production for slaughter meat for consumption increased from 26.6% in 2007, to 57.1% in 2016.

For the next period, having in view the legislative measure establishing minimum operation conditions for low-capacity slaughterhouses (2017), we expect a steady increase of slaughter meat production.

Under the background of the domestic production decrease, corroborated with the fact that beef does not represent a traditional product in Romanian consumers' diet, the share of beef consumption also decreased in the structure of total meat consumption, from 17% in 2000, to 12.8% in 2007 and 9.3% in 2016 [4].

As regards self-supply level (indicator expressing the self-sufficiency rate), self-sufficiency in beef decreased both in the European Union and in Romania, in the period 2000-2015, from 103% to 99%, and from 99% to 80% respectively [5].

According to the calculations made on the basis of Eurostat statistical data, at intra-Community level, in the year 2016, in the *export of live bovines*, in value terms, Romania ranks 6<sup>th</sup> (with 2.67%) in the hierarchy of EU-28 countries and 15<sup>th</sup> (0.56%) *in the import of live bovines* [6].

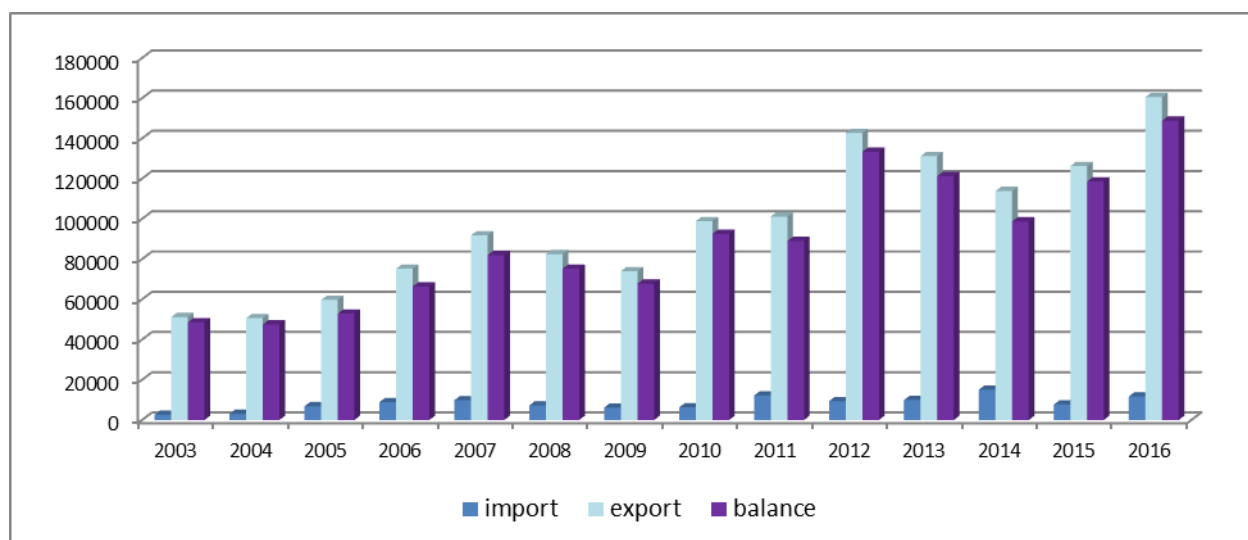
In the year 2016, at extra-community level, the main destinations of Romania's exports were Israel-46%, Lebanon-16%, Turkey-13% and Jordan 9%. At intra-Community level, the Romanian exports were directed to Croatia -56%, Italy-11% and Hungary-11%.

The import of live bovines had as main EU suppliers Germany-39%, followed by Hungary-17%, the Czech Republic-11% and France-10%.

The most important category of live bovines imported from the intra-Community area was represented by the category "live breeding animals". Although as share in total live bovines, this decreased from 67.5% in 2012, to 44.2% in 2016, we can conclude that the import of live bovines was mainly directed to breeding animals with high genetic potential.

In the period 2003-2016, the trade balance in live cattle was positive, the highest trade balance being reached in the year 2016 (148843 thousand euro), higher by 25% than in the previous year (Figure 1).

Figure 1. Trade balance – live cattle – 2003-2016 (thousand euro)

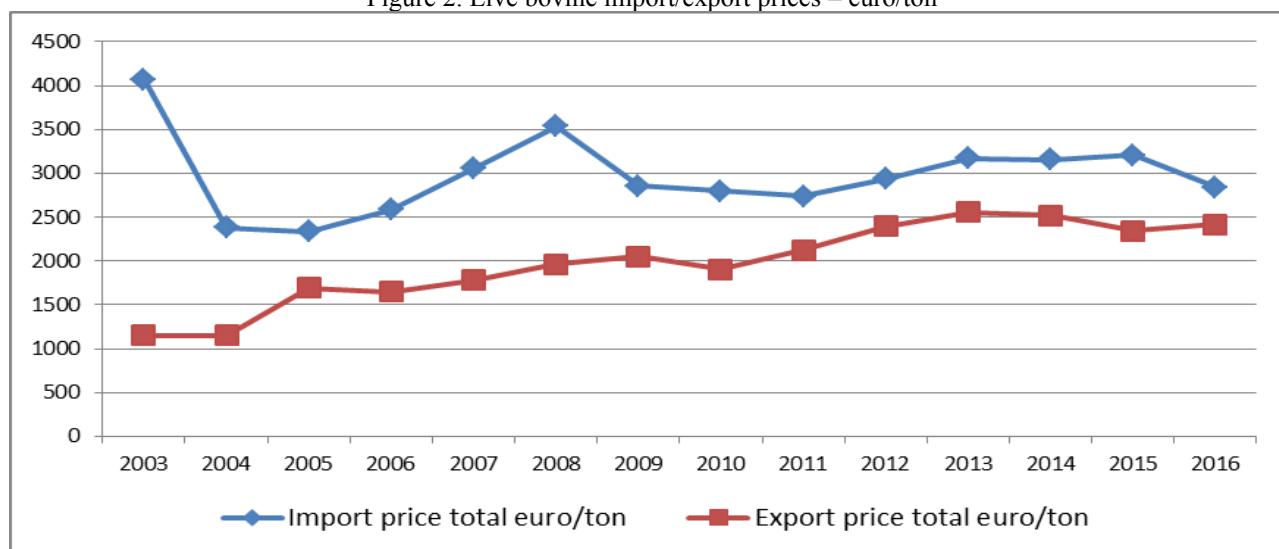


Source: <http://exporthelp.europa.eu>

In the period 2007-2016, the value of live bovine imports from the intra-Community area increased by 19%, while the value of exports decreased by 25%. The spectacular increase of exports to the extra-Community area is worth noticing, from 11.2 million euro, in 2007, to 100.2 million euro in 2016 (about 9 times).

As it can be seen from the figure below, live bovine import price is higher than the live bovine export price (Figure 2).

Figure 2. Live bovine import/export prices – euro/ton



Source: <http://exporthelp.europa.eu>

The largest amplitude was in 2003, when the import price was significantly higher than the export price, but since 2009, the two prices have had the tendency to get closer, so that in the year 2016, the difference was very low, i.e. 2844 euro/ton – import price and 2420 euro/ton – export price.

In dynamics, in the period 2003-2016, the import price followed a significant decreasing trend, from 4072 euro/ton to 2844 euro/ton (-30.1%). As regards the export price, we mention the increasing trend throughout the investigated period, from 1148 euro/ton in 2003, to 2420 euro/ton in 2016.

## CONCLUSIONS

Although beef production (from animals for slaughter for consumption) was down from 163 thousand tons carcass weight in 2007, to 101 thousand tons carcass weight in 2016 (-38.1%), the positive fact is that in the same period beef production obtained in specialized units (slaughterhouses) had an increasing trend, while its share in total slaughter production for consumption increased from 26.6% in 2007, to 57.1% in 2016.

Under the background of domestic production decrease, corroborated with the fact that beef is not a traditional product in Romanian consumers' diet, the share of beef consumption in total meat production also decreased, from 17% in 2000, to 12.8% in 2007 and to 9.3% in 2016.

The trade balance in live bovines was permanently positive in the period 2003-2016, with the highest trade balance in the year 2016 (148843 thousand euro), higher by 25% than in the previous year, due to the increase in imports of 1.7 times and in exports of 1.2 times.

According to calculations based on Eurostat statistics, at intra-Community level, in the year 2016, in the *export of live bovines*, in value terms, Romania ranked 6<sup>th</sup> (2.67%) in EU-28 and 15<sup>th</sup> (0.56%) in the *import of live bovines*.

The analysis of data and information reveals that among the main determinants of success on the export markets we can mention the better knowledge of foreign competitors and a higher quality of products compared to the similar products from foreign markets.

The main growth modalities of foreign trade with live animals and processed products are the following: diminution of production costs, increasing the processing level of products, increasing the quality of products and services for export, labour productivity growth, identification of niches and specialization of products that go to export, increasing the complexity and diversification of products for export, modernization and adaptation of export product presentation to meet the foreign market requirements.

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