Abstract: The reforms after 1990 induced severe disruptions in the supply chains for animal products. The new private sector emerged and developed slowly, and the domestic production was unable to either replace efficiently the old supply chains, nor to satisfy the domestic demand. Imports increased gradually, especially for the most important types of meat included in the Romanian food consumption model - pork and chicken. Overall, in the last two decades, meat was by far the main imported agri-food product. The paper is analysing the evolution of the Romanian trade in beef, pork, chicken, sheep and goat meat, both with the EU and non-EU countries, in the post-accession years, as compared to the pre-accession period. Despite significant expansion of both exports and imports, mostly after EU accession, Romania remained a net importer for meat, and particularly for pork and chicken; but is a net exporter for sheep and goat meat.

Key words: intra-EU trade, extra-EU trade; meat; Romania

INTRODUCTION

Animal husbandry sector has been traditionally an important part of the agricultural production. In the Romanian meat consumption model, pork is first (47.4%), followed by poultry (31.2%), beef (11.3%) and mutton (4%). After 1990, the meat chains have been disrupted, but at different paces. In the pork and poultry sectors, the restructuring of the enterprises aiming at making them able to function in a market-driven economic environment started about 8-10 years later as compared to the beef and sheep sectors. New production units emerged and are still increasing in number and production size, but they are still not able to cover the domestic demand. The only exception is the mutton and goat meat sector that covers the domestic demand (which is rather low). Consequently, after 1997, pork and poultry meat were among the agri-food products with the largest imports, followed by beef (but in significant smaller quantities); they still show negative trade balances in both value and quantity terms.

MATERIALS AND METHODS

The value and volume of trade flows were studied, in relation with the domestic production, for all types of meat. Subgroups at 4-digit level breakdown were used, in order to analyze the exports and imports by relevant product groups.

RESEARCH RESULTS

Meat production takes the largest part of the total animal output (48%), followed by the milk production. The pig sector is the largest (23% of the animal output), followed by poultry (12%), cattle (9%), sheep and goats (4%).

Since 1990, the total meat production showed a decreasing trend, but with a diminishing slope in the last five years, therefore the output volume has lately minor variations around an average value of 960 thousand tons (carcass weight) per year (table 1).
Table 1

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<tr>
<td>Total production (1)</td>
<td>1097</td>
<td>1013</td>
<td>992</td>
<td>932</td>
<td>1003</td>
<td>979</td>
<td>891</td>
<td>925</td>
<td>911</td>
<td>889</td>
<td>902</td>
<td>984</td>
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<tr>
<td>Total import (2)</td>
<td>224</td>
<td>302</td>
<td>433</td>
<td>470</td>
<td>388</td>
<td>437</td>
<td>432</td>
<td>361</td>
<td>295</td>
<td>318</td>
<td>298</td>
<td>349</td>
<td>381</td>
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<tr>
<td>% import / production</td>
<td>20.5</td>
<td>29.8</td>
<td>44.7</td>
<td>50.4</td>
<td>38.7</td>
<td>45.8</td>
<td>44.2</td>
<td>40.5</td>
<td>31.9</td>
<td>34.9</td>
<td>33.5</td>
<td>38.7</td>
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Notes: (1) Slaughtered meat, carcass weight, 1000 tons
(2) Total meat imports, carcass weight, 1000 tons


In the same period, the volume of imports varied, driven upwards by low import prices (in 2007 and 2008) and downwards by the drop in consumption due to the economic crisis in 2009 and 2010 which diminished the population’s income (figure 1).

The share of meat imports in the total Romanian agri-food imports decreased from a maximum of 25% in 2005, to 17% in 2007-2009, and stabilized around 10% since 2011.

Meat exports were very low in the pre-accession period, when they were worth about EUR 16 million per year (average 2003-2006), that being 5% of the import value, but they increased significantly after accession: EUR 68 million per year (average 2007-2010) and even more, up to EUR 232 million per year (average 2011-2016), thus pushing up the coverage of imports by exports from 5% before accession to 12% in 2007-2010 and up to 45% in 2011-2016. This significant increase in meat exports was achieved by sheep, goat and poultry meat (figure 2). The trade balance for meat has been all negative, but the deficit diminished from a EUR 688 million peak in 2008, down to about EUR 220 million in 2011-2012, just to deepen again in the subsequent years.
In the meat imports, the largest share is taken by pork (50-54% of the total imported meat after accession), followed by poultry meat (29-34%).

One can identify several features and evolution trends in the domestic meat production sector which resulted in such unfavorable meat trade trends.

In the early 90-s, the pork and poultry state-owned sectors (which were very large and in majority) were heavily subsidized, being considered as essential for the food security. Since 1997, the excessive subsidies were removed, and consequently both sectors were forced into restructuring. Most of the old state-owned units were not able to function in a market-driven economic environment, and they went bankrupt.

New production and processing units emerged, slower in the pig sector than in the poultry sector; nevertheless, the 8-10 years delay in the restructuring process as compared to the beef, sheep and goat meat production resulted in the incapacity to meet the domestic demand, which meant a surge in pork and poultry imports since 1997.

In the pig sector, very little investments went to breeding farms, therefore, except the very large professional pig husbandry units (which are breeding their own piglets), the rest of the farms were obliged to import piglets (less than 50 kg liveweight/head) to fatten them for meat production. The piglets were imported mainly from Hungary, Netherlands,
Germany, Slovakia and Denmark. An obvious consequence is the higher final price for pork carcass sold on the domestic market, which is as well higher than the price of imported pork meat. Another consequence is that the meat products producers choose to use as raw material cheap imported frozen pork. Last but not least, Romanian pork exports to the EU were hindered by the ban enforced between 2007-2013 due to the need to eradicate the outbreaks of pig pest (figure 3).

For the moment, pork exports are still extremely low, since the domestic demand for pork is not covered: the imported pork quantity in 2011-2016 was equivalent to 41% of the domestic production.

In the poultry sector, the restructuring period and delay until resumption of industrial production was shorter than in the pig sector. Many small and medium-sized units emerged, followed in the mid-2000 by several large breeding and processing enterprises, which slowly regained a good part of the domestic market. But in the meantime, the Romanian chicken meat had to face a fierce competition from imports originating from USA (in the early 90-s) and from Hungary in the late 90-s and early 2000 (while the Central European Free Trade Agreement – CEFTA – was in force). One should also mention that part of the poultry meat and offals imports that are coming to Romania are lower quality cuts, very cheap, since in the origin countries their consumption is low.

![Figure 4. Romanian trade in poultry meat](source: author’s calculations using Eurostat data [6])

After accession, Romania was able again to export poultry meat, and for a few years, the trade balance became positive, just to turn again negative in 2015-2016.

There are several problems identified in the beef sector which are important obstacles to the expansion of exports: more than ¾ of the beef carcasses are coming from slaughtering adult animals, of which half are old/reformed cows, consequently the meat is of poor quality; the average slaughtering weight of calves younger than 8 months is very low (45 kg/head), which is 1/3 of the EU average, and last but not least, Romania is exporting young calves (less than 150 kg liveweight), instead of fattening and finishing them up to the average EU weight (650 kg) [1].

One should mention that most of the imported beef is frozen: before accession, its share was 95%; after accession, its share diminished to 74% (average 2007-2016), since the demand for beef increased slightly among the Romanian consumers. The beef exports show an important variation (figure 5), since Romania is not yet a stable player in the international beef market due to the low quality of the meat.
Live cattle and live sheep are two of the very few agri-food product groups with a positive trade balance [2, 3], but this is rather unfavourable for the sector, since Romania is exporting “basic” products (such as live animals) and importing “processed” products (such as meat – which is a primarily processed product) or meat products (such as sausages, salami, canned meat, etc. – which are secondarily processed products), incorporating higher added value.

The only type of meat which shows constantly a positive trade balance is lamb, mutton and goat meat, mostly mutton exported to the Near and Middle East countries (figure 6).

Exports increased after accession, but expanded significantly since 2010, when Romania entered the Arabic markets with cereals, live sheep and mutton. Imports are just occasional, since the domestic production is by far sufficient to cover the low demand for such meat. In Romania, lamb and mutton is consumed mostly in the Easter Holidays, and the sheep and goats are reared mostly for their milk and only marginally for meat.

Exports in lamb, mutton and goat are limited also by the special sanitary and ritualic demands for slaughter from the Arabic customers, therefore they prefer to import from Romania rather live sheep than slaughtered meat.

All these trends analyzed above are resulting in an overall unfavourable self-sufficiency rate for meat in Romania (table 2).
In the post-accession period, important investments were performed in the animal husbandry and meat processing sector, using mostly EU and national funds through the National Rural Development Programs (NRDP). It is thus likely to expect in medium term a constant upward trend in the animal and especially the meat production [4], in order to increase the coverage degree of the domestic demand from domestic production and improve the availabilities for export.

**CONCLUSIONS**

The fundamental changes in the ownership and production patterns in animal husbandry occurred in 1990 induced severe disruptions in the supply chains for animal products (meat, milk, eggs). The needed restructuring of the sub-sectors came at various paces, hindered by the heavy subsidizing of non-efficient state-owned enterprises. The pre-accession support programs (such as SAPARD), and the post-accession NRDP helped the renewal of the animal sector. Yet, there are still important problems linked to the lower efficiency as compared to the other EU both new and old Member States. The producers’ aversion to association is hindering the opportunities for economic operation concentration. As a result, the international competitiveness of the Romanian animal products is rather low, except for the live cattle and sheep, as well as for lamb and mutton.

**REFERENCES**

[7]. http://www.insse.ro/cms/ro/search/node/tempo/