

DYNAMICS AND ROMANIA'S PARTNERS IN TRADE OF LIVE ANIMALS

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Abstract

The paper was focused on the sector of trade and meat consumption in Romania. Data are presented at national level and covers a period of 10 years; they come from the Ministry of Agriculture and the National Institute of Statistics of Romania. We presented an analysis of the trade in live animals, according to Romania's main trading partners, the dynamics of household consumption of three types of meat and we present a detailed analysis of the three most important sectors in the trade with live animals. The methodology has also included the study of seasonality of total import and export of live animals and separate of Live cattle trade sector. The findings were that, although the trade in live animals in Romania shows a positive balance, looked in detail, the sector has a significant imbalance between the different categories of animals. So, we could appreciate the fact that the positive balance of the entire trade in live animals is, in fact, supported only by exports of cattle, the other directions having a slight contribution. In terms of seasonality, we identified for imports, positive seasonal deviations in the 2nd quarter and for exports in the 3rd and the 4th quarter.

Key words: dynamics, live bovine, partners, Romania, trade

INTRODUCTION

We have been focused in the present paper to analyze the trade in live animals made by Romania in total and detailed in three categories. The items in the database were classified according to the Official Journal of the European Union ((EC) No 1214/2007), Annex I from the Combined Nomenclature, into six categories: (0101) Live horses, asses, mules and hinnies, (0102) Live bovine animals, (0103) Live swine, (0104) Live sheep and goats, (0105) Live poultry, ducks, geese, turkeys and guinea fowls, (0106) Other live animals. Meanwhile, it has been studied the trade with the EU. In this respect we presented imports and exports with live animals cattle, swine and Live poultry, ducks geese, turkeys. Meat consumption in Romania is in between the average levels for Europe, but meat consumption structure differs from other countries in the region. Therefore, we thought that there may be a connection between the Romanian trade in live animals and meat consumption. In terms of trading

partners, we mention that Romania has a number of enhanced contacts and at least in recent years, partner countries are largely the same. In order to present the main purposes related to the situation of Romanian commerce, we have presented below several statements about this subject. Thus, Lijie S., Chao C. and Linhai W., (2011) had comments on the aims of trade as "It is important to promote agricultural export, drive employment of rural labor, help farmers to increase their income and optimize industrial structure of agriculture". Other authors were concerned about their own country and studied the consumption of meat; thus, Rossi P. and Kagatsume M., stated in 2009 that "The goal of the measure is to ensure Argentine consumers have adequate supplies of beef at affordable prices". A paper in which has been studied live animals trade, Neculita M., Sarpe D.A., Cristea V., Xiaoshuan Z. and Moga L.M., (2011), affirmed that, "Concerning the evolution of the current account balance and Romania's trade balance, it is a known fact that in the countries where the customs protection is extensive and the

strategies for the substitution of imports do not succeed in achieving their goals, the abolishment of the customs fee will inevitably result in a significant increase in imports”. There were some other authors who studied from a more general point of view the trade, like Berna T., Cihat G., Canan A. and Bülent M., (2010) “The process of globalization leads countries to adjust their agricultural policies toward more competitive markets...and therefore, firms or countries need to adapt their future production and commercial strategies according to these developments”. At the same approach, Kuppusamy J. and Anantharaman R.N., (2012) stated that “Due to the high linkage between the measures of export development with export performance, it is proposed that export performance might influence export development direction in the future”. At their turn, Hausmann C. and Patrick S., (2013) have been seen that “Trade also is likely to facilitate matters in the world by making better use of stressed and finite resources to feed a growing and more prosperous population as experts predict more extreme weather events across the globe”.

Viorică E.D., (2012) has had a more applied study and stated that “For the foreign trade, the gravity model analyses the determinants of bilateral trade flows, the goal being the

development of more precise predictions on the bilateral trade”.

MATERIALS AND METHODS

The methodology used in the present study was to analyse the dynamics of the live animals trade. There were also some representations on the trade and the Romania’s trade partners. Presentations on the database have been made on the trade with the European country. The last part of this paper is focused on the seasonality of the trade with live animals on the global level. And because of its structure and due to the fact that the majority of the exports are made with these products, there was also an approach on the cattle trade level.

RESULTS AND DISCUSSIONS

We approached the first phase of work analysis on the dynamics of trade in live animals at global level, and what you can see in the chart that follows is that during the period, the volume of imports exceeds exports, and this generates a positive balance. This is one of the few categories of trade surplus in Romania, knowing that overall our country is seen as a net importer of food products.

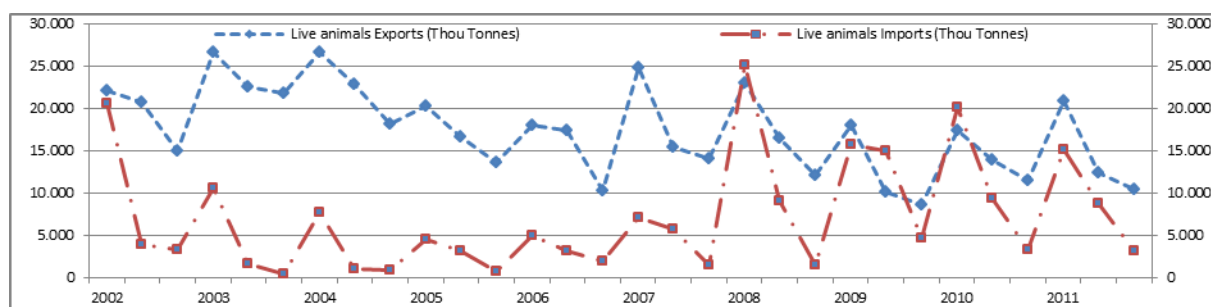


Fig. 1. Romania’s Live animals trade, 2002-2011

Regarding Romania's trading partners for trade of live animals, these are detailed in the following graphs (Fig. 2 and Fig.3). Thus, we estimate that there are 12 partners with whom our country develops its trade, especially with

live cattle. Croatia is ranked first with a volume of 128.129 thou tonnes, Syria (76.874 thou tonnes), Greece (62.719 thou tonnes), Italy and Spain, each with a volume of 32 million tonnes of live bovine animals.

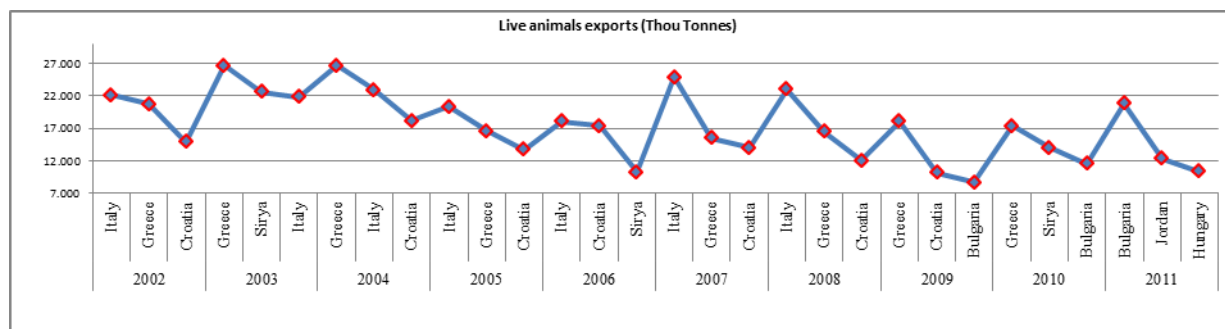


Fig. 2. Romania' Trade partners in Live animals exports, 2002-2011

We thus find here a number of partners because they are present constantly and so we can talk about strengthening trade relations with these countries. Regarding imports, traditional partners of our country are Hungary (129.693 thou tonnes), with all kinds of live animals, the Netherlands (57.161 thou tonnes), Germany (20.066 thou tonnes), with

imports especially cattle and pigs on entire period. We have also recorded the Czech Republic (10.707 thou tonnes) by 2007 imports of pigs and chickens and after this year, France (5.679 million tons) with cattle imports until 2007 (the year of our country's accession to the E.U.) and pigs after this year.

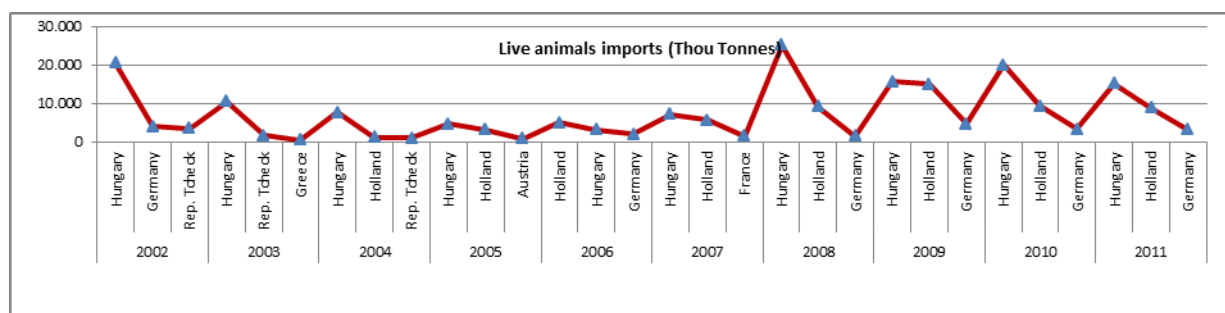


Fig. 3. Romania' Trade partners in Live animals imports, 2002-2011

When referring to the value of trade, exports top three ranking countries are : Italy totalling in the 10 years analyzed worth U.S. thou \$ 421991, Greece-U.S. thou \$ 397170 and Bulgaria with U.S. thou \$ 205443. Hungary imports country ranks first in the standings with a value of U.S. thou \$ 288.932, followed by the Netherlands (U.S. thou \$ 172069) and Germany (U.S. thou \$ 45748). In order to define a more complete picture of link to

livestock sector, we have presented in the following (table 1) the average monthly consumption of meat per person in Romania. The largest consumption is for chicken growing in the period 2002-2012, it reached 1.544 kg per person. Next in descending order, meat products, pork, fish and finally, the lowest category of meat that is consumed by the Romanians is beef.

Table 1. Average monthly consumption of food per person, Romania (Kg)

Main categories of meat consumption	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Poultry	1,062	1,121	1,098	1,198	1,262	1,34	1,418	1,499	1,52	1,522	1,544
Meat	0,839	0,894	0,945	0,958	1,003	1,05	1,111	1,106	1,068	1,023	1,038
Pork	0,720	0,790	0,859	0,761	0,799	0,869	0,899	0,891	0,904	0,939	0,986
Fish	0,363	0,376	0,426	0,467	0,505	0,547	0,596	0,636	0,665	0,643	0,631
Beef	0,277	0,295	0,33	0,322	0,34	0,393	0,405	0,366	0,325	0,28	0,274

Source: www.insse.ro

The latter is relatively constant throughout the period, and we may assume then, that in the last 11 years, consumer preferences related to this product have not changed very much.

Regarding the same database on the meat consumption, but spitted by the residences area, the meat consumption is a bit more higher in the urban than in the rural areas (www.insse.ro). In the next part of the paper, we have focused on the three main categories (bovine, pork and poultry), volume of the total

trade and the trade with the European Union during the 2002-2011 periods. As it has shown below, after the European adhesion, the volume of the imports has registered a different trend as the one before the 2007 year. Among the three categories, only the Live poultry, ducks, geese, turkeys increased constantly its volume. Live bovine decreased a bit the volume for a year (2008) and after has become to growth.

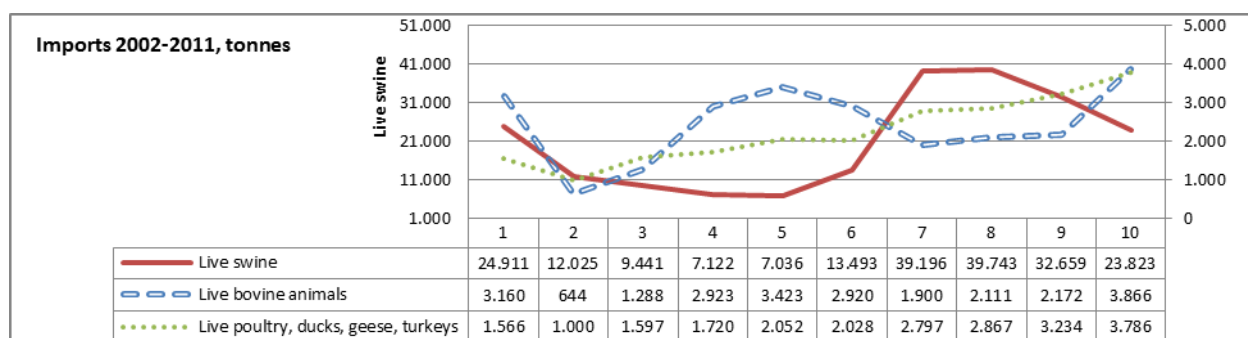


Fig. 4. Volume of Live animals imports, Romania, 2002-2011

If for the imports, the volumes are quite dynamic, the exports of the three categories chosen to be studied here, recorded a quite particular trend. In fact, Live poultry and live

swine is almost nonexistent, live cattle exports grow continuously getting to double the volume until 2007, then fluctuates, but still remains high (with the exception of 2009).

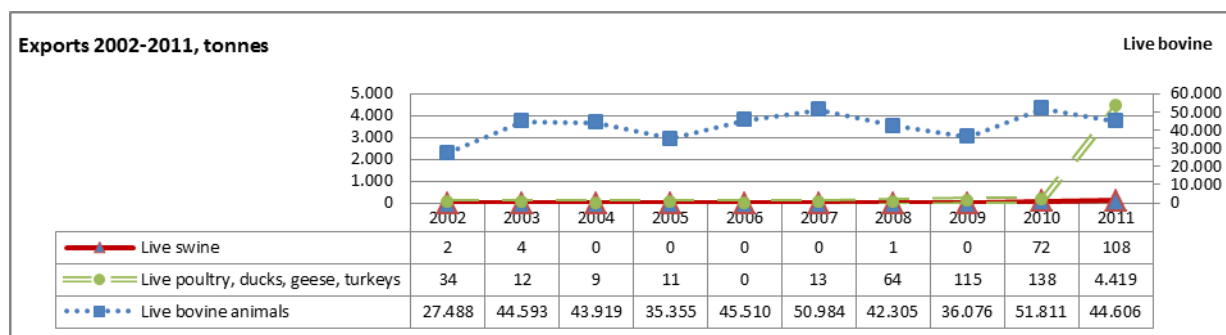


Fig. 5. Volume of Live animals exports, Romania, 2002-2011

As part of Romania's total trade with food products, exporting live animals entered a downward slope from 2003 until 2006, after growing for a year and then fall back on the downward trend. Imports accounted for a share slightly increasing since 2003, until 2009, then follows a slightly downward trend. As a share of total trade with food products, the trade of live animals developed with

European countries, of course it will curve similar to that of total trade in live animals. Since it is a fairly consistent part of the total trade between Romania and EU countries, this has features similar to the evolution of total trade in this category. We can see in the figure below (Fig. 8), imports from EU countries on three categories.

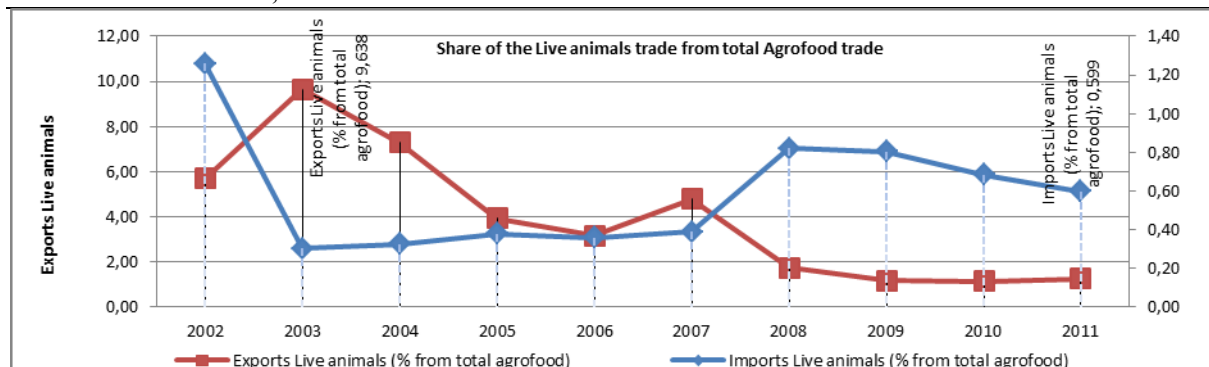


Fig. 6. Share of Live animals trade from the agrofood trade, 2002-2011, %

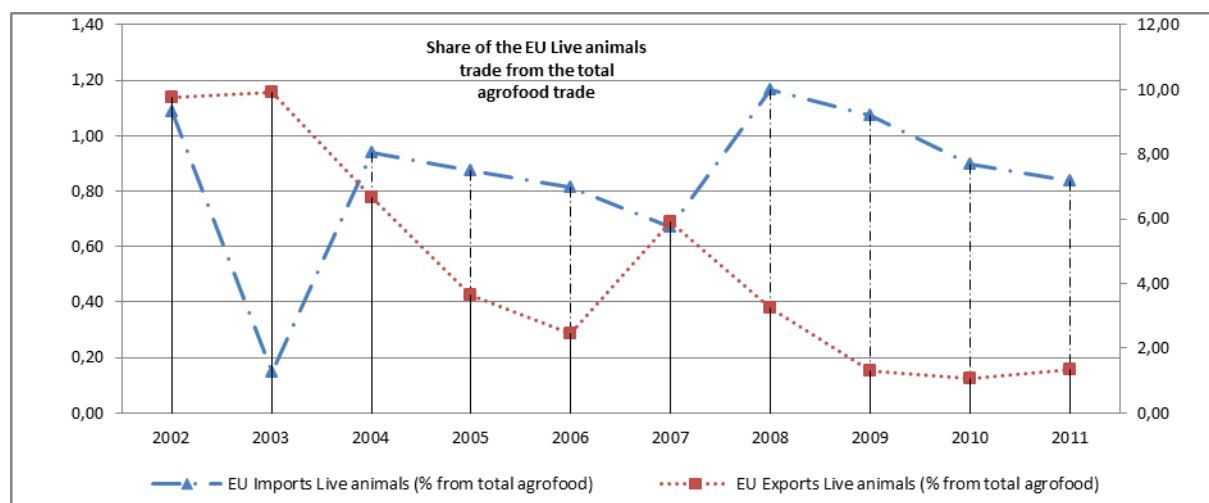


Fig. 7. Share of E.U. Live animals trade from the total agrofood trade, 2002-2011, %

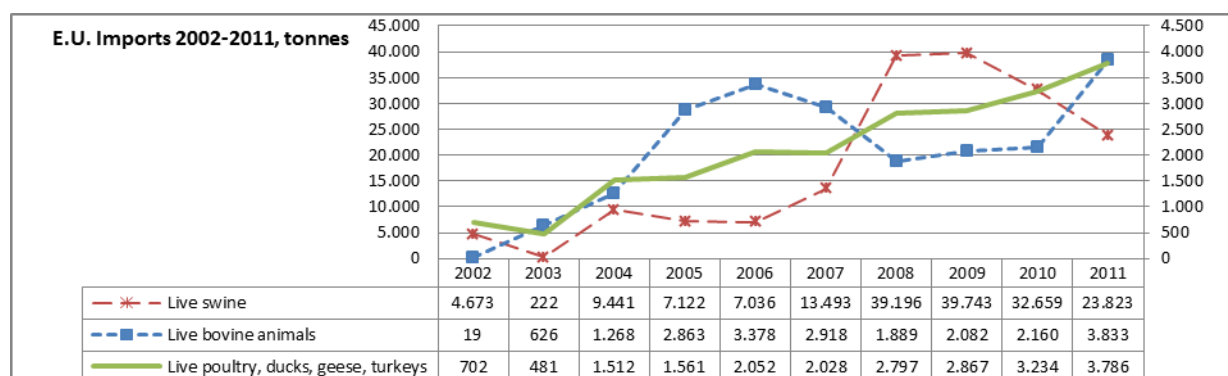


Fig. 8. Volume of EU imports, 2002-2011, tonnes

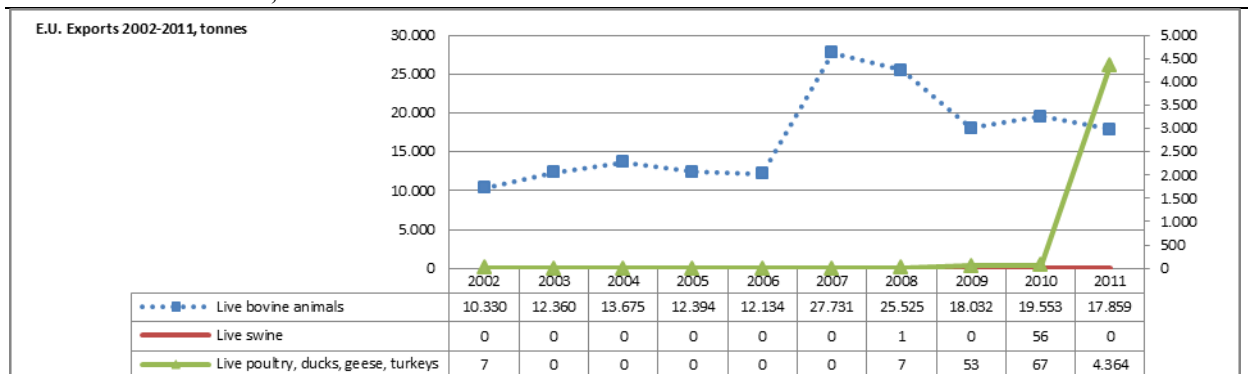


Fig. 9. Volume of E.U. exports, 2002-2011, tonnes

The last part of this paper is devoted to the analysis of seasonality. This was done using two methods (additive method, AM and multiplicative method, MM) for total Live animals and for the Live cattle category. We chose this category because it is the only one

of interest here with the volume of trade that is really important. In fact, if these trade flows shows a positive balance, this is because of the volume of live cattle trade, the other having a not important weight.

Table 2. Seasonality index, Live animals and Live bovine, 2002-2011, Additive (AM) and Multiplicative (MM) Method

Seasonality Index (Additive model and Multiplicative method)					
	Quarter	Imports		Exports	
		Live animals	Live bovine	Live animals	Live bovine
Average of gross seasonal deviations (AM)		-57.7	-14.2	-39.3	17.1
Corrected seasonal changes (AM)	Q I	-619.6	30.1	-7,852.0	-1,653.4
	Q II	138.5	39.5	-701.1	-94.6
	Q III	562.7	-140.7	4,893.4	126.5
	Q IV	-81.5	71.1	3,659.7	1,621.5
Average of gross seasonal indicators (MM)		0.97	0.72	0.97	0.99
Changes in seasonality (MM)	Q I	-10.6	-6.0	-32.0	-15.3
	Q II	9.0	56.08	-0.30	-0.1
	Q III	9.6	-14.6	24.4	1.3
	Q IV	-6.3	-20.2	18.5	16.6

Source: own calculations

Graphical representations of the results obtained from the analysis of seasonality are

presented in the following graphs (Fig.10 and Fig.11).

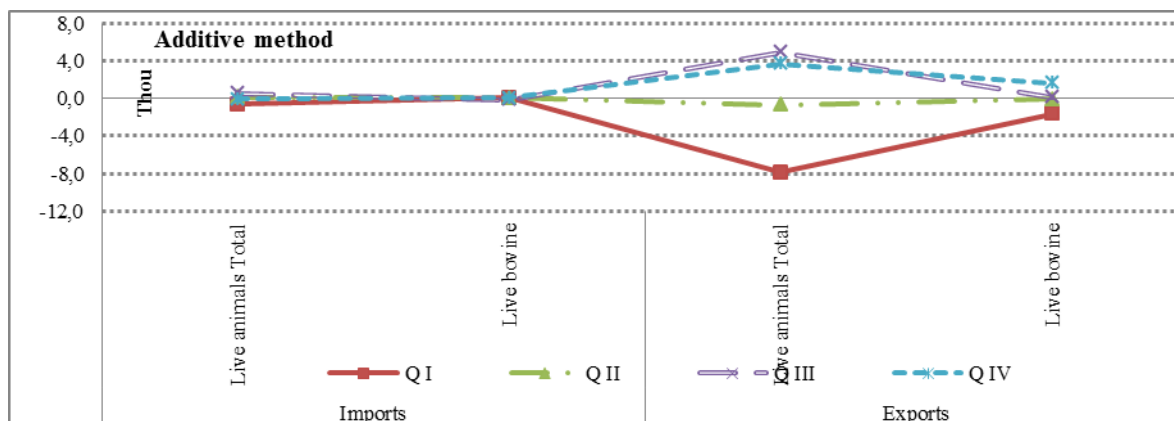


Fig. 10. Index of seasonality, additive method, Live animals and Live bovine

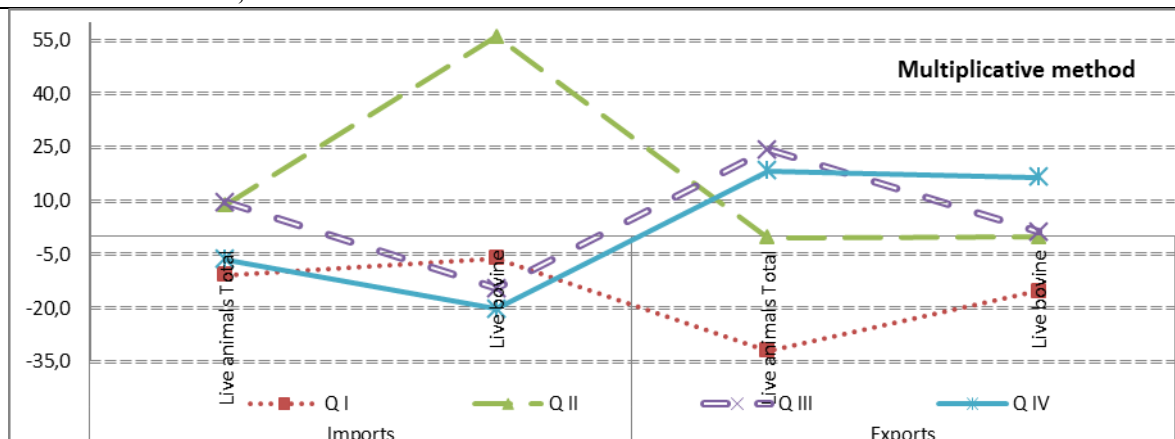


Fig. 11. Index of seasonality, multiplicative method, Live animals and Live bovine

CONCLUSIONS

From the analysis results we concluded the following. Romania's traditional partners are well consolidated in terms live animals trade. While the analysis of trade in live animals shows that imports are made mostly engaged with live swine, there is also active an imports with live cattle and poultry, ducks, geese and turkeys. These last two sectors are each one, a relatively constant volume over the 10 years analyzed. Regarding exports, the situation is different. Of the three categories analyzed, only live bovine animals is enormously important and is done mainly the basis of the positive balance of the entire trade of live animals. Over the 10 years analyzed, the volume of imports of cattle recorded an average growth rate of 3.4 % per year, and exports an average rate of increase of 6.23 % per year. Seasonality analysis pointed us for exports (live animals and live cattle) negatives seasonal adjustments in the first and second quarters. Imports of live animals have positive adjustments, by additive method, in second and third quarters, while imports of live cattle, average adjustments from the trend are negative only in the third quarter.

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