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# THE EVOLUTION OF ROMANIA'S TRADE (2002 - 2014): HIGHLIGHTS AND STRUCTURE

Empirical  
study

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## Keywords

Trade  
Exports  
Imports  
Balance of trade  
Trade structure

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## JEL Classification

F10, F14, F15

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## Abstract

*The current paper aims to succinctly highlight and discuss the evolution of Romania's foreign trade between 2002 and 2014, in relation to the process of European Union integration during the same temporal period, evolution considered under both the quantitative aspect (trade volume) and as well under a qualitative dimension (the structural changes underwent by the Romanian trade, as a direct consequence of the changes that occurred in economy). In order to emphasize these relations and for the purpose of achieving relevant insights into the influence that EU integration had on Romanian economic development, we synthetically analyzed the evolution and structure of Romanian international trade as inflows and outflows (imports and exports) and, consequently, the transformations that characterized the Romania economy after 2000.*

### Introduction and overview

Given the fact that the present research is intended as an empirical study, and less as a theoretical approach, consequently the emphasis will be on the empirical, practical indicators further detailed below, and not on the concepts that frame and encompass the broader area of trade and economic development (e.g. trade gravity model, Heckscher-Ohlin model, Balassa index, absolute entropy index, comparative export performance etc.) and economic development in general.

Thus, while it's well understood and established the fact that the European Union had a substantial and positive effect on Romania's trade and economy as a whole (Hoekman & Djankov, 1997; Giurgiu, 2010) the focus of this paper will be on the structural changes that the Romanian trade experienced during the aforementioned time period (from 2002 until now).

For instance, even in 1995, processing activities (outward processing trade) accounted for almost one-third of Romania's exports to the European Union, up from only 13 percent in 1989 (Hoekman & Djankov, 1997). Nevertheless, regarding Romania's economic evolution against other Central and East European economies, the level of FDI was, in the mid-nineties, still insignificant (compared to Poland, for example). Consequently, Romania changed significantly the composition of its exports under the influence of a multitude of factors, the most important being the process of globalization – understood as continuous progress in international cooperation, including trade, capital flows, technology transfer and labor movement (Matkowski & Próchniak, 2007) and integration into the European Union.

Concerning the trade dimension, European Union is a major trading partner for Romania since the 1990s, Romania's trade relations integration with the EU started back more than 20 years ago, with the signature of the Europe Agreements in 1993, and, in the meantime, the process of integration with the EU has had a considerable impact on Romanian trade (Montanari, 2005) leading to the present state, in which EU accounts for two thirds of all trade flows concerning our country.

A number of studies point out that, overall, the new accession countries show a significant economic convergence toward the EU in terms of income levels and growth rates, and, in addition, the new members tend to develop faster than do the older EU countries (Matkowski & Próchniak, 2007).

Further on, an analysis (Škufli & Botri, 2008) of intraindustry trade between Romania (among other Central and Eastern European countries) and the European Union based on the combined nomenclature four-digit level from 1996 to 2004 shows unequivocally the benefits of trade expansion due to trade liberalization in the long run, as the economic integration – and

interdependence – with the EU has increased. Also, in the long run trade relations there is a tendency toward a more symmetric and less polarized distribution of trade index, thus confirming the Heckscher-Ohlin model (Fert & Soós, 2008).

During the second half of the nineties and the first years of the XXI century Romania had a rather concentrated trade pattern (Yilmaz, 2005), more than 50% of the exports being directed to the European Union. In that regard, a 2005 study (Yilmaz, 2005) pointed out that that Central and Eastern European countries like Hungary, Czech Republic and Poland had a comparative advantage in difficultly imitable research-oriented goods (know-how intensive goods) over Romania, while on the other hand Romania enjoyed a strong competitive position within the EU with respect to the labor-intensive sector, this being one of the reasons for FDI inflows after 1998. The next step came naturally, as local enterprises took advantage of the opportunities represented by the foreign inputs and know-how in order to improve the quantity and quality of their products, therefore expanding their export market share in the European Union.

As a direct exemplification, the automobile sector played a key role in the core economic integration of Central and Eastern European countries – including Romania – in the past decade (Lefilleur, 2008), with positive consequences spanning on multiple levels, contributing to the economic development of those countries as whole. Also, as a corollary, as the recent economic recession has showed, the Romanian economy remains vulnerable to external shocks (Savoiu, 2012).

Not the least, we've chosen the year 2002 as a starting point for my research because it was the first year for which reliable, consistent and detailed official data are available.

### Methodological considerations

The following notions we consider to be of essential importance in order to easily understand the upcoming analysis:

The value of exported and imported goods is set up based on actual FOB prices for exports and on actual CIF prices for imports.

The FOB price (Free on Board) represents the price at exporter country border, including the value of goods, as well as the cost of transport and its insurance until the border of exporting country, according to Incoterms 2010 rules (ICC, 2010)

The CIF price (Cost, Insurance, Freight) represents the price at importer country border, including both the components of FOB price, as well as the insurance and international transport costs till the border of importing country, according to Incoterms 2010 rules.

By balance of trade we mean the difference between the value of exports and the value of imports (commercial deficit) usually calculated on an yearly basis.

Goods which are subject to international exchanges are classified according to the Combined Nomenclature (CN), on which the community (the EU European Common Market) customs tariff is also based.

In order to achieve the proposed goals of this brief analysis, we chose the following indicators as best suited to describe the trade phenomenon:

- Value of exports (FOB prices)
- Value of imports (CIF prices)
- Trade balance (FOB exports – CIF imports)

Added to that, for the qualitative dimension, we have:

- Structure of exports/imports by goods, as detailed by the CN
- Geographical orientation of Romania's trade (top ten trading partners for exports and imports)

All the nominal values, expressed in the Euro currency (€), are inflation adjusted.

#### **Patterns of trade (2002 – 2014): evolution of exports, imports and the commercial deficit**

In order to better understand the transformative, substantial changes the Romanian economy underwent during the early 2000s, as reflected by the trade variables established above, we used four temporal snapshots: 2002, 2006, 2009 and 2014, each year meant to highlight the relevant evolutions and differences.

##### **Trade in 2002**

In the year 2002, FOB exports of Romanian economy accounted for 13659,69 million € an increase by 21,8% compared to 2001 (NIS, 2002). The detailed structure of exports and imports, on goods according to sections of the Combined Nomenclature (CN), can be consulted in Table 1 and Table 2 at the end of this paper.

Also, in 2002, our top ten trading partners for exports (amounting to 74.5% of total exports) were, in this order: Italy (25.0% of total exports), Germany (15.6%), France (7.6%), United Kingdom (5.8%), USA (4.3%), Turkey (4.2%), Netherlands (3.1%), Hungary (3.1%), Austria (3.0%) and Greece (2.8%).

As for CIF imports, those amounted in 2002 to 18849,46 million Euro, 14.8% more than in 2001, the first ten places for imports (representing 68.1% of total imports) being occupied by: Italy (20,7% of total imports), Germany (14,8%), Russian Federation (7,2%), France (6,4%), United Kingdom (3,8%), Hungary (3,6%), Austria (3,3%), Turkey (3,1%), USA (3,0%) and Netherlands (2,2%).

The commercial deficit in 2002 accounted for 5,19 billion Euro. Needless to say, at the beginning of the first decade of the 21<sup>th</sup> century, the relatively cheap-labor existing in the Romanian economy has created a comparative advantage for exporting goods domestically manufactured, in industries as textiles, wood processing or footwear [Zaman, 2000].

##### **Trade in 2006**

In the year 2006 FOB exports amounted to € 25850,5 million, a value with 16,2% larger than that the one from 2005.

The detailed structure of exports and imports, divided on goods groups according to the CN, can be consulted in Table 3 and Table 4.

In 2006, for the first time, the exports of machinery, electric machinery, mechanical devices and equipment, together with transport means and materials (vehicles and related products) have surpassed clothing, textiles and footwear, after a decade (the '90s) when the latter occupied the top spot in Romania's exports. It can be considered an important milestone, as machines constitute the kind of products in which their manufacturing includes higher levels of added-value and know-how. Also, the value of exports to the European Union countries (UE-25) has increased by 16.3% in 2006, as compared to 2005, and, in the meantime, the weight of exports to the European Union countries in the total value of exports was of 67.7%.

The top partner countries holding the first 10 places for exports in 2006 (69.0% of total exports) are: Italy (17,9%), Germany (15,7%), Turkey (7,7%), France (7,5%), Hungary (4,9%), United Kingdom (4,7%), Bulgaria (2,8%), Austria (2,7%), USA (2,6%) and Netherlands (2,5%).

Regarding CIF imports, imports in 2006 totalized € 40745.8 million (€37609.2 million in FOB prices), and their value being 25.1% larger than the corresponding value of the year 2005. Accordingly, in 2006, the value of imports coming from the European Union countries has increased by 25.9% compared to 2005. The weight of imports from the European Union countries was 62.6% in total imports. The top ten partner countries for imports were Germany (15,2%), Italy 14,6%), Russian Federation (7,9%), France (6,5%), Turkey (5%), China (4,3%), Austria (3,8%) Hungary (3,3%), Kazakhstan (3,2%) and Poland (2,8%).

Most important, the decrease in imports of textile products for inward processing (the so-called "lohn") has resulted in Italy losing its first place as top importer in favor of Germany, after a long period of time. Thus, 2006 marks the first year that the structural transformations under way in Romanian economy started to have a sizable impact on the trade structure. Lastly, the commercial deficit also continued to show no signs

of tapering off, the maximum negative trade balance being attained in 2008 (Eurostat, 2011).

### Trade in 2009

In the year 2009, FOB exports amounted to 29036.0 million Euro and CIF imports amounted to 38774.4 million Euros, while the FOB-CIF commercial deficit had a value of 9738.4 million Euros, with 13777.3 million euro less than the previous year, 2008 (Romanian Ministry of Economy, 2010). The detailed structure of exports and imports, on goods according to the CN, can be consulted in Figure 1.

Our top ten export partners were all EU member states, totaling 2/3 of Romanian exports, divided as follows: Germany (18,77%), Italy (15,35%), France (8,19%), Turkey (4,98%), Hungary (4,34%), Bulgaria (3,76%), UK (3,34%), Netherlands (3,28%), Spain (3%) and Austria (2,36%) (Romanian Ministry of Economy, 2009).

Regarding imports, the biggest 10 import partners were (amounting to 69,9% of total imports) were: Germany (17,3%), Italy (11,8%), Hungary (8,4%); France (6,2%), China (4,9%), Austria (4,8%), Russian Federation (3,9%), Netherlands (3,9%), Turkey (3,8%) and Poland (3,6%). It's interesting to note that Germany took Italy's place as the most important trade partner for Romania.

The commercial deficit (FOB exports – CIF imports) amounted in 2009 to 9,78 billion euro, a positive evolution, with more than 13 billion euro smaller than the one of 2008 (which was 23,5 billion).

### Trade in 2014

Finally, during the last year FOB reached a total historical value of 52,5 billion euro, while the imports reached 58,5 billion euro, with 5,8% and 5,9%, respectively greater than in 2013 (Ministerul Economiei, 2015). More details about the nature of exports and imports can be found in Figure 2.

Regarding balance of trade, in the year 2014 the FOB-CIF commercial deficit was of 6046.2 million euro, proportionally reduced compared to the 2013 deficit. Also, during 2014 the Intra-EU28 community trade of goods amounted to 37305,4 million euro for dispatches and to 44103,4 million euro for arrivals, representing 71,1% of the total exports and 75,4% of the total imports (NIS, 2014).

The first 10 export countries were, in 2014: Germany (19,3% of total exports), Italy (11,9%), France (6,8%), Hungary (5,1%), Turkey (4,5%), UK (4,1%), Bulgaria (3,4%), Russian Federation (2,8%), Spain (2,7%) and Netherlands (2,6%), for a total of 63% of exports.

Regarding imports, the top 10 partners (67,5% of total imports) were: Germany (19,1%), Italy (10,8%), Hungary (7,9%), France (5,7%), Poland (4,6%), China (4,0%), Kaz

akhstan (3,9%), Russian Federation (3,9%), Austria (3,8%) and Netherlands (3,7%).

### Conclusions

Foremost, the structure of Romania's foreign trade has suffered significant and positive changes during the last decade, changes that can be satisfactorily synthesized by the statement "from textiles to vehicles", here understood as a gradual shift from labor-intensive, low in know-how and with little added value products to products that require a higher level of skill, know-how and investment (like cars and automotive components).

Secondly, the changes that occurred in the foreign trade structure can be causally linked to the structural transformations of the national economy, in its turn strongly influenced by the level of Foreign Direct Investments (FDI) from which Romania benefited mostly after 2000.

Thirdly, Romania's commercial deficit exhibits, on the long term, a significant tendency of reduction (exports – imports), which in itself it is considered a good indicator regarding the performance of a national economy on the global market, a strong negative balance of trade being interpreted as a sign of a weak, poorly balanced economy (see Figures 3 and 4).

Also, consequently, the European Union remains the main economic area of interest for Romanian foreign trade, EU countries accounting for roughly two thirds of Romania's international trade, as both exports and imports.

Lastly, as directions for further research, we should study the complex relations that can be established between the FDI levels, on one hand, and the trade performance of a country (Romania), on the other hand, investigated through means of statistical analysis and multivariate regression (like Granger causality).

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### Tables and figures

Table 1  
The structure of Romanian's exports by goods in 2002

Code of section Combined Nomenclature		mil. Euro	Structure in % as against total exports in 2002	In % as against 2001
XI	Clothing articles made of fabrics, knitted or crocheted, textile matters	3705,3	25,3%	117,8
XVI	Machinery and mechanical devices; electric machinery, appliances and equipment; sound and image records or reproduction apparatus	2292,54	15,7%	129,3
XV	Metallurgical products	1888,36	12,9%	118,0
V	Mineral products (oil products, cement, salt etc.)	1242,33	8,5%	150,0
XII	Footwear and similar	1230, 83	8,4%	118,7

Source: National Institute of Statistics, Romania's foreign trade <http://www.insse.ro/cms/en/content/romanas-foreign-trade>

Table 2  
The structure of imports by goods, 2002

Code of section Combined Nomenclature		mil. Euro	Structure in % as against total imports in 2002	In % as against 2001
XVI	Machinery and mechanical devices; electric machinery, appliances and equipment; sound and image records and reproduction apparatus	4318,97	22,9%	116,0
XI	Clothing articles made of fabrics, knitted or crocheted, textile matters	3091,73	16,4%	117,2
V	Mineral products (oil products, cement, salt etc.)	2306,48	12,8%	101,8
VI	Chemicals and similar	1520,85	8,4%	123,3
XV	Metallurgical products	1338,15	7,4%	116,1

Source: National Institute of Statistics, Romania's foreign trade <http://www.insse.ro/cms/en/content/romanas-foreign-trade>

Table 3  
Romania's structure of exports by goods, 2006

Code of section Combined Nomenclature		mil. Euro	Structure in % as against total exports	In % as against 2005
XVI	Machinery and mechanical devices; electric machinery, appliances and equipment; Sound and video recorders	5245,3	20,3%	133,1
XI	Clothing made of fabrics, knitted or crocheted, textile materials	4168,9	16,1%	98,8
XV	Metallurgical products	3877,1	15,0%	117,6
V	Mineral products (oil products, cement, salt etc)	2701,6	10,4%	109,6
XVII	Transport means and materials.	2545,1	9,8%	144,0
XII	Footwear and similar	1384,3	5,4%	107,3

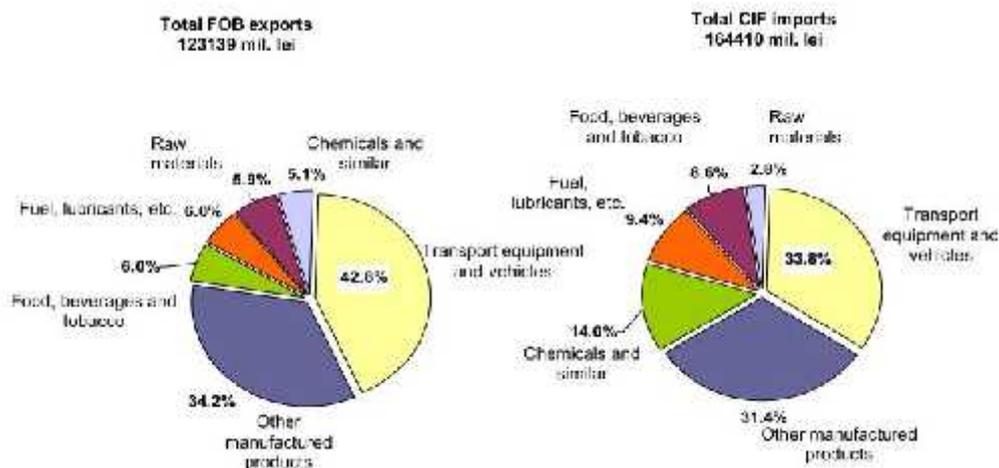
Source: National Institute of Statistics, Romania's foreign trade <http://www.insse.ro/cms/en/content/romanias-foreign-trade>

Table 4  
The structure of imports by goods, 2006

Code of section Combined Nomenclature		mil. Euro	Structure in % as against total imports in 2005	In % as against 2005
XVI	Machinery and mechanical devices; electric machinery, appliances and equipment; sound and image records and reproduction apparatus	9881,3	24,3%	129,5
V	Mineral produces (crude oil, oil products, ores, coal, cement, salt)	6032,9	14,8%	118,9
XVII	Transport means and Materials.	4710,7	11,6%	141,5
XV	Metallurgical products.	4030,4	9,9%	140,1
XI	Clothing made of fabrics, knitted or crocheted, textile materials	3385,1	8,3%	101,6
VI	Chemicals and similar.	3111,1	7,6%	127,7

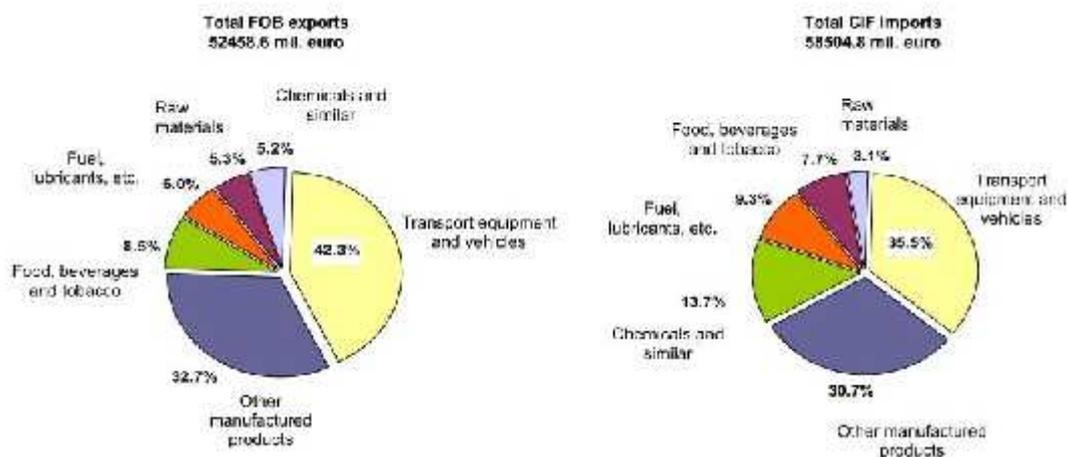
Source: National Institute of Statistics, Romania's foreign trade <http://www.insse.ro/cms/en/content/romanias-foreign-trade>

Figure 1  
 The trade structure: exports and imports by goods, 2009



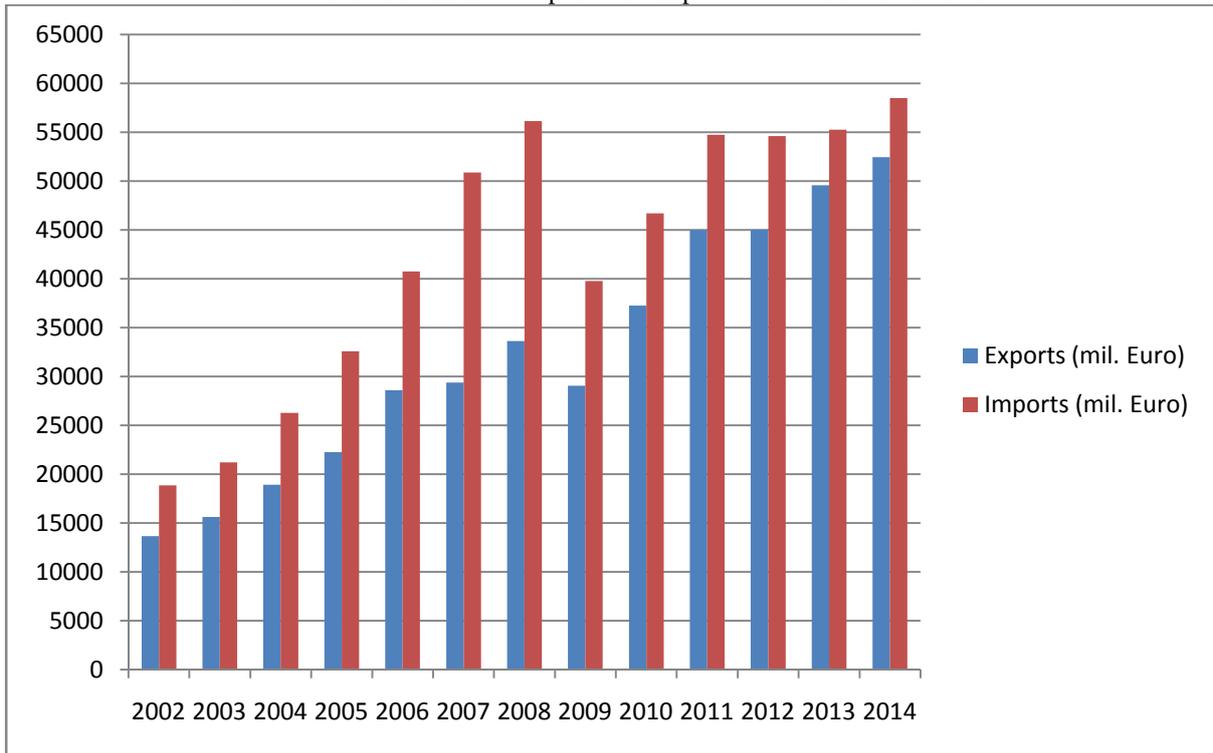
Source: National Institute of Statistics, Romania's foreign trade <http://www.insse.ro/cms/en/content/romanias-foreign-trade>

Figure 2  
 The trade structure: exports and imports by goods, 2014



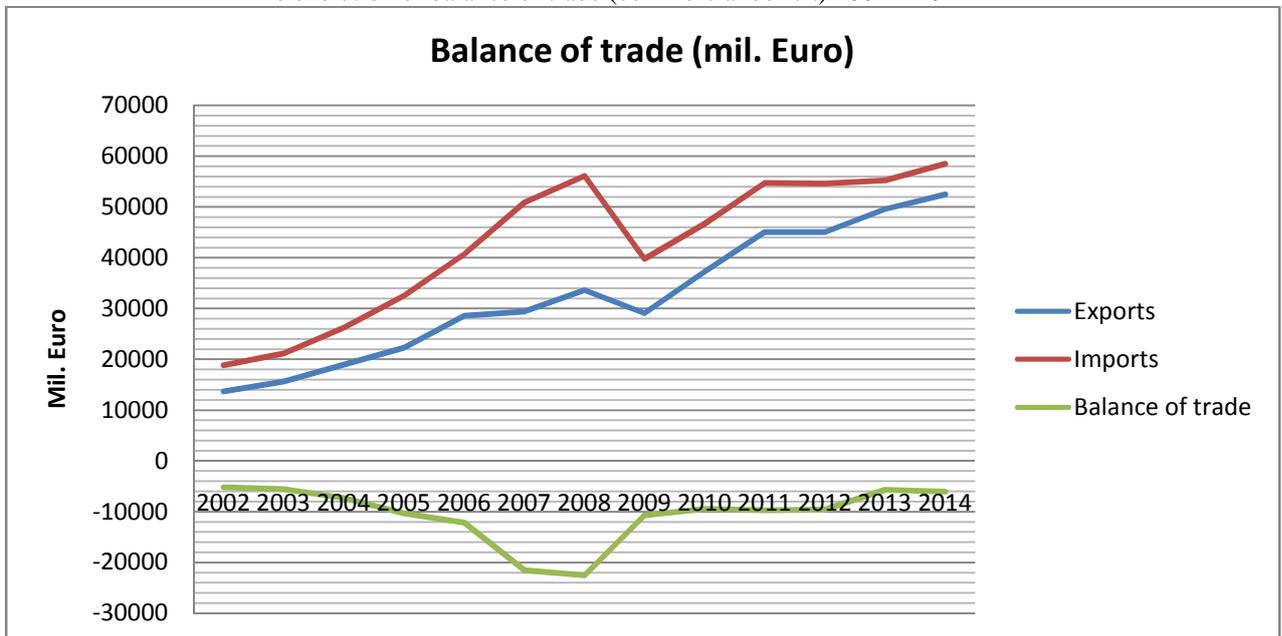
Source: National Institute of Statistics, Romania's foreign trade <http://www.insse.ro/cms/en/content/romanias-foreign-trade>

Figure 3  
The evolution of Romania's exports and imports between 2002 and 2014



Source: own calculations based on official statistical data

Figure 4  
The evolution of balance of trade (commercial deficit) 2002 – 2014



Source: own calculations based on official statistical data

