### **Do Austerity Measures Harm International Trade?**

#### **Dorin Iulian CHIRIŢOIU**

dorinchiritoiu@outlook.com

Rodica BURLACU rodica314@gmail.com

#### Abstract

This paper focuses on the trade relations between Romania and the PIIGS (Portugal, Italy, Ireland, Greece, and Spain) in order to verify whether the exports of Romania have been positively or negatively affected by the austerity measures adopted by these Eurozone periphery countries, thus diminishing Romania's export performance in such markets. Hence, our main research question is whether austerity measures harm or affect in any way the inflows and outflows of international trade in the studied countries. To assess this hypothesis, we focused on the external trade relations, and their linkages with the macroeconomic environment, rather than the competitiveness of a state explained by a detailed sectoral analysis. In this respect, we use comparative and descriptive statistics in order to observe the consequences of the internal devaluation, and implicitly austerity measures, on the PIIGS-Romanian trade relations. Our findings suggest that the effects of austerity measures are not homogenous because they depend on the scale of trade exchanges and on the way in which the austerity measures were applied.

Keywords: international trade; austerity; competitiveness; debt crisis;

JEL Classification: F10; F15; H12;

### 1. Introduction

The European Union (EU) has been affected by the financial crisis that occurred in 2007-2008 under the form of a private-banking system crisis. The financial crisis, which emerged in 2008 in the United States, has affected on the long-term the European economy by being transformed in a sovereign debt crisis. This forced the EU to give credence to other economic ideologies. Different measures erected all over the continent in order to counteract the spread of the sovereign debt crisis.

This form of economic crisis has had its own peculiarities in each affected EU member state. Whether we discuss various catalysts of sovereign debt crisis – related to housing bubble (e.g. Spain), banking system bust (e.g. Ireland), slow economic growth (e.g. Italy), negative balance of payments (e.g. Portugal), heavily indebted government (e.g. Greece) – all the EU members have rallied behind the European Central Bank's (ECB) austerity program, which has as a main goal the enhancement of competitiveness in the EU members, in order to transform them in export-oriented markets (Blyth, 2013a).

We begin our discussion with the presentation of the ideological clash between the supporters of austerity (i.e. Neoclassicals) and promoters of fiscal expansionary policies (i.e. Keynesians). Monastiriotis (2014) considers that the implementation of austerity measures is interlinked with the "quality of government and the economic base" of the respective country. On the one hand, the opponents of austerity claim the negative outcomes since tax revenues fall as the economy shrinks, even if the taxes are raised, giving birth to a downward spiral fed by a lower consumption level (Hudson, 2012). On

the other side, those that advocate for austerity measures and internal devaluation consider that firms and workers are going to bring down the real exchange rate and enhance competitiveness of a country (Bara and Piton, 2012; European Commission, 2011). While the latter approach reveals itself as the unique solution for gaining price competitiveness due to the Single Currency, the former remains questionable with respect to its long term effects for the sustainability of the economy. However, we agree that both approaches create both benefits and drawbacks, but the questions is if the benefits sought are immediate or are meant to ensure long term economic growth and prosperity. The answer will be revealed by the passing of time.

The trade-off between pay cuts, translated into a decreased demand, and layoffs, ultimately creates a negative influence on both the domestic demand and the import demand (Bara and Piton, 2012). Therefore, a fall in consumption affects the imports of the country in a positive or a negative way, depending on the competitiveness of the products.

# 2. The Issue of Austerity: Conceptual Debate

The debate over the effects of the financial crisis is way too far from reaching a consensus. The arguments, which are pro and against fiscal adjustment, can be divided according to their supporters in Keynesian Economics and Neoclassical Economics. The first argues that consumption is encouraged through fiscal expansion, which contributes to high levels of employment and higher economic growth (Monastiriotis, 2014). As long as this rate exceeds the interest rate paid for the issued bonds, the government's deficit is going to smoothly decrease in the upcoming years (Blyth, 2013b). The latter considers the fiscal expansion as nonsense due to the ability of consumers to anticipate (being perfect rational) future increases in taxes (Skidelsky, 2015). By doing that, consumers decide to save money because they know that at some point, the state has to pay for the loan, setting the consumption and investments on a downward trend (Monastiriotis, 2014). Apparently, the "triumphant" ideology was the Neoclassical one that rushed the adoption of cuts in government spending in order to offer an incentive for the financial markets to reallocate its resources (Blyth, 2013a; Skidelsky, 2015).

The austerity debate is focused on two premises. The first concentrates on the necessity of fiscal consolidation (decrease of government debts and deficits) in order to reduce debt (Monastiriotis, 2014). The role of internal devaluation is to influence the real effective exchange rate without using nominal devaluation. The direct cuts of salaries and public expenditures (to which it can be added other structural reforms) are supposed to make an economy more efficient (Aslund, 2012). The second argument argues against fiscal consolidation due to the fact that leaves the economy of a state without one of its main stimulants such as the fiscal stimulation (in the case of reductions in government spending), and with an increased pressure that is put on the private consumption through increased taxation (Schaltegger and Weder, 2014).

Some economists argue that fiscal austerity cannot be considered painless as long as they affect the long term perspective of the economy of a state even if he admits that these decisions should be taken over time and during growth periods (Rajan, 2012). Blyth (2013a) also describes the austerity solution as a "seductive" and "dangerous" ideology. It reduces the debts and deficits of a state, increases its competitiveness, and regains the

business confidence in the institutions of the state by deflating its prices and domestic wages through public spending cuts. The cut in the minimum wages that took place in Greece for example was expected to increase the competitiveness of the Greek products. However, this measure failed as an internal devaluation strategy, the exports hardly improved, and the domestic consumption went down, intensifying the recession by the reduction of purchasing power to where we cannot ignore the ever-rising taxation, high uncertainty that are poisoning even more the Greek business environment (Monastiriotis *et al.*, 2013). The same effects can be observed in the other peripheral countries of the Eurozone (Hudson, 2012). Therefore, austerity can be associated with impoverishment that offers today the promises of a better tomorrow that might never arrive (Blyth and Ban, 2015).

According to Krugman (2012), the Euro project offers to its followers absolute exchange rate stability, greater openness to financial trade, and no monetary autonomy. However, the less stable members of the union cannot use anymore the devaluation of its own currency through the exchange rate devaluation and quantitative easing procedures in case of an economic shock. This only proved to exacerbate the financial crisis, forcing the EU states to intervene in order to absorb the costs of the bust (Blyth, 2013b; Skidelsky, 2015; Zezza, 2012).

Besides excessive sovereign debt, the big discrepancies in competitiveness play an important role in the general economic performance of the countries (Anaraki, 2014; Țurlea *et al.*, 2014). But Blyth (2013a) and Honkapohja (2014) state that it is difficult to catch up from behind the competitiveness of the Northern countries which have focused on exports and healthy fiscal spending (e.g. Germany) or more thoughtful fiscal spending given past inflationary periods (e.g. Finland). Besides the economic performance, there are other factors such as the "national values, culture... and history" (Porter, 1990, p. 77) while Rajan (2012) stresses the effects of the technological developments and foreign competition.

Adding all the factors that are at the foundation of competitiveness to the context of moving the debt of the banks to the state's accounts, a drop in the purchasing power of the households will only reduce tax revenues and increase social costs (Bara and Piton, 2012). Therefore, there is a trade-off between the short run costs (unemployment, inequality, low economic growth) and long-term benefits (political stability, fiscal sustainability and high economic growth).

### 3. Methodological Approach

As competitiveness can be achieved on short term through fiscal adjustment, our paper focuses on the effects of these measures on the Romanian exports to target markets. Precisely we analyze the case of the PIIGS imports from Romania. Each country is analyzed separately in order to shortly underline the main characteristics of each national financial crisis, the austerity measures undertook, and the evolution of the total imports. Thus, our main research question is whether austerity measures harm or affect in any way the inflows and outflows of international trade, in the target countries. Our hypothesis is that the level of imports in countries affected by austerity measures should fall. Through case study analysis we see that while in some of the PIIGS countries this hypothesis holds, in others it does not. Consequently, we qualitatively explore the causal relationship

between austerity measures on one hand and the international trade levels on the other hand.

Our paper focuses on a simplified statistical analysis comprising data description and indirect consequences of the evolution of PIIGS's total imports in relation to the austerity measures undertaken, and the value of imports from Romania. Our objective focuses more on the external trade relation and the extent to which it is stimulated by a macroeconomic phenomenon, rather than on the microeconomic dimension of competitiveness. In this respect, we use descriptive and comparative statistic in order to indicate the dynamic of the trade relation between Romania and PIIGS at imports, and focus less on a sectoral analysis of the imports' structure. However, we include some brief details on different categories of products in order to explain a certain dynamic of the imports from Romania. The conclusions regarding the Romanian products' competitiveness are inferred based on a general view on the competitiveness from the export trade relation towards PIIGS and not precisely on the causes and mechanism behind the change in competitiveness (suppliers' issues, externalities, demand shifts, etc.).

We focused also on a specific timeframe that comprises three major events with impact on Romania's trade relations: in 2007, Romania entered the EU and became part of the Single Market, in 2009, the financial crisis affected the European economies, and the following years witnessed the enforcement of austerity measures. The data concerning the value of imports from Romania and from all partners was collected from trademap.org for a period between 2005 and 2014. The data was collected at a 2-digit level, without taking into account the more detailed sub-categories at 4 digits. The absolute values were collected in Euro and all the shares we refer to and percentage changes are from our own calculations.

# 4. "The Austerity's Competitiveness" in PIIGS – Romania Trade Relation

As a result of the membership to the EU, the members of the Eurozone cannot apply external devaluation, forcing them to consider other alternatives, namely internal devaluation or fiscal expansion (Aslund, 2012). However, due to the risks posed by the contagion of the sovereign debt crisis, some of the peripheral countries have been forced to opt for the first alternative, as being the only way to regain the investors' trust.

In order to improve its competitiveness, a state has two options according to the European Commission (2011). One option is to focus on the taxes on labour that are shifted towards consumption (e.g. VAT). The price of labour is going to decrease, allowing the export prices to stagnate (offsetting the increase of the taxes) as well while the imports will become more expensive. The second option is related to the decrease of the public-sector wages so that it reaches a level at which will exert downward pressure on private wages. This helps the private companies to reduce the production costs and thereby enhancing cost competitiveness. Moreover, the PIIGS members have also downsized their state apparatus via structural reforms by cutting off welfare spending (Bara and Piton, 2012). We analyze further the group of countries considered to pose the greatest problem to the Single Currency, and to the EU in general: Portugal, Ireland, Italy, Spain, and Greece.

#### 4.1. Portugal - the Vaccine against Debt

Due to the fact that the ECB changed its discourse regarding the way in which an EU member should cure its financial problems, it has become clear that Portugal had to eliminate expenditures and investments in order to get the balance of payments back on its normal track (Blyth, 2013a). Hence, Portugal needed a new approach in order to ensure the sustainability of the financial sector by counterattacking the economic and social effects of the crisis through fiscal adjustment (Pedroso, 2014).

In Portugal, the austerity measures have started to be applied after 2011 when the Memoranda of Understanding was agreed among the Government, the IMF and the EC having as result the laying off of 30,000 public sector employees, 4% increase in income tax, and cut or taxation of the unemployment and sickness benefits (Monastiriotis *et al.*, 2013). A consequence of austerity was that all domestic components of demand pushed the economy into recession. Investment and public and private consumption all decreased from the first quarter of 2011 onwards (Pedroso, 2014). Even if some of the decisions have been ruled out by the Portuguese judicial institutions in 2014, we consider that the duration of the austerity measures had lasted enough to affect the purchasing power of the Portuguese consumers (REUTERS, 2014). We can observe in Appendix 2 that the period between 2010 and 2013 was more like a stagnation and period of restructuring for the Portuguese economy.

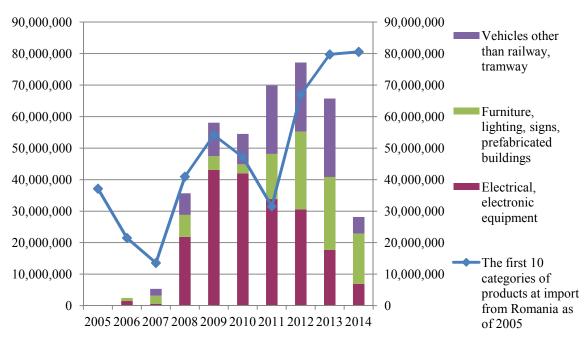


Figure 1. A comparative evolution of the top imports of Portugal from Romania (2006-2014) and the Top 10 categories imported by Portugal from Romania (as of 2005) (Euro)

In 2008, Portugal's imports were at a maximum (61.2 bn. Euro) after a period of constant growth, followed by a -18% fall in the next year, despite the stimulus package adopted in January 2009 (see Appendix 2). As we can observe in Appendix 1, the value of imports of Romanian origin were already on a steep growing path started in 2007, when the value almost quadrupled, and peaked in 2009 for a value of 141 mil. Euro being in contradiction with the evolution of the total imports, which registered the lowest value of

Source: Trademap.org and authors' calculations

the period. Although the imports from Romania increased sharply in 2007, the share of the top 10 products decreased by 30% in the same year, due to the new categories of products that entered the top, such as Furniture ('94) or Vehicles, other than railway ('87) (see Appendix 1 and Figure 1). We can assume that the soaring preference (from 0.04% in 2007 to 0.15% in 2008) for Romanian products occurred due to Romania's integration in the EU in 2007.

Before 2007, the dominant categories of products imported from Romania had a low value, despite their top ranking at import, as the bilateral relation between Romania and Portugal was still weak (see Appendix 1). After 2007, some categories of products started their positive evolution, such as agricultural products or industrial goods (see Figure 1). Other categories of products, like Wood ('44) or Organic chemicals ('29) declined severely contributing to the negative evolution of imports. After the crisis struck, the top 10 products' share declined, but the products that account for almost 50% of Romania's exports (Vehicles ('87), Machinery ('84), Electric and electronic equipment ('85)) took the lead in the top imports of Portugal (see Figure 2). After the austerity measures were imposed, the top 10 products with a higher added value. However, the top Romanian exported products remained at constant high values.

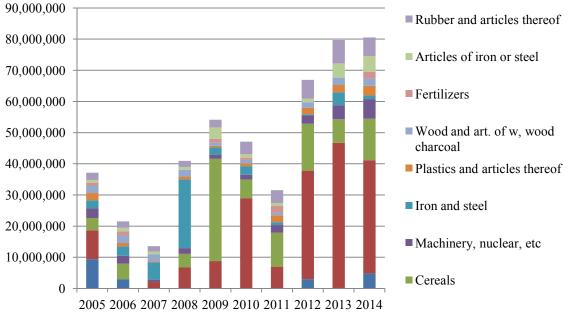


Figure 2. The evolution of the Top 10 categories (as of 2005) imported by Portugal from Romania

Source: Trademap.org

Being such small economies, in both Romania and Portugal any fluctuations in the current account are felt by the partners and in their cases, the partners are mostly Europeans. It is noteworthy that the trade relation consolidated after Romania's integration in the EU which allowed the most competitive Romania products enter the Portuguese market; albeit their small fluctuations, these products remained in the top thereafter, as it is the case of Vehicles ('87), Furniture ('94), Electrical equipment ('85) and Machinery, nuclear reactors, boilers ('84).

We may assume that the austerity measures in Portugal led to an improved competitiveness of Romania's products, but only in isolated cases, like Wood ('44), or

Iron and steel ('72). The categories of products that had higher values at import after 2011 were already growing before so we cannot infer that austerity shifted Portuguese preference towards them thereafter.

### 4.2. Ireland – a Successful Story?

The Irish economy has experienced a severe downturn since 2008. That was also noticed into a minimum value of both total imports and of those of Romanian origin by 2009 (sees Appendix 2). The drop of imports' value of around -21% in 2009 after a period of relative stability was a clear sign that the financial crisis was already causing the contraction of the Irish economy. The collapse in domestic demand caused by the popping of the asset bubble, combined with the imposition of austerity policies by the Irish authorities weakened Ireland's propensity to import, with the resultant improvement in Ireland's trade balance (Kinsella, 2014).

Nevertheless, the imports from Romania soared, exceeding the value of 100 million of Euros as a result of the high competitiveness of the Romanian products (see Appendix 1). The ranking and structure of the top 10 products at import from Romania has changed between 2005 and 2014 (see Figure 3 and Figure 4). In the pre-crisis period, the top products at import from Romania had a general negative evolution, as it is the case of lower-technological manufacturing products or with a lower added value, such as Textiles ('62), or they were at a constant low level, as it is the case for Vehicles ('87) and other high-technological goods while other products maintained their positive dynamic.

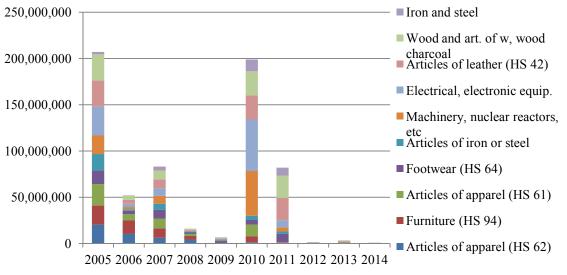


Figure 3. The evolution of the Top 10 categories (as of 2005) imported by Ireland from Romania (Euros)

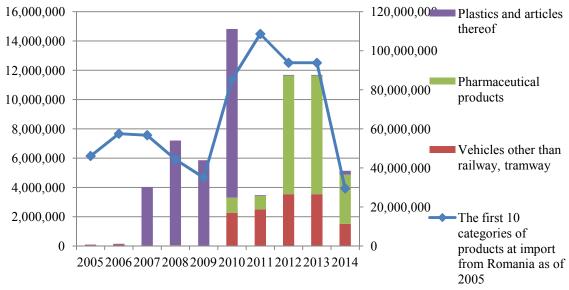
Source: Trademap.org and authors' calculations

In December 2010, the troika (EC – ECB – IMF) program was enforced under the shape of an internal devaluation with the purpose to reposition the Irish economy on a positive slope by a fostered competitiveness of its products. By lowering domestic prices through a shifted pressure between the labour and the consumption sectors, the export-led growth strategy was encouraged. The corporate tax of 12.5% remained unchanged (Monastiriotis *et al.*, 2013). Thus, exports became cheaper while imports were perceived as more unaffordable. By downsizing their state apparatus, the unemployment rate skyrocketed. Ireland implemented programs combining public spending contraction, sectoral liberalization and labour market flexibility. Public servants wages were substantially cut by 4.4% in 2010) (Bara and Piton, 2012). Presumably, the imports should have fallen sharply due to this negative income effect and to the higher relative price for imported goods, however the imports continued to increase slowly (see Appendix 2).

Between 2009 and 2011 (immediately after the austerity measures were imposed), the evolution of the top products at import from Romania changes dramatically. In broad terms, the products which had negative evolutions or were at a low level began to grow, either due to an increase in the share (higher imports from Romania and lower total imports), or due to a significant increase in the value imported from Romania (Machinery, nuclear reactors and boilers ('84))(see Figure 4). The imports from Romania, however, reached a peak in 2011 with a value of 123.8 mil. Euro and the highest share in total imports (0.257%); in the same time, the value of the top 10 categories of products from 2005 bounced back to 87.7%, thus announcing that the categories of products imported before the crisis returned to an important extent in the Irish preference.

It was in 2010 when the imports of cars from Romania entered the top 10, with a share of 0.14% of Ireland's total imports in this category, but the second most exported product type by Romania. Ireland's imports of vehicles in 2008 and 2009 follow the same evolution as the global market, severely affected by the financial crisis. Car scrappage scheme introduced at the end of 2009, the year with the lowest imports of cars in absolute value was viewed as a stimulus to increase demand during contraction periods (Central Bank of Ireland, 2010). Imports of car rebounded and began to slowly grow considering all partners, and to grow significantly in the relationship with Romania (see Figure 4).

Figure 4. A comparative evolution of the top imports of Ireland from Romania (2006-2014) and the Top 10 categories imported by Ireland from Romania (as of 2005) (Euro)



Source: Trademap.org and authors' calculations

In 2012 and 2013, the share of these products remained at a high level, albeit a small decrease down to 82%. The categories of products which had peaked previously in 2011 started to decline slightly and finally levelled off. The most dramatic decrease was seen by the Machinery, nuclear reactors and boilers category ('84), which went down by half the value in 2011, while the Electrical, electronic equipment ('85) and Vehicles, other than railway ('87) consolidated their positions with higher shares in the total imports for

these categories. At the same time, the last two categories account for about 30% in the Romanian exports, thus providing evidence that the economic situation in Ireland influenced Romanian exports for the period and helped increase their competitiveness. In 2012 the Pharmaceutical products entered the top 10, most probably in relation to the growing demand in order to sustain the pharmaceutical industry, the main category at export from Ireland. The year 2014 saw a severe decline in the share of the 10 categories of products, while the total imports of Ireland began to rebound. The value of the newly entered products has not been important even if there was a significant drop in the value of the analyzed products.

### 4.3. Italy – To Change or Not To Change

Italy is known as being one of the countries that lacked budgetary discipline, which led to one of the highest public debts in the world (Blyth, 2013a; Monastiriotis *et al.*, 2013). Given the exuberance and trust on the financial markets in 2005, the economy developed which led to higher consumption and implicitly to higher imports that were further adjusted according to the fiscal consolidation measures enforced (see Appendix 2). The global crisis that erupted in 2008 hit Italy particularly hard in 2009 but they rebounded and reached a peak in 2011 (401 bn. Euro).

However, the spread of the financial risk deteriorated the bond market for the South European countries, such as Italy, threatening their fiscal sustainability. A series of packages have been adopted in 2011 and 2012 in order to re-get the economy in shape by decreasing the total government expenditures. These were primordially focused on the restructuring and re-organization of the administration bodies in order to make them more efficient and effective (Monastiriotis *et al.*, 2013). Other measures include the alteration of the VAT (1 percentage point increase) and solidarity taxes for high earners <sup>1</sup>, and higher taxation for financial investments (new 20% tax) and energy companies (from 6.5% to 10.5%).

Nonetheless, the final result was a hybrid adjustment, between fostering efficiency of spending and an increased burden on consumers. Hence, the total value of imports to Italy was moving down, reaching the value of 355 bn. Euros (see Appendix 2). Italy ranks 3rd in Romania's partners at export and it is one of the strategic bilateral trade relations for our country, with 1.61% share of Romanian imports in the total imported value by Italy in 2014.

The basket of products from 2005 did not change significantly along the period, with only two categories of products disrupting the top after 2007: Vehicles, other than railway ('87) and Tobacco and manufactured tobacco substitutes ('24), thus replacing firstly the Mineral fuels category and later ('27), in 2009, Iron and steel ('73) (see Figure 5 and Figure 6). The share of the top 10 products basket in the total imports from Romania decreased constantly from one year to the other, from 80.6% in 2005 to 53.1% in 2014 (see Appendix 1). Although the basket preserved its structure since 2008 and the value imported fluctuated on the same trend line as did the total imports from the same category of products, there was a change of value.

 $<sup>^{1}</sup>$  5% tax for those who earn more than 90,000 Euros per year and 10% tax for those that earn more than 150,000 Euros per year

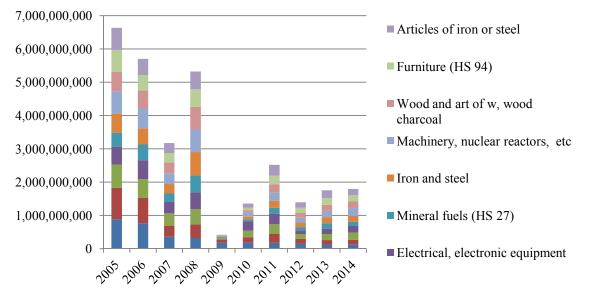
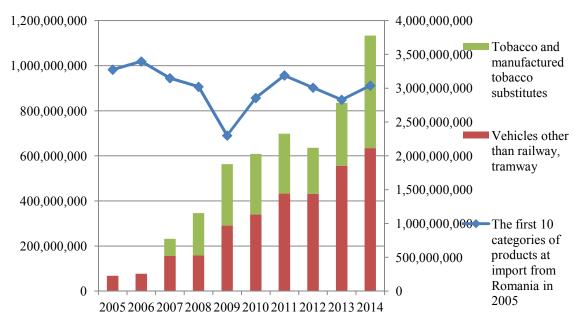


Figure 5. The evolution of the Top 10 categories (as of 2005) imported by Italy from Romania

Source: Trademap.org and authors' calculations

So why did the top 10 products have a smaller and smaller share in total imports from Romania if the top remained the same? Basically because after 2010 there were other products that were imported in a higher value from Romania and which maintained a positive evolution thereafter as it is the case of Rubber and articles thereof ('40), Aluminium and articles thereof ('76), or Plastics ('39) (see Figure 6).

Figure 6. A comparative evolution of the top imports of Italy from Romania (2006-2014) and the Top 10 categories imported by Italy from Romania (as of 2005) (Euro)



Source: Trademap.org and authors' calculations

It is noteworthy to mention that immediately after the crisis' effects became pungent in the economy, we can observe an increase of the share of Romanian imports in the total value imported by Italy, with respect to the total value of Italy's imports started to decrease (see Appendix 2). Hence, we can assume that Romanian products became more competitive on the Italian market, and all the notable sectors of Romania's exports were present in high share in the relation with Italy. Since the Italian-Romanian trading relation is strong in terms of value traded and due to the significance of Italian imports in Romania's exports, the shifts in imports' dynamic is closely related to the general tendency of the Italian economy. Romania is therefore following the general dynamic imposed by the overall economic environment resulted from the internal measures in place.

#### 4.4. Greece – the Trojan horse of Austerity

Greece was seen as one of the most successful countries in the beginning of 2000s, period that culminated with the organization of the Olympic Games. The good fortune of the Greek society could have been observed only by looking at the total quantity of imported goods which was depicting a positive evolution that was ranging between 15% (in 2006) and around 9% in 2008 (see Appendix 2).

Once the financial market went into stress, the heavily reliance of the Greek economy on debt issuance has been observed through the substantial divergences that were existing between the budget deficit and the country's target. The bad performance of the Greek economy made the financial institutions to get worried about its performance, transforming the idea of default into a plausible one, especially when the EU member countries decided not to offer low-cost loans to Greece (Zezza, 2012).

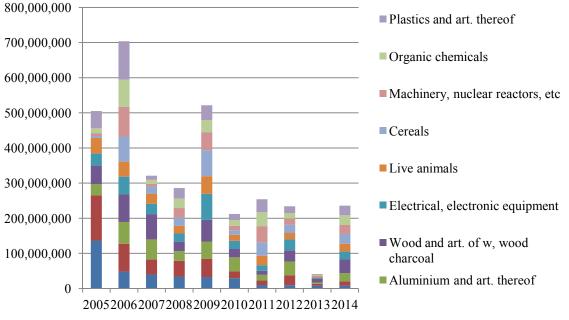
The accentuated decrease from 2011 was due to the first austerity measures that were adopted by the Greek Government in 2011, that moved the burden on the consumption sector in an attempt of an internal devaluation. Such measures included increased VAT (from 19% to 23%), 3% cut for the public utilities employees, the elimination of the so called  $13^{th}$  and  $14^{th}$  salaries (in the case of high public earners) or their replacement with 500 euro bonuses for public workers and 400 euro for retirees, and tax hikes on luxury goods, on property and on inelastic goods (alcohol, cigarettes and fuel) (Monastiriotis *et al.*, 2013; REUTERS, 2010).

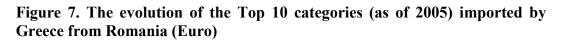
After a minimum total value in 2011, of 43.6 bn. Euro, the imports increased by almost 11% in 2012. However, the Government from Athens needed to adopt a new series of austerity measures that were coming together with the "Midterm Package" (Monastiriotis *et al.*, 2013). These new measures enhanced the bad economic condition of the Greek economy by reducing the minimum wage by 22%, by laying off 150.000 public sector workers will have the most important influence on long-term on the Greek society, plus other taxes on property and a number of reduced benefits such as health and social securities. Apparently, the internal devaluation meant to increase the cost competitiveness of Greek products. This has resulted into more expensive imports caused the value of imports to decrease by more than 2 bn. Euro in 2013 (see Appendix 2).

The trade relations with Romania had been characterized as possessing a general tendency of flattening, an overall high level and no major fluctuations. The peak was attained in 2007, after a period of bounded growth. In 2009 they dropped until about the same level of 2005 once with the emergence of the financial crisis in Europe (see Appendix 1).

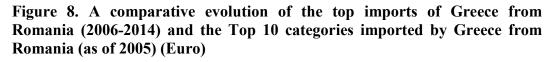
During 2011, when the first wave of austerity measures was imposed, Greece's total imports decreased by 5 bn. Euro, while total imports from Romania continued on their growing dynamic. Until 2011, the top 10 remained relatively unchanged in terms of the

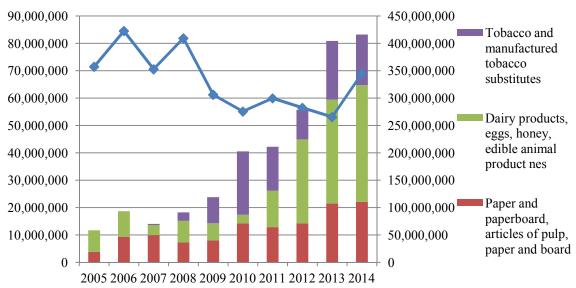
products imported. However, starting with 2011 new categories of products emerged (Tobacco ('24), Soaps ('34), or Dairy products ('04)) (see Figure 7 and Figure 8).





Source: Trademap.org and authors' calculations





Source: Trademap.org and authors' calculations

The Greek started to import more from Romania when the economy entered a hardship phase, thus enhancing the Romanian products' competitiveness. The share in the total value imported by Greece has reached as near as 1.29% in 2014, after two years of growth (see Appendix 2). Being highly dependent on imports in order to sustain its

industrial production, Greece's imports were affected by the slowing down of the domestic consumption. The cut in the minimum wages that took place in Greece was expected to increase the competitiveness of the Greek products. However, the measure failed as an internal devaluation strategy. Consequently, exports hardly improved and domestic consumption went down, intensifying the recession by the reduction of consumption power. The ever-rising taxation, high uncertainty, and illiquidity poisoned even more the Greek business environment (Monastiriotis *et al.*, 2013).

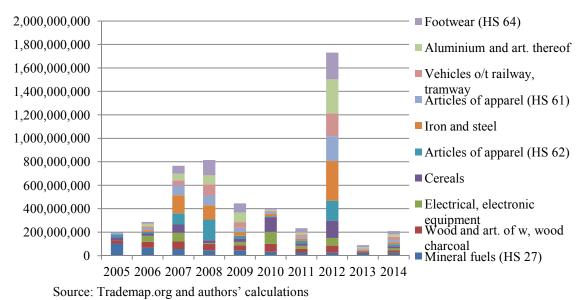
#### 4.5. Spain – the House Bubble, a Soap Bubble?

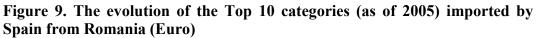
In the case of the Spain's sovereign debt crisis, an important role is played by the house bubble. The slump from 2009 in the value of total imports is related to the construction materials - such as Wood ('44) and Iron ('72) (Figure 9) – that experienced a downward trend in demand since the house demand decreased. Moreover, the young adults, who had been hired in the building sector via temporary contracts, did not receive any contract renewal due to the latent state in which the Spanish house market was found in (Feigl, 2012).

These forced the Government from Madrid to take action by creating a fund of 99 billion Euro in order to re-establish the real estate sector (Monastiriotis *et al.*, 2013). This led to the recovery of the Spain's total imports between 2009 and 2011 (see Appendix 2). However, it was becoming harder to finance through bond issuance to support the malinvestments from the real estate, leading to the decision of adopting austerity measures in order to restructure the state and regions' economic balances at the recommendations of the ECB (REUTERS, 2011).

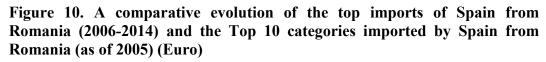
The first intake of austerity measures took place in 2010, when Spain (Monastiriotis *et al.*, 2013): increased the VAT from 16% to 21%, cut corporate taxes deductions, reduced with 5% the public sector wages, froze the pension increases, cut some welfare benefits such as the baby born 2500 Euros cheque. After 2011, the measures have been expanded by increasing the taxation of the rich people, by reducing regional spending and by cutting public spending with 7,9% (REUTERS, 2011). As a result, after 2011, the total value of imports has suffered a slight decrease for two years, but at a steady rate.

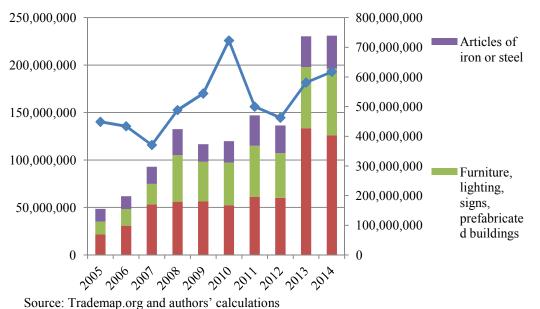
Romania's integration in the EU has intensified the trade relations between Romania and Spain, with the total value of imports from Romania increasing up to 1 bn. Euro. In the same period, Spain's total imports experienced a negative evolution (see Appendix 1). 2010 was also the year when two of the most prominent categories of products that Romania is exporting – Vehicles, other than railway ('87) and Electrical, electronic equipment (153 mil. Euros) ('85), reached a peak on the Spanish market (see Figure 9). Indeed, Romanian products became more competitive on the European market after its integration in the EU, notably for categories of products with a higher added value as those above mentioned.





The basket of products that contributed to the top 10 in 2005 has changed over the period, with new products entering the top 10 and others leaving it but mostly after Romania's entering the Single Market rather than being more correlated to the shifts in the Spanish demand (see Figure 9 and Figure 10). Two important categories of products for the Romanian exports, Machinery, nuclear reactors, boilers etc. ('84) and Furniture ('94) ranked high in Spanish preferences in 2007 and maintained this position during the whole period. Other categories products saw massive decreases, mainly due to their destination of use on the market. This is especially the case of Iron and steel ('73), as materials used in the construction sector that was flourishing in the Spanish economy before the crisis. After the sharp fall from 2009, the imports had an attempt of bouncing back, but the demand was still low.





In the case of Spain, we must question the presence of two significant categories of products from the Romanian exports, Vehicles, other than railway ('87), and Electrical, electronic equipment ('85) still occupying the first two positions in the top products in 2010, 2011 and 2012, while the absolute value decreased significantly after 2010. Therefore, we can infer that such an occurrence indicates a loss of competitiveness with respect to the most important products that are exported by Romania.

## 5. Conclusions and Recommendations

The model we suggested leaves apart other macroeconomic factors (e.g. the overall slowing down of the world economy, or the post crisis measures taken elsewhere in the world), leading to the conclusion that other trade partners of PIIGS may have also been affected at sectoral levels. Since we did not focused on offering an insight on the internal production dynamics, the data used at 2-digit level provided more a clue on the type of industry, rather than on the specialization degree. By ignoring the microeconomic part of measuring competitiveness and by relying on recent post-phenomenon data, our research evolves towards further studies on the trade dynamics in the following years.

This article has developed a framework for a better understanding of the effect of national austerity measures on the international trade flows in targeted countries. Our paper applies this approach, by showing how heterogeneous the effects of austerity measures can be on the different PIIGS countries we have covered empirically. We took the Romanian case study as an in-depth analysis of how national traits of the exporter can lead to variations in the international trade flows between countries. By testing the dynamics of trade relations in the context of austerity, we sought the appliance of specific patterns with respect to each analyzed country. The main finding is that no data can provide enough evidence that all countries with similar traits during a crisis act congruently with respect to imports from a third party (in our case, Romania).

In this sense we see parallel dynamics at work. On one hand the economies affected by austerity measures might go through a decrease of imported goods, due to their decrease in purchasing power. On the other hand, as in the case of Ireland, this decrease, from a specific partner country (i.e. Romania) might be caused by national considerations. As such, we feel that our paper raises and partially illustrates the question of how to account for both internal and external factors that affect international trade flows in times of austerity.

We believe that further attention should be paid to the evolution of the main categories of products that rank first in Romania's exports, such as Vehicles ('87), Electrical ('85), electronic equipment, Furniture ('94), Machinery, nuclear reactors, boilers, etc. ('84), or Apparel ('62). These categories of products are also included in the top most competitive products for the future.

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Appendix 1. Top 10 categories of products (imported from Romania) and the total
imports (from Romania) (in Euro)

Portugal				Ireland			
Year	Value of the top 10 products (from 2005)	Total imports from Romania	Share	Year	Value of the top 10 products (from 2005)	Total imports from Romania	Share
2005	37,122,000	42,213,000	87.90%	2005	46,105,000	47,086,000	97.90%
2006	21,517,000	27,289,000	78.80%	2006	57,523,000	59,925,000	96.00%
2007	13,575,000	24,533,000	55.30%	2007	56,753,000	64,165,000	88.40%
2008	40,949,000	90,161,000	45.40%	2008	44,332,000	56,623,000	78.30%
2009	54,160,000	141,367,000	38.30%	2009	35,042,000	44,665,000	78.50%
2010	47,124,000	120,043,000	39.30%	2010	85,307,000	106,417,000	80.20%
2011	31,514,000	118,767,000	26.50%	2011	108,597,000	123,842,000	87.70%
2012	66,949,000	171,332,000	39.10%	2012	93,819,000	113,346,000	82.80%
2013	79,719,000	173,557,000	45.90%	2013	93,835,000	113,366,000	82.80%
2014	80,555,000	125,634,000	64.10%	2014	29,526,000	51,886,000	56.90%

Italy					Gre	eece	
Year	Value of the top 10 products (from 2005)	Total imports from Romania	Share	Year	Value of the top 10 products (from 2005)	Total imports from Romania	Share
2005	3,274,984,000	4,062,007,000	80.60%	2005	357,337,000	434,194,000	82.30%
2006	3,396,527,000	4,303,817,000	78.90%	2006	422,423,000	505,311,000	83.60%
2007	3,149,082,000	4,415,997,000	71.30%	2007	352,700,000	535,917,000	65.81%
2008	3,021,920,000	4,368,121,000	69.20%	2008	409,129,000	525,384,000	77.87%
2009	2,300,789,000	3,738,677,000	61.50%	2009	306,136,000	446,119,000	68.62%
2010	2,856,352,000	4,657,889,000	61.30%	2010	275,520,000	457,386,000	60.24%
2011	3,189,434,000	5,291,899,000	60.30%	2011	299,559,000	474,168,000	63.18%
2012	3,008,189,000	5,025,410,000	59.90%	2012	282,305,000	477,168,000	59.16%
2013	2,828,778,000	5,065,181,000	55.80%	2013	265,353,000	515,589,000	51.47%
2014	3,039,055,000	5,727,524,000	53.10%	2014	344,951,000	602,030,000	57.30%

Spain							
Year	Value of the top 10 products (from 2005)	Total imports from Romania	Share				
2005	448,877,000	587,921,000	76.35%				
2006	433,912,000	630,078,000	68.87%				
2007	370,766,000	585,357,000	63.34%				
2008	488,354,000	756,495,000	64.55%				
2009	544,415,000	807,139,000	67.45%				
2010	722,966,000	1,040,515,000	69.48%				
2011	499,972,000	868,014,000	57.60%				
2012	462,674,000	872,279,000	53.04%				
2013	581,207,000	1,085,508,000	53.54%				
2014	617,537,000	1,169,773,000	52.79%				

Source: Trademap.org and authors' calculations

Portugal					]	Ireland	
Year	Imports from Romania	Total imports	Share	Year	Imports from Romania	Total imports	Share
2005	42,213,000	49,114,831,000	0.09%	2005	47,086,000	56,435,094,000	0.08%
2006	27,289,000	53,090,718,000	0.05%	2006	59,925,000	60,992,927,000	0.10%
2007	24,533,000	57,140,936,000	0.04%	2007	64,165,000	63,502,270,000	0.10%
2008	90,161,000	61,240,657,000	0.15%	2008	56,623,000	57,738,969,000	0.10%
2009	141,367,000	50,181,790,000	0.28%	2009	44,665,000	44,862,380,000	0.10%
2010	120,043,000	56,911,807,000	0.21%	2010	106,417,000	45,598,443,000	0.23%
2011	118,767,000	57,669,750,000	0.21%	2011	123,842,000	48,226,233,000	0.26%
2012	171,332,000	56,211,379,000	0.30%	2012	113,346,000	49,643,452,000	0.23%
2013	173,557,000	56,895,755,000	0.31%	2013	113,366,000	49,652,088,000	0.23%
2014	125,634,000	58,671,724,000	0.21%	2014	51,886,000	53,263,269,000	0.10%

Appendix 2.	Evolution	of PIIGS	countries'	imports
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Italy						Greece	
Year	Imports from Romania	Total imports	Share	Year	Imports from Romania	Total imports	Share
2005	4,062,007,000	309,008,332,000	1.31%	2005	434,194,000	44,077,713,000	0.99%
2006	4,303,817,000	352,298,197,000	1.22%	2006	505,311,000	50,738,574,000	1.00%
2007	4,415,997,000	373,390,390,000	1.18%	2007	535,917,000	55,516,759,000	0.97%
2008	4,368,121,000	381,258,960,000	1.15%	2008	525,384,000	60,694,213,000	0.87%
2009	3,738,677,000	297,414,801,000	1.26%	2009	446,119,000	48,179,057,000	0.93%
2010	4,657,889,000	366,736,243,000	1.27%	2010	457,386,000	48,153,271,000	0.95%
2011	5,291,899,000	401,219,010,000	1.32%	2011	474,168,000	43,675,053,000	1.09%
2012	5,025,410,000	380,304,862,000	1.32%	2012	477,168,000	48,473,688,000	0.98%
2013	5,065,181,000	358,676,717,000	1.41%	2013	515,589,000	46,038,675,000	1.12%
2014	5,727,524,000	355,179,268,000	1.61%	2014	602,030,000	46,660,065,000	1.29%

Spain							
Year	Imports from Romania	Total imports	Share				
2005	587,921,000	232,546,463,000	0.25%				
2006	630,078,000	262,672,967,000	0.24%				
2007	585,357,000	285,419,482,000	0.21%				
2008	756,495,000	284,590,364,000	0.27%				
2009	807,139,000	206,149,023,000	0.39%				
2010	1,040,515,000	237,631,022,000	0.44%				
2011	868,014,000	260,500,671,000	0.33%				
2012	872,279,000	253,354,444,000	0.34%				
2013	1,085,508,000	250,152,744,000	0.43%				
2014	1,169,773,000	264,042,684,000	0.44%				

Source: Trademap.org and authors' calculations