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MNCs agglomeration and its effects on Regional Competitiveness

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A theoretical assessment over the Eurozone crisis

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Acronyms:

MU: Monetary Union

EMU: European Monetary Union

GIIPS: Greece, Ireland, Italy, Portugal and Spain

CA: Currency Area

GDP: Gross Domestic Product

OCA: Optimum Currency Area

MNC: Multinational Corporation

R&D: Research and Development

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Abstract

The liberalization of markets in the last decades has brought the growth and spread of multinational corporations (MNCs). However, there is considerable evidence that MNCs do not regard all locations as being equivalent. The activities of these companies broadly differ from peripheral to core regions. This project intends to evaluate the impact of that dynamics into both states and local firms and how it might be in the origin of a divergent economic performance. Furthermore, it will demonstrate how this phenomenon is directly related to the present crisis in the European Monetary Union (EMU) ultimately originating a conflict between national and supranational interest. That fact will cause friction and dissatisfaction among members and will represent a future challenge for the area. The key message of this project is that, in a monetary union characterized by heterogeneous corporate realities, macro prudential tools are necessary to address imbalances at the regional level.

Keywords: MNCs, Host Country, Home Country, Currency Area, Monetary Union, Peripheral countries, GIIPS, Heterogeneity, Profit Repatriation, Technological Innovation, Geographical determinants, National Interests, Supranational Interests.

1. Introduction

1.1 The MNC effect

The globalization of the last decades was in the origin of the growth and spread of MNCs. Their relevance to national economies increased over time, both in developed and underdeveloped nations. Multinational Corporations have that name due to the ability to spread their activities globally in order to take advantage in market opportunities and exploit country specific resources and capabilities (Caves, 1996). Although multinationals have their country of origin (home Country), where their headquarters are located and where the majority of their taxes are paid, it is often argued that MNCs are "footloose" (Caves, 1996; Görg and Strobl, 2002). "Footloose" in the sense that MNCs operate over a range of different markets and can reallocate their factors of production across these markets (host countries) to minimize total costs of production. With that strategy, MNCs can respond to changing local economic conditions without having to incur major set up costs. All in all, MNCs organize their international value chain to achieve greater efficiency in the activities performed, optimizing their productivity and profits. However, there is empirical evidence that not all locations are considered as being equivalent, and not all their different activities bring the same benefits to countries. Economies in peripheral regions are not as attractive for investment due to their restricted market access and underdeveloped infrastructures. Therefore, the nature of MNCs activities greatly differs depending on the area, the ones located in peripheral countries having a less relevant role.

The fact of being a "Host" or a "Home" country deeply impacts on countries' economies. One of the main problems is profit repatriation; companies exploit market opportunities and competitive advantages in the host country and then repatriate profits to their home countries, avoiding taxes and spillovers, and negatively affecting host countries' economies. That is not the only way MNCs sustain their competitive advantage, as it will be demonstrated further in this project (Chapter 5.8). There is evidence that their branch

colonization activities stifle countries growth by displacing local firms and obstructing their technological progress. In conclusion, countries that are home to a considerable amount of MNCs will have an advantage and a certain degree of control over countries that host these corporations. This hypothesis will be explored further in this project.

1.2 Peripheral countries

The concept of peripheral country directly implies the existence of a 'core'. The fact of belonging to the core or the periphery has proven to be a detrimental factor regarding nation's performance; its impacts go from technological improvements and communication technologies to transportation costs (Krugman, 1991; Venables, 1996). Various authors demonstrate that it also has a direct relation with agglomeration of economic activity, since firms will concentrate production where demand is greater and where economies of scale can be achieved.

Defining peripheral countries is complex task, since membership of the core (and of the periphery) changes over time. In this project, a peripheral economy will be considered as a country that incorporates all (or several) of the following characteristics: it plays an insignificant role as homing Multinational Enterprises (MNCs); engages in relatively low trade in manufactured goods; contributes relatively little to innovation and scientific progress; is weakly linked or physically accessible to the core and does not play a significant role in decision making within supranational organizations (Benito and Narula 2008).

Within this project the countries considered to fit this definition the best are Greece, Spain, Portugal, Ireland, and "Italy". While the first three fill all the criteria, Ireland and Italy are very special cases. Ireland is geographically distinct from the others due to its close connection with the UK and US economies, further, it has a comparatively stronger industry and the foreign investment is higher due to its "tax heaven" advantages. Southern Italy would perfectly qualify as a peripheral country but since statistics are only available as an average of the whole nation, it will not be treated as a completely peripheral country. As such, the focus of this project will be Greece, Portugal and Spain,

and then consider information regarding Ireland and Italy, if appropriate and available. These countries will be referred as "GIIPS"; acronyms introduced in the 90s' and broadly used by the majority of analysts.

The distinction between a core and periphery has brought new questions into the area; what will be the consequences of integration for the spatial organization of economic activity? Will it promote convergence or cause an even stronger concentration in the core countries? These questions will be addressed further in this paper.

1.3 Monetary Union

Oxford Dictionary defines a monetary union as being the adoption of a single currency between several nations. A monetary union is very similar to a fixed-exchange-rate regime, where countries sacrifice their control over monetary policies to eliminate transactions costs when carrying out transactions between members, improve financial stability and making unexpected economic variations less likely to happen (Levin, 2000).

Overall, the creation of Monetary Unions (MU) is expected to be a catalyst in Economic growth and help member states to converge. However, as some empirical evidence reveals, MU might instead be a factor of divergence and reinforce the gap between the "virtuous core" and the "sinful periphery" (Estrada, 2012).

The creation of the European Monetary Union (EMU) posed a profound economic challenge for the different regions that integrate it. Suddenly, countries were openly competing with neighbors that have very different economic conditions. There is a strong evidence of the convergence of countries before the formation of the EMU. However, that process was largely reversed and differences between countries are growing deeper over time. The situation in peripheral countries started to degrade and that fact worked as a catalyst for the financial crisis of 2007.

Hancké (2013) demonstrated that the convergence that marked the years previous to the formation of the EMU was abruptly reversed in the years 2000-2001 with core countries

current account surplus rising fast, opposing to the accumulating deficit of peripheral countries. Countless researches arrive to the same conclusion, such as Eckhard and Achim (2002) that demonstrated that Real GDP growth among EMU member states differed widely without a tendency towards convergence.

1.5 Monetary Policy

When countries cede control over the supply of money to a common authority, they lose control over an important stabilization tool. In the presence of a shock, the country has less flexibility to cushion it without sacrificing its economic performance. That fact frequently causes major changes in the trade balance and compromises countries long-term prosperity (Durand and Giorno, 1987).

The typical policy rule in the EMU considers exclusively union-wide variables. Yet, the states have very different characteristics, from corporate landscape to trade balances. As such, the present stabilization mechanisms of the EMU do not efficiently correct region specific shocks, leaving these countries without an important tool to control them. In some cases, the monetary policy is not only ineffective but also works as a catalyst, worsening the situation for these countries.

Even if countries face identical shocks, they might still need different monetary policy responses, due to different initial economic positions and country-specific transmission mechanisms. Therefore, if the monetary policy in the area is unified, it might not be the ideal one (Mélitz, 1991). Duran and Giorno (1987) further emphasize that this asymmetry has refocused attention on the question of how competitiveness should be measured, as well on the relationship between money supply and economic performance.

1.6 Competitiveness

The liberalization of the markets and economic policies increased both the amount of firms, volume traded and the competitiveness between companies/countries. In this regard, the concept of competitiveness has gained and has been gaining an unprecedented

importance when measuring countries prosperity and economic performance. Competitiveness is rooted in the economies and is extremely importantly in a nation's microeconomic environment, it is contained in the sophistication of company operations, the quality of the microeconomic business environment, and the strength of clusters (Porter, 1990). Various levels of competitiveness have been studied, respectively: country level, firm level and regional level (Fetscherin and Johnson, 2008).

In a monetary perspective, the euro area functions as any other individual country, with a central bank that provides liquidity to the bank system and centralized monetary policies. In these terms, the euro area is more like a "country" instead of its constituent member states. With this in view, this project will approach competitiveness mainly in a regional perspective, forming groups of countries with similar characteristics in order to make better comparisons and draw conclusions.

In this project, competitiveness is defined as: being able to control the growth of unit labor costs – the costs, expressed in wages, of producing a single good or service – faster than the trading partners, causing a decrease of the relative salary costs and consequently increasing productivity (Hancké, 2013, Setterfield, 1997). A highly competitive firm or country will presence an increased ability to adapt to changes in the global market and develop a prosperous economic environment. The reason for this choice is the fact that this definition of competitiveness not only fits the data collected, but also matches all the empirical evidence presented. Chapter 3.2 will give a better insight over these reasons.

1.7 Relevant Assumptions

The recent literature has a high focus on the effects of the monetary union in the policy design of different countries. However, with a few exceptions, the connection between the presence of MNCs and regional performance was largely neglected. This paper intends to measure the relationship between the two variables and demonstrate that the presence of certain MNCs activities has a big influence in the competitiveness of different regions and is directly connected to the present EMU crisis. In other words, this paper will test the hypothesis that the presence of a considerable number of home MNCs

is crucial for a good economic performance, and regions that lack on them will have a competitive disadvantage.

This project will further defend that in order to promote convergence. A monetary union should not rely exclusively on union-wide variables, but also include regions specific characteristics. Therefore, a mechanism to correct the divergences among nations should be built, and countries that suffer a competitive disadvantage originated from the integration compensated in detriment of the countries that benefit from it.

1.8 Paper Structure

After the above paragraphs, many pertinent questions arise: What is the role of MNCs on regional performance? Can corporate imbalances together with union-wide objectives be the reason of why countries in the EMU are diverging? How could a viable solution be created? Could the problems be corrected by reacting to regional variables rather than to union-wide variables?

In order to address these questions, this paper will be based in the following outline: **Chapter 2** will consist of a methodology part that will explain how the data was collected, the perspective taken to evaluate knowledge and the assumptions behind this project. **Chapter 3** provides a comprehensive review of the literature surrounding MNCs, competitiveness and some specific situations within a Monetary Union; including the absence of control over monetary policies and the consequences of having a misalign exchange rate. These concepts are explored and summarized in order to use them further in the analysis. **Chapter 4** presents the main frameworks that will be used in this project, with the purpose of constructing a base from which the analysis and the empirical work can be undertaken. This includes Murdells Optimum Currency Area (OCA) framework, which describes necessary conditions for a MU to be successful, Hanckés competitiveness framework, which presents relevant guidelines regarding the concept of competitiveness, and the Kaldorian framework of cumulative regional competitiveness, which has a very peculiar perspective for explaining divergences within a MU and serves as base for the development of the project framework. **Chapter 5** will consist of an

analysis and discussion of the variables and frameworks presented previously. Secondary data analysis will be used in order to empirically evaluate the validity of the arguments and build an explanatory framework to help to understand the problem statement and draw relevant conclusions. At last, **Chapter 6** will consist in a concluding chapter that provides a summary with main findings and suggestion for future research.

2. Methodology

This chapter will present the paradigmatic framework, research design, data collection and methods utilized to build this project. It will explain the pre-made theoretical assumptions and how the knowledge from the research should be interpreted.

2.1 Paradigmatic Framework

The situationist view defines that various paradigms make complementary contributions to the understanding of any phenomenon under investigation (Rossman and Wilson, 1985). In other words, by making use of the situationist view, researcher can use various paradigms and mix methods. This view perfectly adapts to this project, since it needs to take both an objective approach when evaluating the present reality and a subjective approach in order to identify influential variables and draw the necessary conclusions. Independently, each one of them would be very limited and would not be enough considering the complexity of the phenomena.

Ontologically, the system view by Arbnor & Bjerke (2009) has been seen as the most appropriate to research and understand the mechanics of the corporate landscape on regional competitiveness. The approach of this view assumes that a social entity, being a group, organization or a community, is conceived as a system with belonging subsystems. The aim of it is to understand the interconnection between and within the subsystems and systems, in order to understand the real world. Furthermore, it suggests that the subsystem together can create synergy effects, meaning that they can be more valuable together, compared to the value that they would have individually.

This view is especially relevant in this project since the different entities have a whole set of different degrees. It goes from the EMU, a system at the supranational level, regional level systems, national level systems and corporate level systems. Therefore, the complexity that results from their interaction calls for an accurate evaluation of all the variables and for a special attention to correlation between variables. It is assumed that the phenomenon evaluated exists due to the interaction between the actors within it.

Considering this interaction, epistemologically, this project will take the holism confirmation, which means that everything has a connection, and each part must be analyzed, in order to understand a given research object. As mentioned before, the phenomenon cannot be understood by itself, and neither can each of the subsystem. It is therefore important to understand the system as a whole, in order to achieve sufficient knowledge (Arbnor & Bjerke, 2009).

2.2 Research process

This study has both academic and business purposes. The main objective of this paper is to come with a new perspective over the mechanics of the European integration and bring some recommendations and awareness for both national and supranational decision makers. This thesis can provide suggestions to improve the situation within the EMU, presenting a new perspective that is lacking in the present available literature and that many actors are not fully aware. The research was conducted considering a single case design, which is often used to provide a deep understanding over the phenomena (Yin, 2009). The single case design is suitable for a research focusing on deep understanding of the phenomena.

Regarding the research approach, this project will take an inductive approach. Inductive approach is characterized by data collection and theory development as a result of the data analysis (Kuada, 2009). It will investigate specific observations and analyze data in order to build a theoretical framework, which can be used to further understand the phenomenon.

2.3 Data Collection and Reliability

The data collection in this project exclusively consists on secondary data. The reason for using secondary data is that, due to the nature of the variables, they can only be collected at a national or supranational level and there is limited access to them. Furthermore, due to the lack of literature in the area, this project makes a systematic review in order to

understand the phenomena from a purely theoretical standpoint and provide tools for future empirical research and data collection. As a consequence, the data used by this project originated from supranational entities such as The World Bank and the European Union.

A few limitations come from using secondary data. According to Bryman & Bell (2011) the lack of familiarity with data is one of the main limitations of the use of secondary analysis, because it is unknown how the data was organized. The complexity of the data is another limitation that is characterized with very large data in the sense of having numbers of both respondents and variables. No control over the data quality; means that the data that has been collected may not necessarily meet the needs of the secondary analyst, since the data may not have been collected on an aspect of a topic that would have been of considerable interest. In order to reduce the bias, this project strictly collected data from reliable sources.

Regarding the method used to collect the data; this project has been conducted through a query method in a list of different databases. This method allows the researcher to use different words to find information, while simultaneously gives the researcher the possibility to combine those words by writing "and" between the search words making the retrieved information more precise. Furthermore it have been possible to use * behind a word, in order to search for similar words with different endings, giving a broader range of results, within the relevant area.

The resource used were mainly based on official databases such as ProQuest, Research Gate, Scopus, due to the fact that they feature various highly-respected and diversified journals, trade publications, e-books, news content, reports, working papers and so on. Furthermore, these databases have an in-depth cover of subjects related to business. Apart from these databases, general search engines were also utilized. However, those articles need to receive special attention in the screening process, to assure credibility.

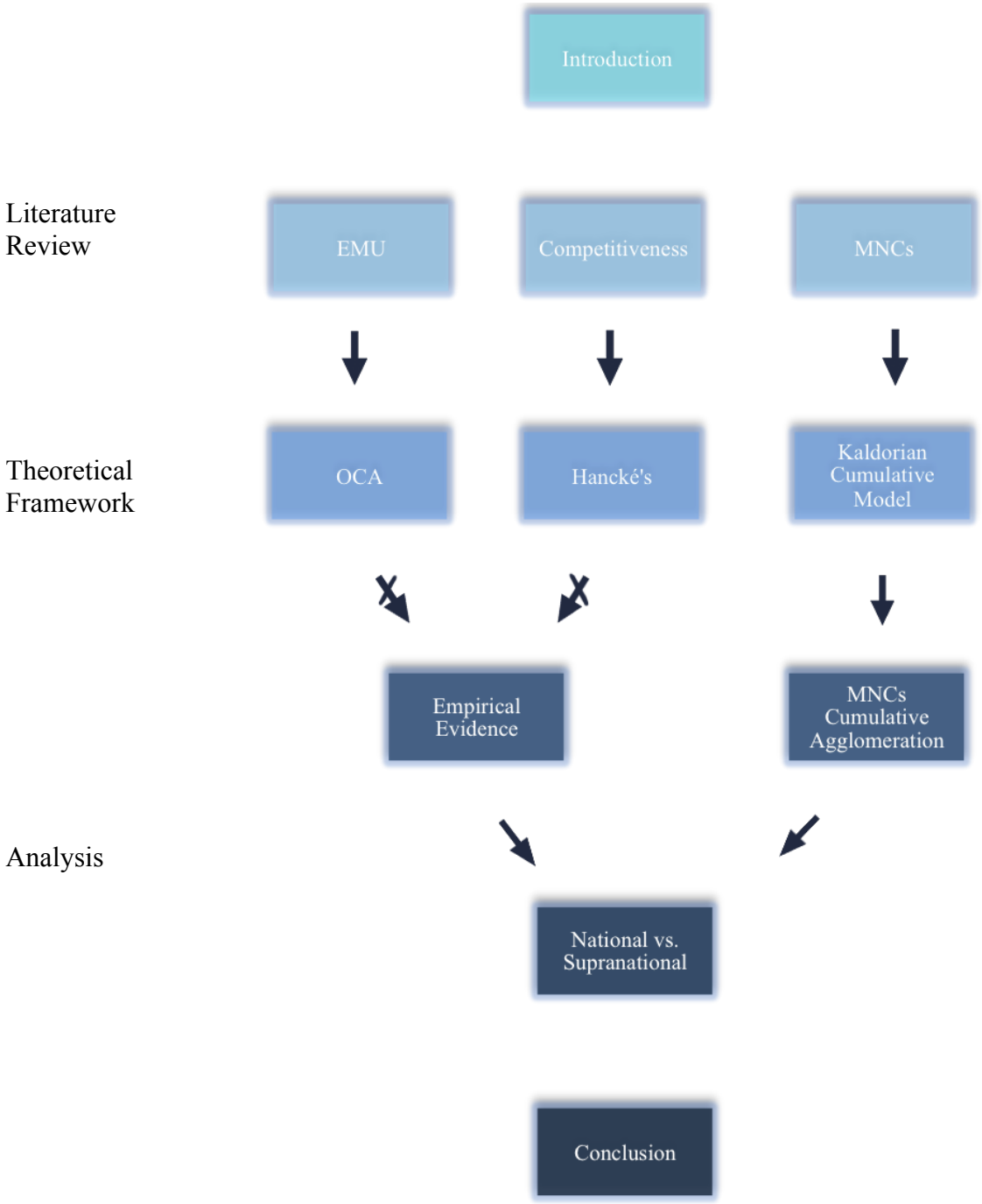
Moreover, databases such as the European Union and the World Bank were used in order to obtain relevant data for empirical analysis. Scholars broadly use these databases and they have a high degree of reliability due to the nature of those institutions. By gathering data and developing knowledge based on all of these sources, it was possible to ensure a credible and broad range of articles and information amongst the existent literature on the topic. At last, when searching the definitions of some of the keywords, another sources such websites were used. Nonetheless, only sources such as government websites, worldwide known foundations or institutions websites, etc. have been taken into account, thus assuring the use of reliable information.

2.4 Research Design

Research design can be described as the action plan of the research (Kuada 2010). It represents the framework for the collection and analysis of data and reflects the decisions about the priority given to a range of dimensions of the research process (Bryman & Bell, 2011).

A research design that uses a cross-sectional design entails the collection of data on more than one case at a single point of time (Bryman & Bell, 2011). In other words a cross-sectional design can be described as a "snap-shot" of the collected data. This design focuses on the quantifiable data by the connection of two or more variables, where the goal is to detect patterns of association and relationship between variables (Bryman & Bell, 2011). A whole set of different variables will be evaluated in this paper, and the connections between them analyzed in order to obtain common ground and find correlation between them. Considering this, cross sectional data perfectly adapts to it, and will be used as the main research design in this project.

2.5 Project Design



3. Literature Review

3.1 Relevance of MNCs

MNCs and its surrounding environment are an extensively researched topic in the literature. Some authors believe these organizations complement domestic savings, promote technological development and management skills, increase competition and stimulate entrepreneurship (Caves, 1974; Lowe & Kenney, 1999; Teece, 1977; Rugman, 1981). However, a different group of authors presents a different perspective, suggesting that MNCs are more likely to strangulate local firms, use inappropriate technology regarding the circumstances, avoid potential technology spillovers, and reduce the domestic capital stock and tax revenue due to transfer price manipulation and profit repatriation (De Backer & Sleuwagen, 2003; Gorg & Greenaway, 2002; Haddad & Harrison, 1993).

Many papers research the negative effects of MNCs activity on social welfare (Baran, 1957) and in the competitive environment (Clapp & Dauvergne, 2005; Daly, 1993). Authors defend that MNCs operating in host countries might have benefits over local companies due to their high negotiation power, creating competitive disadvantages. The outcome of the negotiation is determined by the Bargaining power of both sides (MNCs and Governments): being companies with a higher negotiating power more able to extract favorable outcome from negotiations. Host governments usually try to maintain a certain level of control and minimize incentives provided to MNCs. However, host governments have to induce "rather than command" because MNCs have options elsewhere and they can go to another country in case they are not satisfied. Different countries are competing for the MNC investment. Some researchers argue that MNCs take advantage on vulnerable countries in order to reduce operating costs and maximize output (Daly, 1993; Porter, 1999; Wheeler, 2001). With the illusion of the employment and capital benefits, countries wishing to attract MNCs are forced to participate in a global "race to the bottom", where countries that give more benefits to the MNC will receive a greater proportion of the investment. Other scholars criticized the 'race to the bottom'

perspective suggesting that MNCs may actually increase competitiveness and technological innovation levels (Christmann & Taylor, 2001; Dowell, Hart, & Yeung, 2000; Wheeler, 2001).

An important term referred in the field is "spillovers", which are considered the residual benefits that MNCs leave to the local economy (Aitken & Harrison, 1999; Blomstrom & Persson, 1983; Globerman, 1979; Kosova, 2004; Mansfied & Romeo, 1980; Teece, 1977). Researchers state that MNCs spillovers will bring advanced technologies, knowledge and skills that will be transferred to local firms and will enhance their productivity (Caves, 1974; Lowe & Kenney, 1999; Teece, 1977). In fact, spillovers are used as a tool by MNCs to influence host country governments, being their main factor of bargain power (Fagre & Wells, 1982; Kindleberger, 1969).

In the spillovers perspective, it is assumed that when MNCs conduct their normal business, local firms will naturally absorb the spillovers. Therefore, these corporations do not need to contribute directly to the development of the host country in which they operating, since the economic progress will derive from its normal activities. However, some researchers argue that in order for those spillovers to be transferred, some conditions must be met. High levels of institutional development, advanced skills base, and absorbing capacity in the industry are the main conditions referred in the literature. The literature in the area has shown limited support for positive spillover effects but there is evidence of the negative consequences in the economic, social and environmental areas (Aitken & Harrison, 1999; Görg & Greenaway, 2002; Gunther, 2002; Haddad & Harrison, 1993). Some authors have found that MNCs tend to strangulate local firms and that technology and skills transfers do not occur in the long term (Aitken & Harrison, 1999; Chang & Xu, 2006; De Backer & Sleuwagen, 2003). In sum, these authors defend that MNCs will absorb the overall of the benefits, leaving only the residual benefits to host countries, benefits that according to some authors do not even exist.

Another key debate in the area is the interaction between MNCs and the national business systems. These corporations operate and bring different benefits weather they are the

parent or the host country they are embedded (Kuemmerle, 1999). MNCs invest abroad either because they possess technological advantages over other competitors or for country specific advantages of that location (Rugman, 1981). As a consequence, subsidiaries have a mere "supportive" role, adapting the technologies created at home to the host market. The author demonstrates that R&D expenditures by subsidiaries do not result in genuine innovation but only on techniques adaptation. Their role is mainly supportive to the parent firm innovation and only a small fraction of R&D is done in the subsidiaries. They represent an extension of the parent firm and their main objective is to safeguard the market in the host nation (Rugman, 1981). In the same line, Hennart (1996) considers that subsidiaries exist to extend abroad firm specific advantages, and are arranged accordingly to the R&D done by the parent firm. In a different perspective, Dunning (1996) demonstrated that MNCs would invest in R&D abroad not only to exploit their existing competitive advantages, but also to gain new country specific advantages to help to sustain their global competitiveness.

MNCs are also known for using intra-firm creative pricing and accounting mechanisms to invisibly repatriate profits from their overseas enterprises (Lall, 1973). They repatriate their profits from subsidiaries to their parent companies in the form of dividends or royalties transferred to shareholders as well as the simple transfer of accrued profits. This fact helps them to avoid taxes in the host countries and causes huge capital outflows from the host to the home country, having significant effects on the balance of payment of the former (Billet, 1991). Furthermore, due to their global value chain, MNCs subsidiaries spend a big share of their money to import components from abroad, which causes capital outflows, reduces tax revenue, and is referred by some authors as a factor that decreases economic dynamism in the host country. In a different view, Lall (1998) demonstrated that the export of manufactured goods remain highly concentrated in countries that are home to a big amount of multinationals. The author demonstrated that these countries have scale economies and increasing returns, as well as agglomeration as determinant of competitive advantages.

3.2 Defining Competitiveness

Although competitiveness was extensively researched in the last decades, there is still no consensus about its definition. Mainly due to its broad concept, economists came with many perspectives, and there is a big disagreement over which variables to use when measuring it. For the purpose of this paper, the framework made by Hanckés (2013) was selected. Therefore, the competitiveness of an entity will be measured by "Being able to control the growth of unit labor costs – the costs, expressed in wages, of producing a single good or service – faster than its trading partners, implying an improvement in competitiveness". In this definition, the higher the flexibility of labor costs, the more competitive the entity is.

The word competitiveness, originated from the Latin word, competer, which means involvement in a business rivalry for markets. It is common to use this word to describe economic strength of an entity with respect to its competitors (Murths, 1998). The variable has been studied at various levels: country level (OECD, 1992; Hickman, 1992), industry level (Feurer and Chaharbaghi, 1994; Buckley et al, 1988; Roth & Morrison, 1992) and regional level (Sixth Periodic Report on the Regions, 1999; The European Commission, 2004).

Country-Level

Primarily focusing on the determinants of productivity and growth, Bert G. Hickman (1992) defines competitiveness as "the ability to sustain, in a global economy, an acceptable growth in the real standard of living of the population with an acceptably fair distribution, while efficiently providing employment and without reducing the growth potential in the standards of living of future generations". This definition has a clear reference to sustainability, defending that competitiveness is not only about the short term, but also takes into account the future generations. With a similar perspective, Scott and Lodge (1985) proposed that competitiveness is a "country's ability to create, produce, distribute and/or service products in international trade while earning rising returns on its resources." This author diverges from others, including the variable "returns" as a condition for competitiveness, defending that they need to have an ascendant trend for an

entity to be competitive. In the same line but with a higher focus on the economic structure, OECD (1992) defines competitiveness as “the degree to which a nation can, under free trade and fair market conditions, produce goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real income of its people over the long-term."

Many other authors focus in the welfare creation; such as IMD World competitiveness Center, 2014; Global Competitiveness Report WEF, 2014 and The US competitiveness Policy Council, 1992. All these definitions state that competitiveness entails the living standard of the population that needs to be both rising and sustainable over the long run. In short, they highlight prosperity as the fundamental measure of competitiveness in a national scale.

Firm-Level

The Report of the Select Committee of the House of Lords on Overseas Trade (Low, 1985) move the focus of competitiveness to the firm level; "competitiveness is synonymous with a firm's long-run profit performance and its ability to compensate its employees and provide superior returns to its owners." This definition resembles the welfare creation frameworks presented above but with a microeconomic perspective. The research from Feurer and Chaharbaghi (1994) puts more emphasis in the firms’ strategy and affirm that firm competitiveness "depends on shareholder and customer values, financial strength which determines the ability to act and react within the competitive environment, and the potential of people and technology in implementing the necessary strategic changes." Feurer and Chaharbaghi go further and defend that "competitiveness can only be sustained if an appropriate balance is maintained between these factors which can be of conflicting nature." A different definition is given by Porter (1990), which emphasizes the productive use of resources as a good measure for competitiveness. According to this scholar, the main determinants of competitiveness of enterprises are: their strategy, structure and rivalry, the demand conditions they face, the factor supply conditions they encounter, and the conditions of related industries. These facets can be

viewed as dimensions that can measure competitiveness. Porter's concept is one of the most relevant frameworks in the field, due to its simplicity and effectiveness.

In a more general view, Buckley et al (1988) defends that competitiveness is directly connected to effectiveness (having the right goals) and efficiency (reaching the goals with the least resources possible). These two variables are the crucial points in order to be competitive. Competitiveness can be defined as "The balance between efficiency and effectiveness in the economic realm". Roth and Morrison (1992) look at different variables when measuring competitiveness. For the authors, marketing differentiation and innovation are the key factors, and in order to be competitive, a company must have market differentiation relatively to other suppliers. Firms would also need to consider brand identification, advertising, promotion and distribution in international markets.

Regional-Level

The term Regional Competitiveness has been used more rarely and there are a few definitions for it. However, many similarities can be found regarding the other levels of competitiveness.

According to the Sixth Periodic Report on the Regions (1999), competitiveness at a regional level is defined as "the ability to produce goods and services which meet the test of international markets, while at the same time maintaining high and sustainable levels of income or, more generally, the ability of (regions) to generate, while being exposed to external competition, relatively high income and employment levels'." In other words, similar to the welfare creation views, for a region to be competitive, it is important to ensure both quality and quantity of jobs. However, The European Commission defends that, although every region has competitive and uncompetitive firms, there are characteristics within a region that affect the competitiveness of the firms located there. Therefore, the entity presents an alternative definition that reflects this fact, "A regional economy's ability to optimize its indigenous assets in order to compete and prosper in national and global markets and to adapt to change in these markets". Furthermore, the report adds that unlike nations, in the regional level, exchange rate movements and price-

wage flexibility do not work properly or do not exist. On the other hand, interregional migration of factors, capital and labor, can be a real threat to regions. The report concludes, "In the absence of such macro economical adjustments mechanisms, the concept of macro-economic competitiveness cannot be fully applied to the regional level either."

3.3 Other factors influencing competitiveness

In the past, economists have tended to pay little if any attention to the role of geography on competitiveness of regions. However, a growing amount of economists are starting to use these variables (Krugman and Venables, 1990; Knox, 1994; Ohlin, 1933; Predöhl, 1950; Balassa, 1967) in explaining economic scenarios, especially after the Nobel Prize winner Paul Krugman presented his work on geographical economics in 1991. Only in recent years, elements such as economic integration and international trade were connected with location issues. These authors establish a direct connection between geographic positioning and uneven regional development. They defend that with an isolated position and no direct access to the main market routes, these countries they will have increased costs, less access to specialized labor and a more difficult access to capital. As a consequence, firms decide whether it is more convenient to concentrate in just a single location (centralized position) and serve other regions by exports or alternatively incur in additional fixed costs to open up a second plant in a different location. Therefore, this factor constitutes a major force in firms' agglomeration.

Another group of authors identifies the innovative process as being an important factor in explaining the difference in competitiveness (Storey, 1998; Hashi and Stojcicc, 2013; Kafouros, 2015). They identify Research and Development as the main variable for technological and economic progress. Therefore, policy makers should focus on supporting innovative firms, and create an environment that promotes their creation and development. Moreover, Autio and Parhankangas (1998) found that innovative firms increase their employment and sales during economic recessions, which is a major factor of stabilization. A positive relation with exports was also found by (Bleany, 2012) defending that firms wishing to export should first reach a base level of R&D. There is a

consensus on the contribution of R&D in development. Empirical evidence was found that most countries in the periphery of Europe lack in this variable. For many authors, such as Makris (2005), that factor is a big variable in explaining the differences.

3.4 Defining a Successful Monetary Union

A considerable amount of literature proposes frameworks to define whether or not a MU has potential to be successful. Mundell's optimum currency area (OCA) largely dominates the discussion in the field. This framework establishes a number of criteria, which are necessary for the success of a MU. The criteria define stabilization mechanisms to promote convergence and distribute shocks. Mudell's OCA will be further presented in chapter 4.1 and each one of its criterions defined.

Other authors have less demanding criteria in order to determine whether a MU can have a positive or negative effect in different countries. McKinnon (1963) suggested the degree of openness as the way to measure an OCA. The more integrated the nations are, the more chances of success the MU will have. The author further defends that exchange rates adjustments are unnecessary when there is a high integration in goods transaction. Kenen (1969) presented product diversification as an important element of a MU, emphasizing that highly diversified regions are more prepared for a currency union than regions with low diversification, since they are less likely to suffer asymmetric shocks. The author states that Risk sharing is a necessary condition to cushion these shocks.

Some researchers incorporate new dimensions in the OCA approach. Beetsma and Bovenberg (1999), highly focus on the benefits of monetary unification in terms of credibility and a better insulation from inflationary pressures. Ingram (1962) defends financial integration as the more important variable in a MU, defending that it facilitates adjustments in the case of inter-regional payment imbalances, avoiding the use of monetary policies in the short run.

A number of studies suggest that countries do not need to fit the OCA criteria before integration but it is instead a gradual process, only with time the criteria can be fulfilled.

Frankel and Rose (1997) state, that business cycles depend on trade integration and correlate the degree of integration and income. Mongelli (2002) presents a different approach, defending that the success of a CA, exclusively depends on the pre-existing degree of convergence.

The authors have different perspectives over the variables that promote a successful CA. However, there is a consensus that conditions need to be met to promote convergence. It is then important to analyze the present situation of the EMU through these variables perspective. The framework selected for this project is Mundell's OCA, since it is the most complete, detailed and the one that allows a better comparison in this specific case. The framework will be analyzed further in chapter 4.1.

3.5 Relevance of Monetary and Fiscal Policies

A general definition for monetary policy is: the central bank actions to influence and/or target short-term interest rates or nominal exchange rates (The Federal Reserve, 2000). These actions are taken in order to promote maximum employment, stable prices and moderate long-term interest rates (The Federal Reserve, 2000). However, there is still no agreement among scholars of which instruments to use to achieve these objectives or whether these goals are compatible with each other or not (Rasche & Williams, 2007).

Although price stability can help to achieve growth and employment over the longer run, in the short run, some tension can exist between the two goals. Besides the stability of prices and the level of output, monetary policies can also contribute to stabilize the markets. If there is a shock in the market, the entity can decrease the impact in the financial markets by providing liquidity through open market operations and discount lending (The Federal Reserve, 2000). As such, monetary policy can be an important tool in order to absorb and disperse the shock.

After the Great Depression in the United States, other industrialized economies monetary policy were generally considered "ineffective." This perspective was supported by the famous work from Keynes's (The General Theory) and his followers, the "Keynesian

economists" from 1940s to 1960s. Keynes (1936) offered an explanation for the presumed impotence of monetary policy when facing a depression, a nonmonetary interpretation of it, and an alternative to monetary policy.

However, in the last decades, the position over monetary policy has changed, and is now considered together with fiscal policies an important tool to control inflation and economic fluctuations (Friedman and Schwartz, 1963; Friedman and Meiselman, 1963; and Andersen and Jordan, 1968). Other authors, such as Anderson and Jordan (1968) and Anderson and Carlson (1970) showed that monetary policy is necessary to overcome short-run fluctuations in economic activity. That conclusion is in line with the Kennedy's Council of Economic Advisers that goes further and states that policies must be in line with the potential growth of the economy, providing base for expanding liquidity. Monetary policy and debt management policy must be coordinated with fiscal policy to achieve high employment and growth without inflation (Council of Economic Advisers, 1962).

Together with monetary policy, fiscal policy is considered a primary stabilization tool. It is defined as the use of government spending and taxation to influence the economy. Governments typically use fiscal policy to promote strong and sustainable growth and reduce poverty. Government expenditures, taxation and debt have a big effect on the national economy, therefore are a big generator of controversy. Authors are in constant disagreement on which one of them to use in specific situations.

Governments provide a big share of essential services. To do that, they require the collection of taxes and fees. With everything else being constant, lower taxes will increase households' disposable income and consequently increasing consumer spending heating the economy. However, over time, an increase in the budget deficit resulting from a tax cut will be reflected in the public debt (increasing it). That increase has important consequences on interest rates, capital investment and future economic welfare. Fiscal policies that increase the deficit will result in future taxes being higher than it would be without them. Depending on the incentives for human or physical capital, they might

raise the standard of living in the future. Fiscal incentives are also proven to be one of the key determinants of innovation, in particular R&D spending having a major role in the firms' innovation activities

Several authors believe that fiscal policies are a main factor in firms' development and can influence firms' competitiveness. Fiscal policies affect investment decisions that are related to tax burden, infrastructures and commercial policies. When a policy promotes macroeconomical stability, it stimulates competitiveness, private sector development and private investment (Demekas, Horváth, Ribacova & Wu, 2007).

4. Theoretical Framework

4.1 Mundell's Optimum Currency Area

In 1960, the Canadian Nobel Prize-winner Robert Mundell, created the pioneer theory of optimal currency areas (OCA). In his work, "A Theory of Optimum Currency Areas" he stated that there are conditions required for a region to benefit from a common currency, based on the costs and benefits obtained from that union. There is a constant trade-off between the reduction of transaction costs and the increase in adjustment costs. The costs can have an impact in terms of employment and inflation that are associated with the loss of control over money supply in the case of asymmetric shocks. Furthermore, the author proposes a high degree of integration as the only way to absorb asymmetrical shocks.

The first criterion identified by Mundell's is (1) Price and Wage flexibility; when prices and wages are flexible within currency area nations, the unemployment and inflation in the area tend to converge and are less likely to have sustained unemployment or inflation in one isolated country. Friedman, (1952) states that if prices and wages are completely flexible, the need for nominal exchange rates adjustments is critically decreased. However, Kawai (1987) defends that in the presence of some rigidity in these two variables will represent a cost in the absence of independent monetary policies.

(2) Mobility of factors (including labor) is another criterion of the OCA. According to Mundell (1961), high factor integration within a currency union can reduce the need to alter real factor prices and nominal exchange rate when handling a shock. It enhances both efficiency and welfare that is only limited by the capacity of countries to generate and absorb investment.

The third characteristic of an OCA is an (3) integrated financial market. This factor is important to reduce the need for exchange rates adjustment and cushion external shocks through capital inflows. Capital movements will equilibrate a small change in interest

rates across partner countries and interests rates between countries will tend to converge.

An efficient OCA also asks for (4) economic openness; the higher it is, the less need for exchange rate adjustments the country will have, since changes in international prices will be quickly transmitted to the domestic price of tradable goods and cost of living.

A high (5) diversification in production and consumption is a necessary characteristic, reducing the impact of shocks in a specific sector. Kenen (1969) affirms that diversification reduces the need for changes in the nominal exchange rate and provides a protection against different shocks. This criterion will be reviewed further in chapter 5.4.

The (6) convergence of inflation rates is another important factor, in the absence of it, in the long term it will cause divergence in structural developments, labor markets and economic variables. This factor will stabilize trade and cause more equilibrated trading accounts, reducing the need for exchange rate adjustments.

Many authors point out (7) Similar Business Cycles as being very important to the success of a currency area. In this criterion, the author states that all members of the MU must have similar business cycles so that economic booms are shared, and the central bank can overcome recessions by promoting growth and inflation.

With (8) fiscal integration, countries would sharing a fiscal transfer system to redistribute funds to a member country affected by an adverse asymmetric and would decrease risk and require less nominal exchange rate adjustments (Kenen (1969).

The last criterion, (9) Political integration is regarded as the most important by many researchers. It will foster joint commitments, increase cooperation on economic policies, encourage more institutional linkages and increase political convergence.

The author further emphasizes, that for the success of a currency union, countries in surplus must mitigate market shocks by revenue sharing. Thus, a floating exchange rate

that concentrates an economic shock in a country and/or group of countries does not fit the concept of an OCA. In contrast, the author states that "…because the currency is shared and all countries would benefit from absorbing economic shock as a whole, placing the burden of recession and devaluation in one country or region alone is unsustainable."

Table 1: Mundell's OCA criteria

1	Price and wage flexibility
2	Mobility of factors
3	Financial market integration
4	Degree of economic openness
5	Diversification
6	Similar inflation rates
7	Similar Business Cycles
8	Fiscal Integration
9	Political Integration

4.2 Hancké's Competitiveness Framework

Many researchers point competitiveness as the main factor in the euro crisis of 2008. Hancké (2013) uses a long-term framework in order to explain the various steps that connect the creation of the MU and the loss of competitiveness of periphery countries, such as the GIIPS. In his research, he uses a wage bargain perspective and the relative cost structures in order to explain the divergences between countries within the EMU. The author affirms that countries with a more structured wage bargain systems will have a competitive advantage towards the ones with more fragmented wage bargain structures.

Before the formation of the MU, the presence of a national central bank could keep wage negotiators under control, by the treat of interest rates raises, and national politicians used

their macroeconomic policies in order to converge with the EMU norms for inflation and deficit. However, after the formation, national governments lost control over their monetary policies, lost bargain power to wage negotiators and had a relaxation in the demands for the politicians, which after joining the union did not face the threat of exclusion anymore. Under the common currency, wage negotiators face a completely different set of incentives and constraints. While in many of these countries such as Germany, tight macroeconomical policies decreased the power of wage bargain agents in less structured countries, and increased their influence over wage negotiations. As a consequence, the inflation in the more structured countries remained low, while the ones with less coordination faced inflationary pressure (Hancké, 2013). Through time, these inflationary divergences started to hurt the periphery countries competitiveness and consequently their exports and account balances. Lastly, the different wage bargain power influenced countries public and private debt causing the Eurozone crisis.

Hanckés framework is characterized by five main elements: First, the author presents the definition of competitiveness: "Everything else equal, being able to control the growth of unit labor costs – the costs, expressed in wages, of producing a single good or service – faster than your trading partners in EMU implies an improvement an improvement in competitiveness" (Hancké 2013, 4). In other words, the author states that if the growth in labor costs is lower in one country than in other, the first will gain competitiveness vis-à-vis the second one.

Second, Hancké does a division between the sectors affected by price competition and those that are not. Among the sensitive industries are manufacturing for exports, while the non-affected ones are non-traded services and public sector. According to the author, in the short term after joining the currency area, the competition sensitive sectors will not have a direct increase in labor costs. It still faces the constraint in the shape of external competitiveness and has an incentive to keep its wages under control. However, over time, the raise in wages in the "sheltered" sector will push up the wages in the exposed sector. The relatively higher wages in the public sector will force the exporting industries to raise their wages.

The third element of the framework is the "productivity whip". Countries with a higher control over wage bargaining will have tighter wage dispersion, or while real wage growth is low, relative real wages are high. As a consequence, there is a high productivity growth that allows companies to invest more, in order to raise their productivity and profit. Therefore, it will cause a raise in competitiveness and lowers labor costs. The author further states that since competitiveness is a relative concept, when one country gains, others necessary lose. (Hancké 2013)

The forth element is the impact of competitiveness in the export sector. The author states that if, adjusted to the labor productivity, the costs of labor in the export industry in country A increase faster than in country B (major trading partner), country A will suffer a loss in competitiveness and lead to a fall in employment and/or lower wages. In the limit, firms that operate in a country that suffers from a loss of competitiveness will face the prospect of exports collapse as a result of rising relative prices in those products.

Finally, the fifth element is the impact on current account balances. There will be a contrasting position on current account balances between countries that have a coordinated wages bargaining institutions and those that have not. Countries that have not, will face competitiveness problems that ultimately cause current account imbalances and excessive debt.

In the author's perspective, the profits made in competitive countries will find its way to the less competitive ones through the banking system in the form of private and public debt, and will then be used to purchase more goods to them, which starts everything again, creating an endless unsustainable circuit (Hancké 2013).

Table 2: Hancké's elements of Competitiveness

1st	Control over Labor Costs
2nd	Relative Decrease in Labor Costs
3rd	Increase in Productivity
4th	Increasing Exports Competitiveness
5th	Positive Current Accounts

Not all of these elements must be present for Hancké's argument to succeed. However, there should be sufficient correspondence with the data for the mechanism to operate for individual countries and the two groups (core and periphery).

4.3 The Cumulative Growth Model

The Regional export-led growth model is selected by this project as the base for framework created in this project. It gives a simple and clear demonstration of why divergences in regional competitiveness are increasing between member states (Kaldor, 1966). Regarding the regional competitiveness subject, the last years saw the revival of Kaldorian models of cumulative competitiveness (Setterfield, 1997; Krugman, 1993).

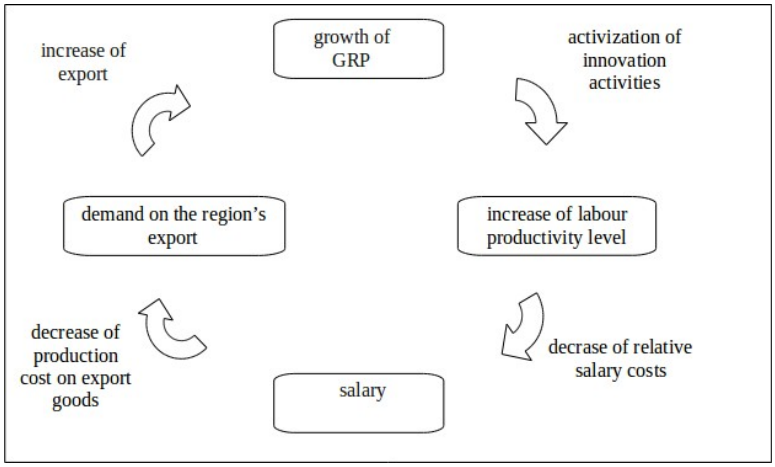


Figure 1: Kaldorian Regional Cumulative Growth Model

Figure 1, represents the simplified version of the model, which builds a cumulative regional competitiveness (Thirlwall 1975; McCombie and Thirlwall, 1994; Setterfield, 1997).

This simplified model is especially useful to show the correlation between variables. It assumes that the region's output growth is positively related to the demand for its exports. When an increase in the demand for the region's exports takes place, there will be a growth in the Gross Regions Product (GRP). That growth is a consequence of the value created by the increase of exports or the profit that resulted from it. As the GRP grows, the money available for the economical actors increases and will therefore increase task specialization and fixed capital acquisition, that productivity will be higher the faster the growth of regional output. As a consequence, an increase in labor productivity level will take place, originated from the efficiency gains. That fact will then decrease the production costs of exported goods and enhance the export competitiveness of the region in those specific products. Finally, due to the gains in competitiveness, there will be an increase in the demand for the regions exports in the international market.

This model is a closed circuit. The variables will keep influencing each other until an external shock in one of the variables happens. It shows that the degree of demand for exports (its competitiveness) is directly related to world demand and the proportional change of the region prices comparing to world prices. If the region's prices increase less or decrease more than the world prices, the region will consequently increase its exports. That price is also dependent on costs, such as wages, productivity grow (the change in costs per unit produced), exchange rates, etc. The most relevant element of this diagram is the way in which increasing output leads to increasing competitiveness (Thirlwall 1975; Setterfield, 1997).

5. Analysis

5.1 Assumptions

In order to keep the focus and avoid research bias, this project will have a few key assumptions. First of all, it will be assumed that labor costs comprise a major part of companies cost structure, influencing the production costs and being the main variable to measure competitiveness. This project will also consider markets working in perfect competition, with prices established by market forces and cost sensitive actors. Furthermore, the exchange rate comparison will always be in real terms (not nominal) so the change can be compared not only with trading partners that use a different currency, but also with other states that use the same currency. That way, the real impact of the change can be evaluated more clearly without suffering bias. At last, when there is not enough information available, representative individual countries will be used in order to make comparisons.

5.2 Starting Point

At the time of its formation, was widely recognized that the Euro area was an asymmetric MU, constituted by heterogeneous countries that were arranged very differently. The differences range from the role of the state in the economy, the nature of exports, labor and capital markets and corporate landscape etc. The different historic pathways of countries through history were in the origin of those differences (Berger & Dore, 1996; Lane, 1995; Whitley, 1992), and the enlargement of the Union caused an even bigger gap between members. To invert that position, The European Commission has adopted increasingly interventionist policies in an attempt to harmonize member states. However, the flood of new EU regulations not only did not eliminate distortions but also helped to create new ones that are increasing divergences (Bernaldo, 1999). In 1999, the majority of economists were skeptical about the potential of EMU, mainly due to the competitiveness factor. That variable ended up revealed itself as one of the biggest creators of the economic distortions. Over the first decade of the euro, wages and unit

labor costs in periphery countries rose relative to the center. As a consequence, their trade and current account balances had deteriorated correspondingly. At the time, these huge deficits were viewed as a consequence of new optimizing capital flows rather than a symptom of lost competitiveness. However, they became unsustainable, and if the competitiveness problem is not reversed, the continuity of the euro zone might be threatened.

5.3 Empirical Evidence of Divergence

One of the most influential factors that created the European crisis was the classic balance-of-payment problem of the peripheral countries such as Greece, Italy, Ireland, Portugal and Spain. A mix of overvalued currency and cheap credit contributed to a degradation of the current account leading to successive deficits that created an unsustainable situation. That fact can be spotted in **Error! Reference source not found.**.

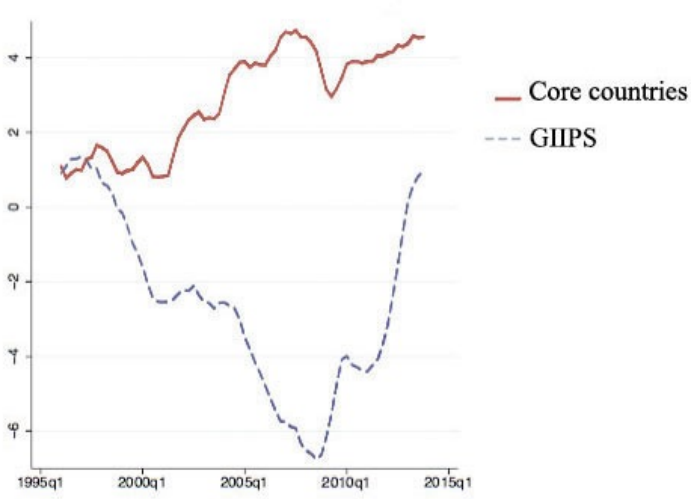


Figure 2: Current Account - GIIPS vs. Core (1995-2015)
Source: Eurostat

In the year of 1995, both the GIIPS and Core countries had a positive current account, with the GIIPS having a slightly better position in that variable. However, that situation was largely reversed when countries started their preparations to join the MU. That preparation had as a base the Maastricht criteria, which defined the conditions for adherence to the EMU. Among other criteria's the treat established a harmonization of

the exchange rates among member states. As a consequence, countries would need to have a type of "fixed exchange rates", losing part of their freedom to control monetary policies. The current account decreased until the time of the financial crises, when the adjustment programs imposed by the EU started. After that, the current account recovered to previous levels.

However, as demonstrated in Figure 3, those adjustments had costs. In the year of 1995, the unemployment rate in the GIIPS was almost the same level as in the year of 1991. It even decreased 5% just before the beginning of the financial crises. However, when the financial crisis started, due to the restrictive spending policies and the degradation of the business environment, that value escalated quickly to more than 5%. At the same time, core countries had the exact opposite movements; they increased their surplus in the current account and had a slight decrease on unemployment rates when comparing with the year of 1991.

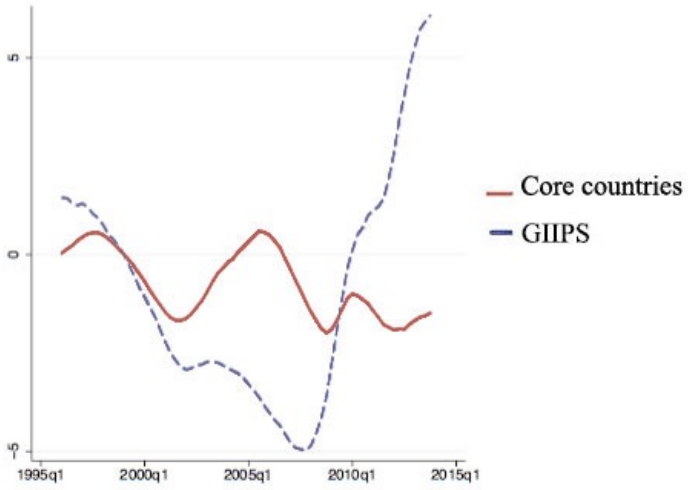


Figure 3: Unemployment - GIIPS vs. Core countries (1995-2015)
Source: Eurostat

In addition, Figure 4 shows that in the same period, the inflation grew faster in peripheral countries than in the core countries, increasing the real exchange rates in these areas.

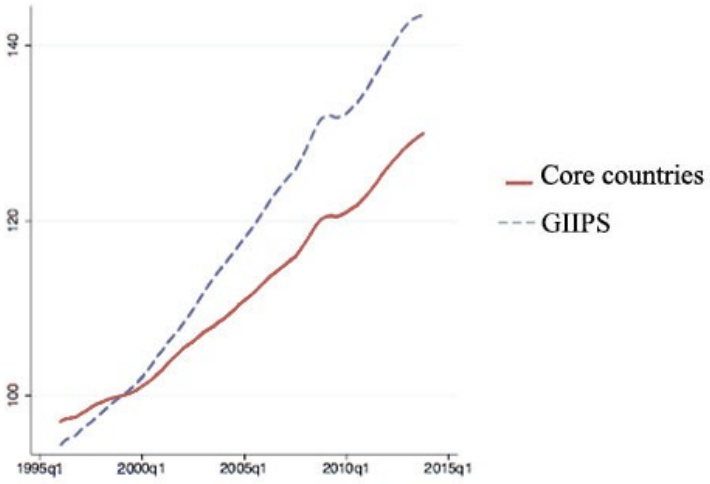


Figure 4: Inflation, GIIPS vs. Core countries (1995 - 2015)
Source: Eurostat

The inflationary problem becomes even more relevant when comparing the bilateral real exchange rates of Euro-zone countries (based on export prices) with respect to Germany.

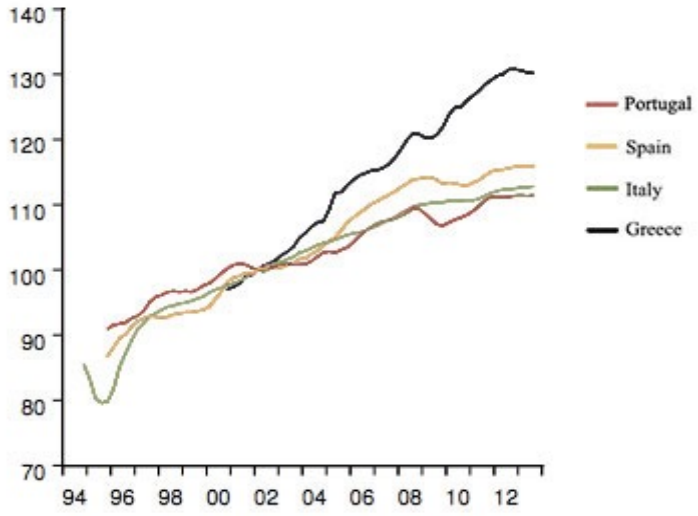


Figure 5: GIIPS bilateral real exchange rate comparing to Germany (1994 - 2012)
Source: Eurostat

Figure 4 demonstrates that, since the adoption of the euro, the real exchange rates of Greece, Italy, Portugal and Spain have increased from 10% to 30% with respect to Germany until the end of 2013. In contrast, when looking at Figure 5, the real exchange rates of core countries, such as France and Netherlands have maintained their levels in late 1990s.

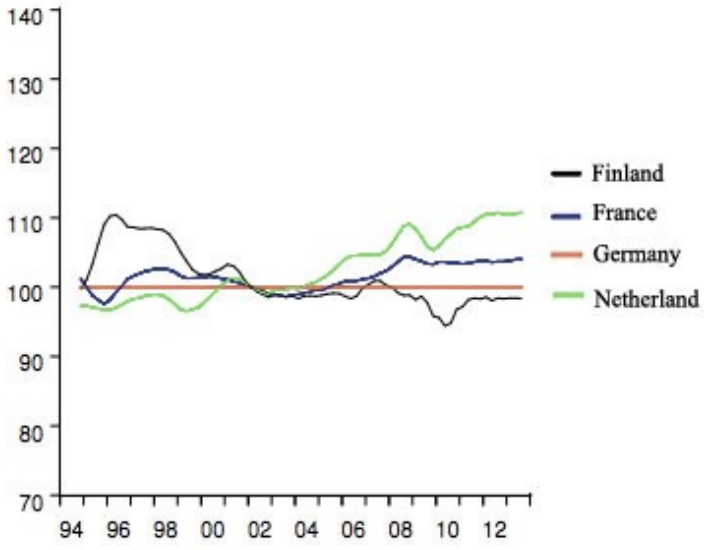


Figure 6: Central countries bilateral real exchange rate comparing to Germany (1994 - 2012)
Source: Eurostat

The real exchange rate gives a clear picture of the situation, and it translates in a real loss of competitiveness. In order to reduce inflation in the periphery and keep peripheral countries competitiveness, a tightening of the monetary policy was needed. However, that responsibility did not depend on the countries anymore but on the Central bank. As the European central bank intervention depends only on the average of the indicators, it failed to do so. The real exchange rate misalignments substantially eroded the already weak position of these countries, increasing divergences in the area. That was the major cause of the increasing private and public debt in affected countries (GIIPS), which was easily financed with cheap money due to the convergence of European interest rates. That convergence is evident in Figure 7, which shows that in 1995 (Preparation for the EMU), the peripheral countries exchange rate started to decrease, reaching the same level as the core countries in the year of 2000. After stabilizing for around 8 years, it bounced back to the previous values, due to the 2007 financial crises.

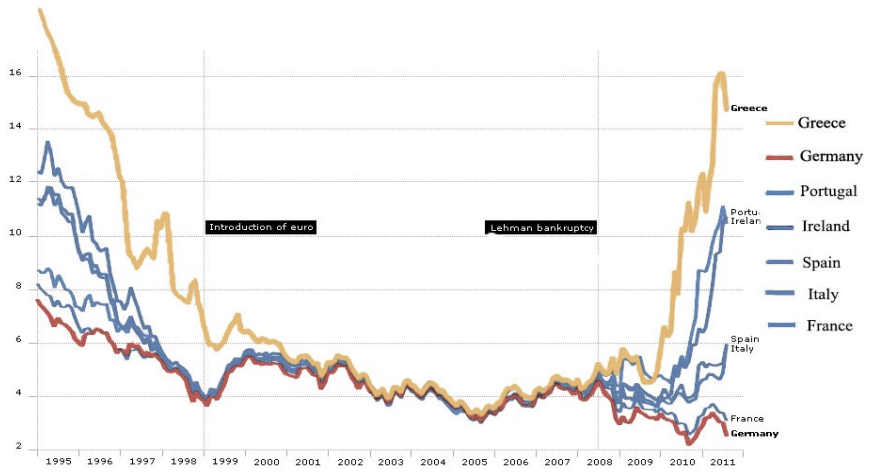


Figure 7: Development in Interest Rates on 10-year Government Bonds (1995 - 2011)
Source: World Bank

The increasing level of debt caused by the successive governmental deficits (Figure 8) lead to an increasing risk in lending money to these countries. However, markets did not respond by raising the interest rates. Lenders assumed that a bond issued by any government within the MU was equally safe. That factor helped debt to rise even more quickly since the interest rates did not reflect their real value. Between 2001 and 2008 (as seen in Figure 7), a bond issued by the Greek government would pay practically the same interest rate as Germany, although they had very different risk and sustainability.

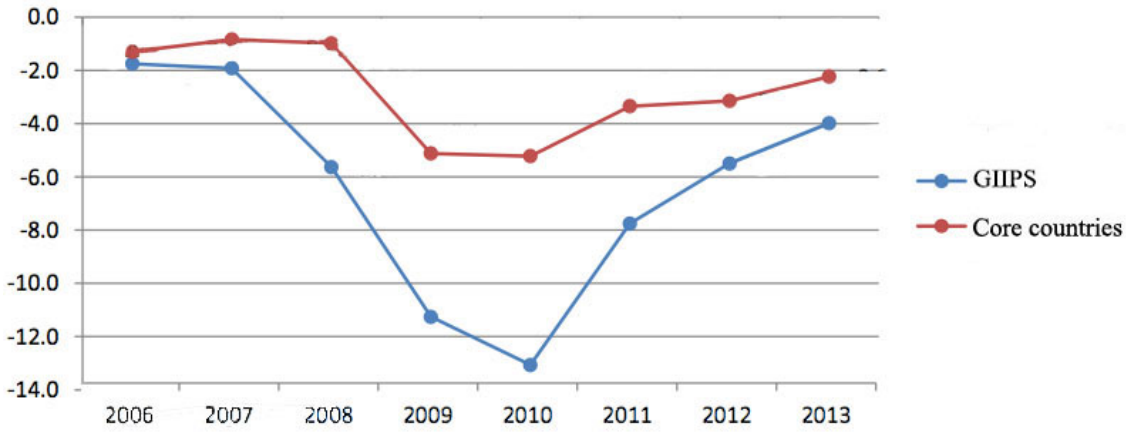


Figure 8: Budget Deficit in % of GDP in the Euro Area (1992 - 2011)
Source: World Bank

Before the formation of the MU in 1999 a large deficit would lead to high interest rates or declining exchange rate, and they would incentive countries to reduce their borrowing. However, at the creation of the MU, these warning signals were completely eliminated

and they not only did not reflect some countries deficit or public debt but also moved in completely opposite directions in many cases. As a consequence, some countries had incentives for governments and banks to borrow too much.

With the 2007 crisis, some countries in the EMU started to reveal unsustainable public and private debt levels, lenders realized their mistake in regarding to all EMU countries as equal and interest rates started to rise in the most vulnerable countries (GIIPS). That sudden rise in interest rates harmed these countries, since they were relying on the stable low interest rates and lead them close to insolvency. The high interest rates payments implied an even larger burden in these countries.

After the first countries started to face liquidity problems, the interest rate in other periphery countries rose even more, which increased the pressure in the region and the fears that they would never be able to repay the existing and accumulating debt. In the aftermath of the crisis, Greece, Portugal, Ireland and Spain declared insolvency, and needed intervention from third parties in order to face their compromises. Greece even negotiated a partial default where some holders of Greek sovereign debt agreed to accept a 50 percent write-down in the value of their bonds.

In sum, in a macroeconomic perspective, a mix of overvaulted currency and misleading interest rates were in the origin of the divergences within the EMU. It is obvious that without adjusting the real exchange rate of peripheral countries, it will be extremely difficult to resolve this crisis. However, when analyzing the situation more closely, in a business and microeconomical perspective, these differences are caused by a completely different set of variables. The following chapters will give more details for the causes of these divergences and proposing a resolution plan.

5.4 Resemblance to Hancké's competitiveness framework

The similarities between Hancké's competitiveness Framework (Chapter 4.2) and the empirical data collected are evident. The two extremes of competitiveness presented by the author are verified when comparing PIIGS with the core countries of the Monetary

Union. At first, there is acceleration in the relative growth of labor costs, leading to a deterioration of the real exchange rate. That growth caused an exchange rate valuation in these countries, directly affecting their productivity and reducing their competitiveness. Then, as described by Hancké, an increase in the domestic prices (inflation) was verified, causing the rise in the price of domestic products and deteriorating the exports performance of GIIPS. That factor directly caused a decline in employment deteriorating the current account of the countries affected.

The countries more affected by the crisis were the ones that had excessive wage growth (fixed exchange rate related), mainly because they had rigid labor markets. The only way to facilitate the adjustment would be to reduce the relative real unit labor costs in these countries. Another option would be depreciation of the nominal exchange rate, but for that to happen, the way EMU approaches monetary policy would need to be changed.

5.5 Geographical Challenges

Over the past decade, new economics of competitive advantage starts to evaluate the role that geography may play in determining the trading performance of nations. These authors state that, to understand trade, it is necessary to understand the processes leading to the local and regional concentration, and why some regions are economically stronger than others. In his work on Economic geography, Krugman (1991) defends that location matters when approaching this subject. The author adds that economic activity of particular industries or clusters of industries has a strong tendency to concentrate in space. The economic structure of a country is influenced by contingency, path dependence and the initial conditions set by history and accident (Krugman, 1993). Adeel, 2005, addresses this question when affirms that remote countries distant from major markets and situated far from main trade and shipping routes, are often marginalized in international trade and are less able to exploit economic opportunities and trade offers. These countries are frequently stuck in a narrow range of exports constituted by primary commodities. This is due to the fact that labor-intensive products are increasingly subjected to competitive pressures in the international market, and

companies need to operate with low profit margins and efficient supply chains, making the transportation costs even more important. Furthermore, there is an increasing dependence on intermediate goods, increasing the pressure on industries operating in the periphery (Radelet and Sachs, 1998). In the same line, United Nations (2003) confirms that a low access to major markets contributes to the countries dependence on natural resources and consequent exposure to major fluctuations in commodity prices.

Within the EMU, peripheral countries remained heavily dependent on primary sectors with high value added products, representing a small share of the exports when comparing to their central European counterparts. Pitelis (2012) demonstrates that industrial products produced by GIIPS are mostly low value added products, with a small fraction being high value added. Those products do not need a high degree of specialization, and are more dependent on the market prices. It means, that when the economies suffer a shock, the fluctuation will be higher due to the lack of specialization and diversification.

The high transportation costs are a part of the problem as it can limit expansion and trade diversification. In this case, geographical distance acts as a natural barrier to trade, and can be a major influence when measuring competitiveness. Therefore, in opposition to the OCA theory, a MU, instead of leading to a movements of firms and investment toward depressed and peripheral regions, it stimulates the economic activity in favor of growth regions because these are the areas that already have a comparative advantage in terms of access to markets, inputs, expertise, and business infrastructure. (Krugman and Venables, 1990).

Although, the removal of barriers to trade and free movement of capital and labor will increase the competitiveness and inflow of capital in low-wage peripheral regions. Due to transport costs, the advantages are likely to be outweighed by a bigger concentration of industry and employment in the high-wage core regions because these areas have the largest markets, well-developed external economies and infrastructures, and a comparative advantage in terms of relative accessibility.

Adeel's, Krugman's and Venables's perspectives might help to explain why some countries in the EMU have a lower diversification and economic strength, and why they are more likely to suffer from external shocks. Looking at this problem through the cumulative growth model (Chapter 4.4) perspective, it is probable that the advantage some countries have at the beginning of the EMU will be enhanced over time and increase divergences within the area.

5.6 MNC's distribution

After an evaluation over MNCs dynamics and distribution, a strong correlation was found between these variables and regional competitiveness. Thus, it is necessary to better understand these variables in order to answer some pertinent questions: Are peripheral countries dependent on MNCs for innovation? Can peripheral economies apply MNCs expertise into their innovation systems? Is the existence of home MNCs an important factor in competitiveness and economic performance?

When evaluating the regional industry concentration in the United States, Steed (1971) perceived an interesting fact. The author concluded that MNCs are not only in the origin of the decline of some industrial districts but also the responsible for concentrating production into more dense industrial areas. As seen before, in monetary and trading terms, the EMU works as a country, and if the same pattern is followed within the area, the trend would be for the production to concentrate into regions that have a higher industrial concentration and the consequent decline of regions that have a weaker industrial fabric. In addition, Scott (1992) demonstrates that even in industrial clusters, where small and medium size companies predominate, MNCs usually play a central role. They are not only important by themselves; they also sustain a whole landscape of small and medium sizes companies that directly or indirectly depend on them. That statement is supported by Krugman's (1993) regional and metropolitan concentration model. The author demonstrated that the "centripetal forces" which hold a region together could be derived from the interaction of economies of scale with transport costs. These regions create economies of scale, increasing the incentive for firms to concentrate production in

that location. With increasing product diversity, internal economies and agglomeration become more closely linked.

Furthermore, it was demonstrated previously, the fact that some countries are geographically isolated decreases the contact with markets, information, technology and the achievement of economies of scale (Keeble et al., 1988), originating different social and economic structures in the peripheral regions. It is then reflected in terms of size, nature of firms, labor skills, expertise, innovation activities, social and political attitudes and level of infrastructure (Keeble et al., 1988). In order to empirically evaluate the accuracy of the information, an evaluation of MNCs distribution within the EMU area is necessary. Table 3 presents the distribution of the 700 more valuable MNCs by EMU country in 2004.

Table 3: Distribution of the 700 MNCs with the highest value in Europe by home country (2010)

Country	Number of home MNCs	MNCs (% total)	Accumulated percentage
United Kingdom	208	29,7%	29,7%
Germany	133	19%	48.7%
France	79	11,5%	60.2%
Sweden	58	8,5%	68.7%
Finland	42	6%	74.6%
Netherlands	34	4.9%	79.6%
Denmark	31	4.7%	84.3%
Belgium	26	3,8%	88.1%
Italy	25	3,7%	91.8%
Austria	21	3%	94.8%
Spain	13	1,9%	96.7%
Ireland	8	1.3%	98%
Luxemburg	3	0,4%	98.4%
Czech Republic	2	0.3%	98.7%
Greece	2	0.3%	99%
Hungary	2	0.3%	99.3%
Poland	2	0.3%	99.6%
Slovenia	2	0.3%	99.9%

Portugal	1	0.1%	100%

Source: Own creation

The table clearly demonstrates that MNC's are not evenly dispersed over the area, being concentrated in the leading central economies. By themselves, UK and Germany possess close to half of the total of MNCs included in the study, while peripheral countries have an almost irrelevant share of the MNCs.

In addition, there is a consensus between authors that the value added per employee (productivity) increases with company size (Eurostat, 2015). An economy featuring mostly micro and small firm structures tends to have disadvantage in terms of aggregate efficiency vis-à-vis an economy dominated by larger companies. When analyzing the corporate landscape of European countries, a pattern can be found.

Table 4: Corporate landscape by firm size as percentage of employment (2003)

Country	- 9	10 - 49	50 - 249	250 -	Dominant Size
Austria	37.0	19.0	15.5	28.0	Micro
Belgium	40.0	16.5	13.0	30.5	Micro
Denmark	35.5	20.0	17.0	27.5	Micro
Finland	34.5	15.0	15.0	35.5	LSE
France	37.0	16.0	13.5	33.5	Micro
Germany	34.0	18.0	13.0	35.0	LSE
Greece	**57.0**	17.0	13.0	**13.5**	Micro
Ireland	25.0	23.5	21.0	30.0	LSE
Italy	**57.0**	17.0	10.0	**16.5**	Micro
Luxembourg	24.5	24.5	24.5	27.0	LSE
Netherlands	32.0	18.0	16.0	35.0	LSE
Portugal	37.5	23.0	18.5	**21.0**	Micro
Spain	**50.5**	20.0	11.5	**18.5**	Micro
Sweden	38.5	16.0	13.5	32.0	Micro
UK	32.0	15.0	12.5	41.0	LSE

Source: Own Creation

Peripheral countries corporate landscape is predominately dominated by Micro enterprises with a low proportion of large enterprises (LSE). In Greece, Italy and Spain, micro enterprises are responsible for more than half of the employed population, while large corporations have a share inferior to 20%. It can be seen that the peripheral countries have the lowest proportion of population employed in large corporations. On the other hand, core economies such as UK and Germany have a large share of the population employed in these companies.

Large corporations are referred to have a higher productivity per employee and efficiency than small companies. As such, the table gives an insight over the reasons for divergent productivities within the EMU. As core countries have a bigger share of their population employed in large companies, they tend to be vis-à-vis more productive than their peripheral peers. On average, the population in countries with bigger companies size will create more value than countries with smaller size firms.

5.7 Reasons for Agglomeration

Marshall (1890) found that the location of multinationals is mainly influenced by two factors: first-nature location, which motivates firms to invest in a location, such as market access and its comparative advantages, agglomeration forces, including proximity with suppliers, scale economy in factor markets and knowledge spillovers.

Transportation costs are detrimental in determining the optimal trading distance between suppliers and buyers and induce companies to locate more close to them. MNCs are specially sensitive to these costs due to their large volumes of sales and intermediate products. They are usually the largest customers of upstream industries and the largest suppliers of downstream industries, the output-input relationship in these firms is usually higher than between average firms. Firms' proximity to one another also protects workers from firm specific shocks. As a consequence, workers in these areas are often willing to accept lower wages. In addition, externalities can occur when workers move from one company to another. Usually those workers have specific training that is well suited to most multinational firms, and competitors have a strong incentive to lure them. It

accelerates the flow of ideas which facilitates innovation and the development of new technologies. Knowledge can be transferred from one firm to another through the movement of workers between companies, through interaction between people who perform similar jobs, or direct interaction between firms. This is supported be Navaretti and Venables (2006), who predicted that MNCs might have spillover benefits from establishing firms close to other MNCs. Due to the MNCs large capital investments, geographically concentrated industries offer better support for capital goods and reduce the investment risk (due to the existence of resale markets).

5.8 The Innovation Problem

The repercussions of MNC's concentration have more than economic consequences. They also influence innovative activities in countries and can have a long-term impact over those variables.

Investment in R&D spawns innovation, which has been identified as one of the main variables related to regional development and economic growth. There is strong evidence that innovation is connected with firm size (Kafouros, 2005). R&D activities are a major factor for technological and economic prosperity, either directly (turnover and profitability) or indirectly (Employment, productivity, competitiveness). Researchers also found that innovation has a positive effect in the volume exported and trade balance. Periphery countries in Europe show a very poor R&D investment comparing to other developed countries. That fact is not a surprise, since it was demonstrated in the previous chapters, that the geographical position of these countries decreases the contact with information, technology and the achievement of economies of scale, therefore being more difficult to incur in innovative activities (Keeble et al., 1988). In order to innovate, these countries and firms must invest in R&D (in-house or out-sourcing), and engage highly skilled labor that is able to cope with complex technological problems. There is evidence that R&D investment is not evenly spread over firms, large firms are found to invest relatively more in R&D than small firms (Kafouros, 2005). Furthermore, numerous studies have found that R&D tends to be concentrated in industrial clusters. It plays a more vital role in creating innovation in central than in peripheral areas. This fact helps to

explain the differences in R&D between regions in the EMU. Peripheral countries have a predominance of small and medium companies, lacking in MNCs, they are expected to have a poorer performance in R&D expenditure than their core counterparts.

Both expenditures in R&D and high tech exports are lacking in these countries, especially Portugal and Greece, the ones that have the smallest amount of MNCs. Figure 9 demonstrates the R&D investment as percentage of GDP. Again, Germany stands out from the rest, with an increasing percentage of the GDP being guided to R&D (2,85% in 2014). At the same time, the countries from the periphery have an expenditure of about 1.25% of the total, which is almost half of the EMU average. Greece expenditure is even lower, with not more than 0.8% of the total GDP.

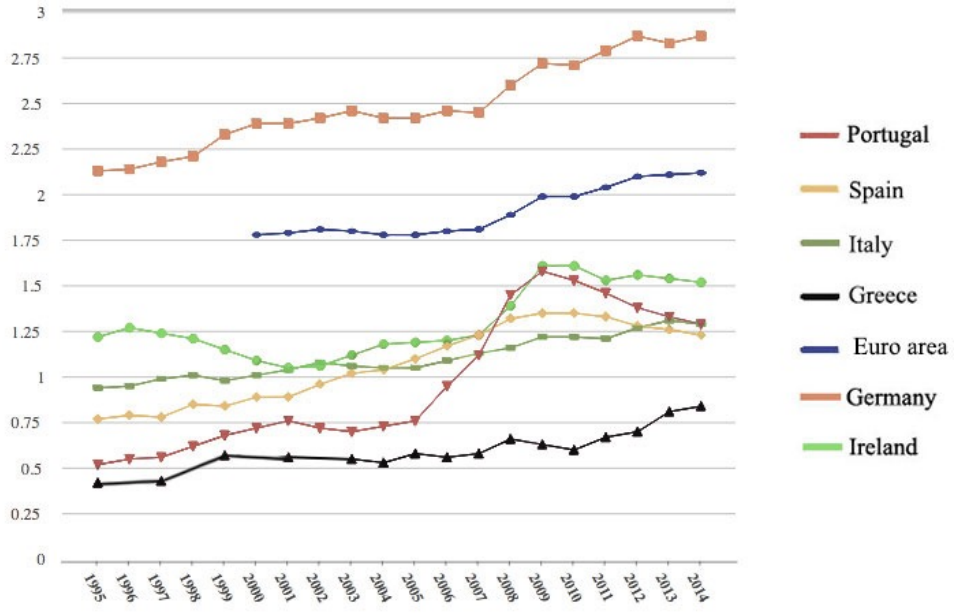


Figure 9: R&D expenses as % of GDP (1990 - 2013)
Source: World Bank

Figure 10 is a consequence of Figure 9, showing the proportion of high-tech products in the total exported. With low R&D, high-tech products will be strongly affected. As referred before, high-tech products are essential for the creation of value and economic growth. They are the ones that bring more value added, development and serve as a stabilization tool due to their lower vulnerability to external shocks. As the figure

demonstrates, all peripheral countries have extremely low values compared to Germany. The proportion of high tech exports in Portugal and Greece decreased over time and was below 4% in 2014. Italy and Spain had a slightly better performance with a stabile value of 7% and 5%. In the same period, Germany had a value close to 15%, which gradually increases overtime. As such, the difference continues to grow. Peripheral countries face a deteriorating performance and core countries facing the opposite trend.

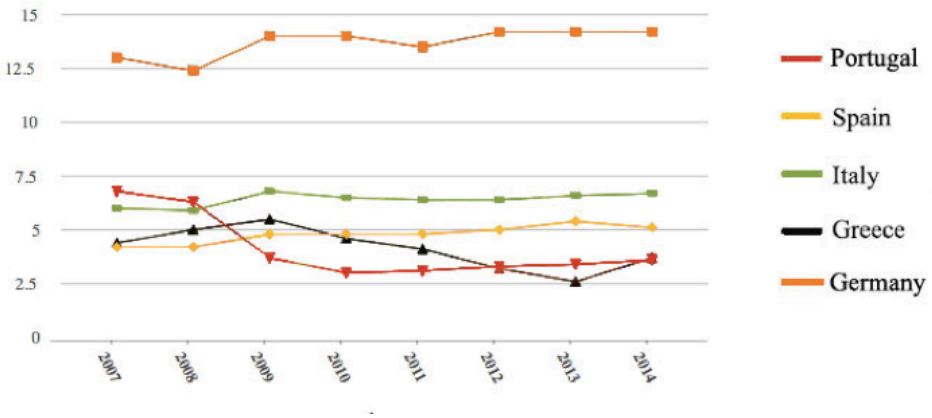


Figure 10: High-Tech exports as % of the total (2007 - 2014)

Source: World Bank

That fact makes it even harder for peripheral countries to revitalize their economies, since without R&D there is no specialized production and consequently low value creation. This fact should be approached as a chronic problem and peripheral countries need to be aware of the importance of attracting R&D. A big share of the R&D in these countries comes from MNCs. However, this fact is not due to the amount of MNCs but mainly because of the low investment of domestic firms in R&D. As such, although the presence of R&D investment of MNCs in these countries is low, they represent a big proportion of the total investment. When looking at the total amount of investment in R&D, the peripheral countries are far behind, and a small investment in the core would be proportionally bigger in the peripheral ones.

5.9 MNCs advantages

Various studies from OECD, demonstrated that medium-sized companies sustain greater losses in the course of a crisis. Large companies partly compensate for the low growth in the area by boosting their commercial relations with other countries and being less dependent on domestic banks. As such, in the presence of an isolated shock or change in monetary policies, MNC are less vulnerable to it and can use their extensive network to quickly find more efficient ways to remain competitive. On the other hand, small and medium size companies rely on local suppliers, local banking system and are more vulnerable to the country's taxation, limiting their ability to overcome such shocks.

It is referred by many papers that MNCs and their branches may have access to more sources of finance than local firms, are usually better informed about them and may be able to exert influence on the price or availability of funds. In periods of restrictive credit MNCs are known for enhancing their competitive position and reduce the effectiveness of monetary policies (Robbins, 1973). Parent companies usually extend loans to subsidiaries when it is difficult to access credit and provide them with better interest rates than local firms, mainly due to their high bargain power and low associated risk. This implies that MNCs are aware of their international presence and use that in their advantage. Furthermore, a study by Reuber in 1972, demonstrated that local firms were negatively related to the liquidity of the domestic corporate sector, MNCs used their superior financial ability to acquire local firms during tight financial situations when locals faced financial difficulties (Reuber, 1972). In sum, in periods of financial distress and difficult credit access, MNCs frequently take advantage of their position and acquire smaller competitors at lower prices than normal, increasing their competitiveness and market share. Blonigen (1997) refers that currency depreciations can have the same effect. It represents an increased incentive for foreign multinationals to purchase local companies and exploit their intangible assets.

As MNCs rely more in exports than local companies, they are less vulnerable to internal shocks. As a big share of their input has external origins, they are less affected by inflation or real exchange rates fluctuations in the country. Their multinationality allows them to be more able to change suppliers if the situation calls for it. If there is high

inflation in the host country and the input prices increases, they might consider an international supplier. On the other hand, local companies are restricted by their network and have less flexibility to change their suppliers. That way, MNCs can keep costs low and remain competitive.

The higher productivity of MNCs is ultimately reflected in the higher wages paid by these corporations (Görg & Strobl, 2002; Lipsey and Sjöholm, 2001). This is mainly attributed to firm specific assets that give them a competitive advantage over local firms. As such, when domestic firms and MNCs compete in the same labor market, domestic firms will automatically have to pay higher wages to attract skilled workers. This fact decreases the quality of labor supply for local companies that can ultimately impact their productivity. Furthermore, it stimulates skilled people to become workers instead of entrepreneurs, due to a higher attractiveness on job offers. The result might be that MNCs cause the number of domestic firms to fall (Görg & Strobl, 2002).

Local companies less advanced technologically and lower productivity do not have ability to compete with MNC in attracting the most skilled workers, or they risk an unsustainable spike on labor costs. MNCs are “price makers” in the job market, while local companies are “price takers”. As such, MNCs will have a much higher capability to control the growth of labor costs than local companies. That fact is especially important in crisis periods when companies are forced to cut costs. The high competitiveness of MNCs makes them more able to manipulate wages, keeping costs under control. On the other hand, local companies have an inferior ability to manipulate costs, being more susceptible to external shocks.

In sum, MNCs have advantages over local firms in many different levels, and that factor might be directly reflected in the competitiveness of both types of companies. According to many authors, these advantages will allow MNCs to crowd out local companies and gain market share over time (Sleuwaegen, 2003).

5.10 MNCs cumulative market share

The competitive advantage of MNCs over local firms is evident, and this chapter will demonstrate the cumulative characteristics of it, especially in periods of crisis. The competitive advantage of MNCs would not be a problem for host countries if the spillovers they originate remained in the country. However, the evidence demonstrates that it is not the case. From profit expatriation to patents protection, MNCs avoid positive spillovers in the Host country's economy and try to maximize their efficiency keeping its competitive advantage. As such, MNCs not only have a big share of the market, but also pay fewer taxes, have better credit conditions and repatriate profits. These profits are usually repatriated to their home country where the headquarters are established. They pay the respective taxes and then use them for a set of different objectives from R&D to investment.

At this point, a flow of resources from host to home countries is evident. When analyzing the distribution of MNCs over space, some conclusions can be drawn. First, the core countries in Europe are home to the greatest majority of MNCs in the continent, while peripheral countries are home to a tiny share of the total (as seen in chapter 5.5). Most MNCs present in peripheral countries are subsidiaries from abroad. As such, in the long term, there will be a flow of capitals from peripheral to core countries. In

Figure 11, a model demonstrates the effect on host countries.

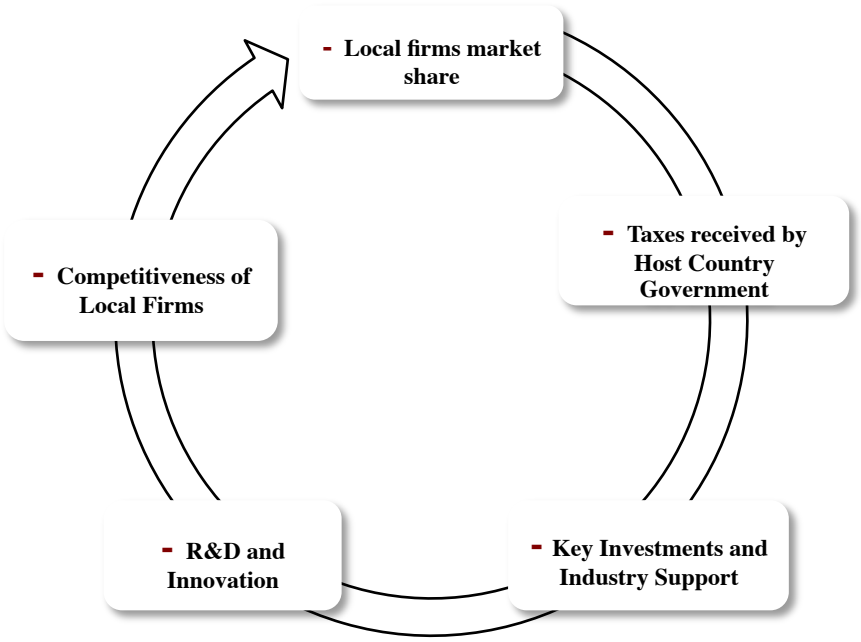


Figure 11: The MNCs cumulative effect in Host countries

Source: Own Creation

The more market share MNCs possess, the less taxes host government's collect (with everything else constant), especially when considering profit repatriation and the big share of imported goods. Part of the VAT in these goods is paid abroad and they bring economic dynamist to other areas. As a consequence, host countries will have a lower budget than before and less ability to support local industry and key investments. That fact will have direct consequences on R&D activities, reducing local companies' capacity to innovate. On the other hand, the main R&D activities of MNCs usually take place in their home countries, being relatively independent from host countries support and being only marginally affected by these dynamics. Furthermore, due to their strong financial position, they do not depend as much on host countries governments. As such, local firms' competitiveness will degrade and diverge from MNCs. MNCs higher productivity will then attract demand away from domestic firms, crowding out part of them and forcing them to reduce production, moving up their average cost curve. As this happens, the cycle starts again, causing a cumulative chain reaction.

This model demonstrates that the competitiveness advantage of MNCs will be enhanced over time, especially in periods of crises, when the model is accelerated due to the higher vulnerability of local companies. When the variables referred in the previous chapter are included, this fact becomes even more evident. The higher capacity of MNCs to attract skilled labor, the ability to obtain better financial deals, the higher bargain power, will all be a factor that enhance MNCs competitive advantage and accelerate the model. Over time, local companies are crowded out, and the industrial fabric of peripheral countries becomes weaker.

5.11 Corporate Balance

MNCs have a crucial role in a country or region economic performance. In the long term, MNCs will extract advantages from the host countries to the home countries, being a main pillar in wealth creation. Then, for countries to prosper, they need to have a favorable corporate landscape that balances their national industry with the foreign competition.

When a country has a big number of MNCs that are spread all over the world, these corporations will be a source of revenue that is central to governance (Levi, 1988). A big share of taxes will be paid in the home country and it will be an important source of business dynamism to the region. Even if the country has a high number of foreign MNCs, they might not become a problem if the amount of home MNCs counterbalances. On the other hand, a country that has a few MNCs will not balance this effect and will face an outflow of resources and a long-term impact on the economic variables.

When there is an imbalance between host and home MNCs, it will ultimately impact on competitiveness. Thus, it is important for countries to have a positive “corporate balance” if they want to remain competitive and improve their current situation. The development of home MNCs or the restriction of foreign MNCs is essential to achieve a favorable situation.

In the European crisis, it is clear that regions face a positive and negative cycle. As seen in chapter 5.5, core countries have most of the MNCs in Europe and improving positive economic indicators over time. This fact is a clear indication of their positive corporate balance. On the other hand, peripheral countries face the opposite situation, they are hosts to international MNCs and they do not have home MNCs to compensate, causing a negative "corporate balance" that is represented in the economic variables of chapter 5.5.

5.12 National vs. supranational interest

The national behavior of countries has always an impact on the state's international behavior, especially with the globalization over last decades, which increased the relevance of national interests and competition. This relation between countries does not focus just on survival but on power, influence and international progression.

One of the main focuses of national governments is to work with the private sector, and provide them with the right tools to ensure its development and progression, bringing wealth and prosperity to the country in the long term. Countries should strive in having a positive "corporate balance", and for that to happen it is their interest to promote and support their local industry and national MNCs. That supporting and protective role is especially important when the industry is still underdeveloped and not ready to face more competitive international companies. Underdeveloped industries can easily be crowded out by more competitive MNCs. However, with the right help, some of these companies can grow in size and economic relevance, representing a long-term investment for nations.

However, in the EMU, countries outsourced part of their sovereignty and power to the supranational entity. For some members, the moment they gave up on sovereignty meant giving up on national interests, creating ideological friction with supranational entities. With restricted protectionist practices, their national industry became completely vulnerable to foreign competition and they loose the ability to efficiently and legally

protect it. That open market is the perfect environment for MNCs to strive and make use of their competitive advantage to gain market share and eliminate possible competitors.

In this scenario, and considering the cumulative framework from chapter 5.9, core countries with the higher number of MNCs will be in advantage. Those corporations will extract wealth from the periphery while eliminating part of the native companies and inhibiting their growth. The situation in the peripheral countries will degrade even more since they lack on national MNCs and they have a negative cumulative "corporate balance". Their national interests are threatened, and the common policies are completely diverging from them (Chapter 5.3 gives a clear picture of that).

Although the situation might not be the ideal for peripheral countries, it can be for the EMU as a whole. The EMU has the objective of acting in the 'common European interest', which is based on union wide variables and entirely independent of member-state national interests (running contrary to the very idea of their existence) and neglecting individual situations. Even when the national interests diverge from the supranational ones, countries are subjected to the EMU integration forces. Countries will partially lose control over their destiny, critically decreasing their freedom and liberty. The supranational entity decides what is best for people and its objective is all about centralization and more integration, eliminating self-determination at the state level.

Conclusion

Within the European Union, supranational and national interests oppose each other at the most basic conceptual level. This fact greatly reduces freedom and liberty of EU member states and is especially harmful for the most diverging members. In the pursuit of the supranational interests, more vulnerable countries in the periphery of Europe are being sacrificed, and with the loss of sovereignty and integration forces, they do not have margin to fight back. The dramatic situation brought peripheral countries to their knees, faced by deteriorating social and economic standards and lack of competitiveness, their hands are tied up and the stabilization tools confined by the successive European integration treats. National monetary policy is practically inexistent and fiscal policies limited. The disadvantages of these countries go from geographical location to corporate landscape. An increasing austerity that caused unemployment and over taxation are strangling the already fragile business environment without showing any results. To aggravate the situation, these countries have a negative "Corporate balance", meaning that home companies do not compensate the resources lost to the foreign companies. Through branch factory colonization; foreign MNCs are stifling and crowding out local companies, reducing the future prospects for the country. Over time, the cumulative characteristics of a negative "corporate landscape" will degrade the capacity to innovate and impact on the governmental budget and economic variables.

In this context, the previous established high growth regions will capture a disproportionate share of the benefits of economic integration. On the other hand, regarding the depressed and lagging regions, the currency area might bring prolonged problems of adjustment and the need for greater levels of spending on regional policies. In this light, country specific imbalances cannot be overcome by a uniform monetary policy. The alternative proposed by this project includes a re-orientation of stabilization policies with new and more efficient macro prudential instruments. It is crucial that these instruments are developed and implemented at the domestic level taking each case individually. By acknowledging the domestic nature of financial imbalances, these instruments will help Europe's economic and financial integration. An efficient but

controversial way to do it would be through revenue sharing. Countries with surplus would share the revenue to mitigate the shock in the other countries. Mundell (1960) refers that "…placing the burden of recession and devaluation in one country or region alone is unsustainable". Since the currency is shared, all countries would benefit from absorbing the economic shock as a whole.

Competitiveness should be used as a driver of change. It could be achieved by shifting the emphasis of reforms towards rebuilding the production base, support for the underdeveloped enterprises and a better control over the economic actors (such as MNCs). Countries have different characteristics and each one of them should develop its national strategy and be free to pursuit it. Otherwise, the future of the EMU might be compromised.

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