

**Crisis in the Eurozone: Analyzing the EMU under the Framework of  
Optimum Currency Area Theories**

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## **Abstract**

In 1961, Robert Mundell pioneered the Theory of Optimum Currency Areas (OCA), which outlined a set of criteria that would allow a geographical region, often exceeding national boundaries, to maximize economic efficiency by adopting a single currency. Since Mundell, numerous authors have contributed additional criteria for effective currency unions, resulting in a collection of OCA Theories. In the 1990s, these theories provided considerable support to the formation of the European Economic and Monetary Union (EMU). However, the recent European sovereign debt crisis has highlighted several critical weaknesses of the Eurozone and a persistent failure to comply with supranational regulations. Ex post research has revealed that, at conception, the Eurozone member states did not meet the proposed criteria for OCAs. Rather, political, social and institutional considerations were highly instrumental in driving the European monetary experiment.

This thesis argues that the roots of the existing imbalances in the Eurozone were primarily caused by the misguided political optimism and overdependence on the Endogeneity Hypothesis of OCAs, which led to the formation of a suboptimal monetary union. We present a discussion of recent measures undertaken by the European Central Bank (ECB) to bail out distressed EMU members and the ramifications of these programs. Through tracing member states' fiscal indiscipline and the failure of the Stability and Growth Pact, this thesis seeks to demonstrate that the Eurozone cannot be expected to function as a true currency union while it lacks an effective, supranational fiscal authority to complement the ECB.

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## **CHAPTER 1**

### **INTRODUCTION**

In light of the recent sovereign debt crisis in Europe, numerous debates have arisen concerning the future of the European Economic and Monetary Union. In particular, the public debt crises in the southern member states have revealed critical economic weaknesses and a persistent failure to comply with supranational fiscal regulations. Furthermore, in the context of various bailouts spearheaded by the European Central Bank and often supported by economically robust member states, it becomes increasingly apparent that the monetary union contains large imbalances that could threaten its long-term sustainability. Amidst the growing uncertainty about Europe's future political and economic trajectory, three primary paths are often proposed as possible solutions. On one extreme, euro-scepticists and other critics have advocated for the disbandment of the Eurozone. This notion of complete disintegration, followed by the reestablishment of national currencies and fiscal sovereignty, gained attention as the initial debt crisis expanded beyond Greece and concerns of contagion throughout the region spread. Alternatively, select member states could make individual national exits from the Eurozone, diminishing the competitiveness gaps among the remaining members and potentially resulting in a more economically cohesive and balanced



region. Lastly, proponents of European Integration have suggested the implementation of a supranational fiscal authority, along with stricter fiscal regulation, to ultimately lead to a renewed “United States of Europe”.

Given the many conflicting opinions about the Eurozone from its formation to the recent crisis, understandably, a myriad of publications have been produced concerning Europe’s crisis recovery strategies and future prospects. Similarly, many economists have used Optimum Currency Area (OCA) theories to analyze the outcomes of the European experiment. Ex post research on the Eurozone has revealed that, at conception, the Eurozone member states did not meet the proposed criteria for OCAs. Rather, political, social and institutional considerations were highly instrumental in driving the European monetary experiment.

Currently, it has become increasingly clear that the Eurozone will not be able to recover from the crisis while remaining in the status quo. Nonetheless, few authors have examined how the OCA criteria can be used to as a tool to evaluate the different future paths for the monetary union. Existing literature has highlighted an evident gap between the criteria proposed by OCA theory and the existing conditions in the Eurozone; however, much of this focuses on the impracticality of OCA theories and criticizes their failed applicability in the Eurozone. Though it is important to acknowledge the flaws of OCA theory, this thesis proposes that the OCA criteria nevertheless have strong potential to help guide the Eurozone on its path to recovery.

Despite certain contradictions and weaknesses, the OCA criteria, unlike the guidelines proposed by the Stability Growth Pact or Maastricht Treaty, are fundamentally grounded in economic theory rather than political considerations. Research has shown that the current imbalances in the Eurozone were, in fact, predicted by an OCA index first developed in the late 1990s. This thesis argues that the roots of the imbalances in the Eurozone lie primarily in the misguided political optimism and dependence on the endogeneity hypothesis that led to the formation of a suboptimal monetary union, as opposed to the failure of the economics of OCA theory. Furthermore, to the extent that can realistically be expected, a movement away from political incentives and return towards the fundamental economic groundings may provide the necessary enlightenment to help develop a sustainable path to recovery.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Optimum Currency Area Theory**

The Theory of Optimum Currency Areas (OCA), pioneered by Robert Mundell in 1961 and followed by his revised model in 1973, presents a series of criteria that, when met, allows a geographical region, often exceeding national boundaries, to maximize economic efficiency by adopting a single currency. The term ‘Theory of OCAs’, however, is potentially misleading, as there is no singular theory that outlines a complete set of criteria to evaluate the optimality of a currency union. Rather, due to the varying, and sometimes contradictory, criteria proposed by several authors, the Theory of OCAs is, in fact, a collection of multiple theories developed over decades as the discourse on currency unions evolved. The criteria indicate the degree of a region’s progress towards economic integration, which has the establishment of a monetary union as one of its final stages. Mundell’s initial theory describes OCAs as both regions with flexible exchange rates that can rapidly adjust to shocks and currency unions formed by different countries. This thesis will focus on the latter, as it is the primary focus of current literature on OCAs, and is most relevant to the case of the Eurozone.

In Mundell's original model, the primary criteria of a currency union were labor mobility, capital mobility, wage flexibility and business cycle synchronicity. He stressed the influence of asymmetric shocks on the economy and suggested that regions with uncontrollable shocks would be better off as a system with flexible exchange rates, rather than a currency union. While a currency union would reduce the transaction costs of exchange rates, its own costs could also be particularly high for regions with asymmetric shocks and price rigidities. As a result, Mundell proposed that labor and capital mobility were critical for evaluating the suitability of a currency union, because they could alleviate some of the inherent costs incurred. Regarding the division of currency areas, he concluded that currency unions should ideally be established across regions which have internal factor mobility, complemented by external factor immobility.

Mundell's initial model is often used to support the argument that the Eurozone did not, at conception, meet the criteria for an OCA, thus resulting in numerous obstacles that have culminated in the sovereign debt crisis. While this first publication focused more on OCAs as a region with flexible exchange rates, Mundell's 1973 paper, "Uncommon Arguments for Common Currencies", provides a detailed discussion on currency unions, and even qualifies his initial argument on the influence of asymmetric shocks, amending that a common currency should inherently alleviate the adverse impacts of asymmetric shocks by spreading the shock across the entire region. This modification was often interpreted as Mundell's support for the development of the Euro.

Nonetheless, this second and less well-known paper is often overshadowed by the fervor surrounding his original model. In the latter publication Mundell shows that countries faced with asymmetric shocks can mitigate such disturbances by sharing a common currency, which would lead to better reserve pooling and diversification. Compared to the case of floating exchange rates, in which countries individually bear domestic shocks, a currency union allows countries to transfer a portion of these adverse effects to their fellow member states. McKinnon (2004) suggests that Mundell's initial publication (1961) did not consider these possibilities of alleviating asymmetric shocks because "throughout the 1950s and into the 1960s ... capital controls limited the possibilities for international risk-sharing" (p. 696). Since the concept of international risk-sharing and capital mobility were still in its nascent stages in the early 1970s, Mundell had no plausible rationale to consider international portfolio diversification and his revised model of risk-sharing is understandably simple.

McKinnon addresses these limitations by testing Mundell's latter hypothesis under conditions both in which money is the sole financial asset (as Mundell implicitly assumed) and in which bonds and equities also become significant. The primary consequence of McKinnon's paper, "Optimum Currency Areas and key Currencies: Mundell I versus Mundell II" (2004) is his justification that, even when Mundell's assumptions are challenged to include a potentially large array of financial assets, his conclusion that currency unions can mitigate diverse shocks and are thus advantageous for a region of asymmetric countries

continues to hold. Specifically, McKinnon applies the international risk-sharing hypothesis to bonds and equities and demonstrates that in both cases, asset diversification will be most effective for common currency areas. Furthermore, McKinnon's theory was supported by preliminary evidence from the European bond market which suggested the then-recently created EMU was very close to "the ideal of allowing unhindered portfolio diversification for international risk-sharing" (p. 706).

In his analysis, bonds are broadly defined to include all financial assets except narrow money (M1). Most households' bonds are intermediated via financial institutions, including banks, pension funds and insurance companies. Relative to narrow money these holdings are quite sizeable. Consequently, when currency unions suffer from regional asymmetric shocks, there is a high default risk in the bond market. McKinnon reasons that this risk can only be effectively mitigated across diverse regions if they share a common currency. Otherwise, under flexible exchange rates, currency risk created by exchange rate uncertainty will impede international risk sharing. While it is possible that currency risk be similarly diversified across domestic households, the nature of bond and portfolio management prevents such practices. In particular, a Principal-Agent problem develops from information asymmetries between households and financial intermediaries who make portfolio decisions. The principal's inability to monitor the agent's behavior induces bondholders to primarily hold assets in their domestic currencies, thus undermining potential international diversification. This

principal-agent problem is eliminated in the currency unions, however, because non-parallel assets and liabilities denominated in distinct currencies are no longer a risk. Therefore, McKinnon concludes that only currency unions will stimulate free asset diversification across national borders and diminish the inherent risks of asymmetric supply shocks.

Since Mundell, numerous scholars have proposed modifications and alternative specifications for modeling an optimum currency area. The complex and fluid nature of this issue fundamentally impedes the creation of a “one size fits all” set of criteria for identifying an OCA. Among the first publications to add to the OCA discussion was *Optimum Currency Areas* (1963), in which McKinnon proposes openness as another key criterion. Reducing the definition of openness to the “ratio of tradable to nontradable goods” (p.717), McKinnon develops a simplified model to discuss the effects of openness on external and internal balances. The model tries to determine whether a region should have flexible exchange rates with its external surroundings. McKinnon demonstrates that as economies become more open, flexible exchange rates become less effective as a tool for maintaining external balance and even adversely affects the internal price stability. In an open economy, a change in exchange rates produced by shocks will result in greater fluctuation of the overall price index than in a closed economy. For example, a negative trade shock that decreases the exchange rate in an open economy would result in increased prices of tradable goods. In order to re-stabilize the price level, the price of nontradables would have to fall, necessitating

a contraction in domestic demand. Furthermore, open economies sharing extensive trade relations would benefit from forming currency unions because the resulting region would be less open than any of its constituent parts, thus generating a buffer against the effects of exchange rate fluctuations. Therefore, open economies are more suitable for forming OCAS than closed ones. However, his argument is somewhat weakened by the lack of definitive agreement on the standards for optimality itself, a shortcoming that McKinnon acknowledges, but fails to overcome.

McKinnon is regarded as one of the contributing founders of the original theories of OCAs; however, as the global context of currency sharing has evolved, there has been a growing movement to reassess these original works. As Tavlas (2009) notes, the foundational works of Optimum Currency Area Theory were developed in an era quite dissimilar to recent years in key ways. The Bretton Woods system was characterized by relatively limited international capital flows, as well as a range of permissible exchange rate regimes, varying from floating to fixed. McKinnon's openness hypothesis was developed in a framework that allowed for a range of different exchange rate regimes. In contrast, current economies do not have the same spectrum of potential alternatives, while greater capital mobility suggests that economies will choose between the two relative extremes of floating exchange rates and currency unions. Similarly, the limited capital mobility throughout the previous period resulted in more influential



industry-specific shocks compared to the presently more integrated global economy, which better facilitates movement of capital.

Recently, scholars have raised concerns about the validity of McKinnon's theory. In particular, there have been differing opinions over the net benefit gained due to the openness of countries participating in a currency union. In "A Model of an Optimum Currency Area" (2008) Ricci considers both the real and monetary characteristics of an OCA. In his cost-benefit analysis, Ricci broadly defines two countries as constituting an optimum currency area if they both expect positive net gains from participating in a currency union. Contrary to McKinnon (1963) and Tavlas (2009), who advocate that open countries are more suitable for becoming an OCA, Ricci proposes that the net effect of openness is ambiguous.

The two-country simple model argues that, while openness can increase net benefits by eliminating deadweight and efficiency losses associated with multiple currencies, net benefits are concurrently diminished by an increased relevance of trade shocks, which affect currency unions by incurring adjustment costs. In addition, the effect of monetary shocks on net benefits is uncertain. In one aspect, variability in domestic monetary shocks increases a country's net benefits, as the domestic impact of the shock is mitigated by the larger currency area. However, the variability of foreign monetary shocks conversely reduces the net benefits of the domestic country by allowing the impact of foreign shocks to spread. Lastly, the direction of impact on net benefits is also influenced by the correlation between the monetary shocks of the two countries. If the correlation is

negative, the reduction of net benefits would be dampened as the foreign and domestic shocks offset one another, while the same reduction would be worsened by a positive correlation between shocks.

Throughout the 1970s, the first wave of hype surrounding the novel theories of optimum currency areas began to decline. At the time, critics targeted the various assumptions of OCAs and the apparent lack of practical applicability of currency unions. As the possibility of a European Monetary Union gained impetus in the late 1980s, however, scholars revisited the idea of optimum currency areas, leading to additional adjustments of the original theories. Wagué (2012) identifies three main ways in which the theoretical framework of OCA theory was adjusted in this new wave.

Firstly, the original OCA theories assumed a negative-sloping Phillips curve that suggested expansionary monetary policies and exchange rate devaluation would cause a decrease in unemployment. In the 1960s, this view was heavily criticized by Monetarists, who argued that workers would respond to rising inflation by demanding wage increases. However, developments in economic theory leading to a vertical long run Phillips curve invalidated these criticisms and eventually, the theory of the Natural Rate of Unemployment replaced the Phillips curve in the OCA assumptions altogether. This natural unemployment rate implied that policymakers could target inflation rates rather than a desired level of economic activity, thus reducing the cost of losing direct monetary policy control.

In addition, similarity of inflation rates, a previously accepted criterion of OCAs, also came under scrutiny in the 1980s. As Wagué (2012) points out, joining a currency union allows high-inflation countries to benefit from the reputation of low-inflation countries and gain credibility for their own intentions of achieving low and stable inflation. Consequently, this positive spillover implies that inflation convergence may be a desired outcome, rather than precondition, for participating in a monetary union. Furthermore, evidence from the early 1990s revealed that changes in nominal exchange rates, which were considered a desirable alternative to currency unions, were far less effective in absorbing asymmetric shocks than originally believed by critics of OCAs. In fact, studies on exchange rates and trade flows showed large lags in the adjustment period, indicating that, contrary to previous assumptions, exchange rate changes were not necessarily an effective means of correcting external imbalances. As a result of these new adjustments in the framework of OCA theory, the more recent literature suggests that the costs arising from loss of autonomy are generally lower and that the benefits of joining a currency union are higher than originally predicted.

Precisely determining an OCA is further complicated by the development of the endogeneity hypothesis of currency unions, which proposes that OCAs inherently possess a dynamic property of self-reinforcing their suitability for being an OCA. In their seminal study, Frankel and Rose (1998) advocate the importance of endogenous dynamics effect when considering entry into a currency union. Countries that join a currency union will experience an expansion

of trade with other members. Furthermore, countries with more strongly correlated business cycles are likely to receive greater benefits by joining a currency union, due to increased symmetry among cycles. Focusing on business cycle synchronicity, the authors show that there is a strong positive correlation between two countries' trade intensity and real economic activity. Real economic activity is measured by a combination of real GDP, industrial production, employment levels, and unemployment rate. Their results offer an important contribution to the OCA discussion by empirically resolving a key ambiguity regarding how increased trade affects business cycle synchronicity.

The theoretical connection between increased trade and business cycle synchronization was uncertain, as different authors previously hypothesized that greater trade leads to both higher and lower correlation in economic activity between countries. Theoretically, increased trade among nations would lead to more synchronized business cycles if such an increase was primarily due to intra-industry trade. Conversely, as proposed by Krugman (1993), greater trade integration could lead to more specialization, as countries focus on their comparative advantages. This occurs when trade is primarily inter-industry and, as a result of increased sensitivity to industry-specific shocks, business cycles would become less synchronized across trading partners, thereby diminishing the net gains of a currency union. Hypothesizing that the former case dominates over the latter, Frankel and Rose analyzed data on bilateral trade and economic activity

gathered over 35 years from 21 countries, including 14 EU member states and 2 non-EU members of the European Free Trade Association (EFTA).

Their investigation led to highly compelling results and revealed a statistically significant, strong positive link between bilateral trade intensity and correlation of economic activity between trading partners. More importantly, the study demonstrated that this correlation continues to hold when alternative mathematical approaches are used, such as transformation by natural logarithms, as well as direct manipulations of data, such as weighting observations by country size. In addition, the authors showed the correlation to be insensitive to the particular sample used. It remained consistent when based on different quarters chosen from the 35 year period, as well as different country groupings, including in a trial that utilized only European data.

While it may not be entirely correct that these results demonstrate a causal relationship between trade intensity and business cycle correlation as the authors implicitly suggest, nonetheless, the long-term evidence strongly suggests that the correlation between the two are mutually reinforcing. Furthermore, while it is not conclusive that trade necessarily increases synchronicity, the robust correlation indicates that it is highly likely that business cycles will be more synchronized between countries with close trade relations. The study concludes by addressing potential applications of the endogeneity effect to the EMU and suggests that, despite the initial apparent incompatibility of certain countries for candidacy, “the EMU itself can provide substantial impetus” (p.1024) for stronger business cycles

correlation, thus improving the suitability of potential candidates. As a result, Frankel and Rose suggest that the criteria of an OCA cannot be considered purely in a present context, and that countries are more likely to meet the criteria *ex post* than *ex ante*.

## **CHAPTER 3**

### **THE EUROPEAN ECONOMIC AND MONETARY UNION (EMU)**

The European Economic and Monetary Union (EMU) is the community of member states that follow a collective set of policies aimed at achieving economic convergence. These guidelines are divided into three stages, the last of which began on January 1, 1999 and includes adoption of the euro. As a result, the term EMU has become largely synonymous with the Eurozone. Over a decade since the Eurozone was established, the growing divergence among Eurozone economies has become one of the key issues of the ongoing discussion on governance and policy in the monetary union.

Wagué (2012) proposes that the longstanding problems in the Eurozone are primarily the result of large competitiveness gaps among its member states and in particular, between strong economies, such as Germany, France and Austria, and the PIIGS countries (Portugal, Italy, Ireland, Greece and Spain). The divergences in competitiveness are exacerbated by the fiscal rigidity and monetary dependence resulting from membership in the currency union, which requires, but fails to achieve, adjustment through the labor market.

Wagué further argues that the competitiveness gap results from deep-rooted structural weaknesses in PIIGS countries, rather than a short-term liquidity

squeeze. These weaknesses include poor export competitiveness, the inability to devalue currency, weak labor cost competitiveness and high debt levels. In fact, as a result of government indebtedness and rising labor costs, PIIGS countries have become less competitive compared to the pre-Euro era. Inherent weaknesses of the Mediterranean economies, which had long existed before the Euro, are the primary cause of their low competitiveness.

From 2002 to 2007, the Eurozone saw an encouraging trend of positive economic convergence among its member states. However, despite the apparent prosperity throughout this period, the competitiveness gap among the Eurozone member states continued to grow. Using real effective exchange rates (REER) as a proxy for competitiveness, Wagué compares the trends for different economies from 1999-2009. His analysis revealed a significant divergence between strong and weak economies: countries that had been strong from the onset showed improved competitiveness, while the initially weaker Spain and Ireland suffered a particularly large loss in competitiveness and Portugal and Greece worsened slightly. These results are also consistent with data from the World Economic Forum, which developed a Global Competitive Index based on a composite indicator. According to this index, Germany, Finland, and the Netherlands rank at the top of the list, with France and Austria following closely, while Spain, Italy, Greece and Portugal lag behind.

Competition from Germany put considerable pressure on the weaker countries to improve their own competitiveness; however, due to the monetary



and fiscal policy constraints caused by the European Central Bank and the Stability and Growth Pact, these member states turned to growth strategies such as sustaining high demand levels and investment booms in real estate, which ultimately proved unsustainable for producing long term outcomes.

The precise roles and objectives of central-level policy have been disputed since the start of the European experiment. Following the recent sovereign debt crisis, there has been a growing push for stronger coordination and regulation at the EMU-level, despite the hesitation of certain member states, who are weary of the additional loss of sovereignty this would incur.

Scholars have presented various views on the measures required for regional macroeconomic stabilization. For example, in 2003, Mundell argued that, while fiscal policy coordination is required for currency unions, the degree of coordination does not need to lead to fiscal federalism. In contrast, Bukowski (2011) proposes that macroeconomic stabilization requires a total forfeit of individual national policies. In his evaluation of current fiscal disturbances in Europe, Bukowski argues that fiscal policy alone is ineffective for bringing about macroeconomic stabilization in the long run, as it only presents a temporary solution and has a low impact on supply-side shocks.

Citing an OCA criterion, Bukowski advocates the importance of business cycle synchronization for enhancing the effectiveness of monetary policies regulated by a supranational banking system. Furthermore, while flexible wages and changes in labor demand and supply can help boost competitiveness in the

short run, medium- and long-term results can only be sustained through adjustments in labor and capital mobility.

Paul De Grauwe, one of the leading scholars of the European Political Economy, has strongly advocated for a more prominent supranational government presence to stabilize the EMU economy and lead the region towards recovery. De Grauwe (2011) illustrates the key difference between sovereign debt crises in currency unions compared to countries with national monetary policies: In the latter, fears of credit default can be alleviated by the national central bank, which acts as a lender of last resort. Additionally, liquidity is contained within the national money markets, since shrinkages are offset by depreciation and the system can equilibrate itself. However, in currency unions, financial markets hold a disproportionately large amount of power. For example, when fears of default arise in a member state of the Eurozone, investors can sell their bonds and reinvest their euro currency in another euro country, causing liquidity shrinkage in the original country. If a liquidity crisis continues to expand, it may force the government into default, resulting in the solvency crisis that was initially feared. As a result, currency unions are much more vulnerable to fluctuations in the financial markets, which can cause wide-spread extremes of both euphoria and panic.

The multi-equilibria nature of currency unions can cause member states to become caught in an adverse trap. Liquidity shortages and the resultant increases in interest negatively impact domestic banks, triggering a domestic banking crisis.

In such situations, it is difficult for member states to depend on automatic stabilizers, the typical response for countries outside a monetary union. In the Eurozone, where large differences in competitiveness persist among member states, improving competitiveness without devaluation tools can only be possible through internal price and wage adjustments, and deflationary macroeconomic policy. In such cases, De Grauwe (2011) argues that recession, at least initially, is inevitable and may even lead to a larger-scale liquidity and solvency crisis. Thus, the process of improving one's competitiveness against fellow member states is both painful and turbulent.

Eurobonds that are jointly issued by the Eurozone offer a potential internalizing mechanism to ameliorate the spillover and externalities problems. Theoretically, through Eurobonds, struggling member states could access funds on highly advantageous terms by benefiting from the more robust economies. Eurobonds would let member states be jointly liable for any issued debt, thus reducing the spillover effects across national borders. They can also serve as a form of protection from destabilizing liquidity crises by easing potential liquidity shrinkages.

Nonetheless, there has also been considerable resistance against this proposal. The primary arguments against collectively-issued Eurobonds cite potential moral hazard and free rider problems. Given the substantial differences in economic strength and indebtedness of Eurozone member states, establishing a common Eurobond would grant states with high debt and low competitiveness

access to even cheaper credit through the advantage of merging their bond markets with those of stronger members. These concerns reflect the events that occurred during the initial formation of the EMU, when weaker countries, faced with a sudden influx of cheap and readily available credit, experienced a surge of rapid, yet unsustainable growth that was fueled by increased consumption and spending. As a result, several nations, including Germany, Austria and the Netherlands have expressed strong opposition to the idea. In addition to promoting free-rider problems, Eurobonds are also undesirable to states with strong credit ratings, such as Germany, which have continued to maintain their triple-A standards. Issuing a joint Eurobond would negatively impact the borrowing conditions faced by these states and as a result, additional concessions would likely be needed in order to induce such countries to concede to a jointly liable Eurobond. In light of these concerns, the European Commission has also mandated that any potential Eurobond would need to be bolstered by a “substantially reinforced fiscal surveillance and policy... so as to avoid moral hazard and ensure sustainable public finances” (2011).

## **CHAPTER 4**

### **FISCAL POLICY IN THE EMU: THE STABILITY AND GROWTH PACT**

Many of the problems currently afflicting the Eurozone can be traced back to a lack of fiscal discipline and centralized fiscal convergence. In the lead up to the creation of the euro on January 1, 1999 and for over a decade afterward, the main guiding criteria for economic convergence and membership to the Eurozone were outlined by the Maastricht Treaty (1992) and later on, the Stability and Growth Pact (SGP, 1997). The Maastricht Treaty presented a series of conditions that countries needed to meet before joining the Eurozone; however, Demertzis et. al (2000) argue that, rather than creating a trend of real convergence, the treaty simply induced prospective members to create a temporary, unnatural convergence through manipulation of policy tools rather than through structural adjustments.

The primary purpose of the Stability and Growth Pact was to enforce and monitor fiscal discipline; however, Wagué (2012) argues that the SGP was fundamentally based on political, rather than economic, origins and failed to acknowledge the OCA criteria. He further contends that this mismatch is underlined by the “arbitrary manner in which [the SGP] has been applied throughout the years” (p.66).

From the beginning, the absence of a supranational fiscal institution was a key weakness of the EMU, as it has prevented the region from having a much needed centralized fiscal policy. The Stability and Growth Pact was intended to serve as a substitute for this deficiency. According to the Treaty on the Functioning of the European Union, member states cannot be held liable for one another's debt. This stipulation was included in the first SGP to address the potential moral hazard problem that could arise from a common currency. Instead, policymakers believed that strict fiscal regulation could serve as a joint commitment to debt liability in the EMU and stabilization would be achieved through promoting fiscal discipline. Officials hoped that if fiscal discipline was strictly enforced and the budgetary and debt ceilings were met, the SGP alone would be sufficient to prevent unexpected shocks and consequently, a centralized budget would no longer be necessary.

According to the pact original version of the SGP, member states were required to follow the maximum government debt and deficit limit set out by the agreement; those who exceeded this limit were supposed to be subject to an Excessive Deficit Procedure (EDP), followed by economic sanctions if necessary corrective actions were not taken. However, because of member states' fiscal independence from the EMU, the SGP has generally failed in its capacity to maintain fiscal discipline and foster economic convergence.

#### **4.1 Origins of the Stability and Growth Pact**

Since its inception in 1997, the Stability and Growth Pact has been comprised of two primary branches: The ‘preventive’ arm and the ‘corrective’ or ‘dissuasive’ arm. The preventive arm regulates the surveillance of member states’ budgetary positions and coordination of economic policies, as well as ensures that sustainable fiscal policies are maintained throughout the EMU (European Commission citation). In comparison, the dissuasive arm is responsible for regulation on implementing the Excessive Deficit Procedure and establishing the corrective framework for member states with excessive deficit and debt. The EDP details the correction process that should be undertaken by a member state when either its deficit exceeds 3% of GDP, or its government debt exceeds 60% of GDP. Failure to comply with the regulations of either branch of the SGP can lead to economic sanctions. The preventive branch of the Stability and Growth Pact officially came into force on July 1<sup>st</sup> 1998, followed by the corrective branch on January 1<sup>st</sup> 1999.

In 1995, German finance minister Theo Waigel proposed a treaty for joint fiscal policy regulation in the Eurozone, which would eventually become the Stability and Growth Pact (Chang, 2005). Waigel’s primary motive was to establish a credible system to ensure that the newly created EMU would not destabilize the German economy. Of all the initial Euro-area members, Germany faced the greatest cost of abandoning its strong national currency, the Deutschmark, and thus, had the greatest incentive to ensure that the new Euro

would maintain a level of price stability similar to Germany's. In the face of German public unease about abandoning the high successful Deutschmark, the SGP acted as a form of reassurance that the new common currency would be backed by a strong EMU. In contrast to many smaller member states that expected to make substantial economic gains from joining the EMU, Germany was largely influenced by political motives of further integrating itself with Europe and assuaging lingering fears about its geopolitical aspirations (Chang).

The Stability and Growth Pact is viewed as the cornerstone of fiscal sustainability in the EMU. At its conception, the SGP was developed to meet the pressing need for a set of fiscal rules, stricter than those outlined by the Maastricht Treaty, to guide governance in the EMU. In addition to stabilizing the German domestic political environment, Heipertz and Verdun (2004) identify key initial concerns that the SGP intended to address: The need for stronger fiscal consolidation, prevention of potential free riders, safeguarding of the ECB's credibility and overall economic coordination throughout the EMU.

The potential for free riding in the monetary union results from member states abandoning their national exchange rates, which raised concerns about possible negative fiscal spillovers. As a result of the increased interconnectedness, national authorities may experience a reduced disciplinary effect caused by imprudent fiscal decisions, since the consequences can be spread among fellow member states. Furthermore, the risk of excessive public debt weakened the independence of the ECB that was introduced by its 'no bailout clause'. Through



stringent fiscal regulations, the SGP helped appease growing concerns that this distinct clause could be undermined by unsustainable national fiscal policies.

The SGP was also aimed at bolstering the overall credibility of the EMU by ensuring that member states continued to follow responsible fiscal regimes initially set by the Maastricht convergence criteria; however, the Maastricht criteria had a key weakness that was often overlooked, which made it extremely difficult for the SGP to sustain the temporary convergence. Garcia Menendez highlights the important distinction in the nominal convergence resulting from the Maastricht criteria and the real convergence demanded by OCA theory for long run integration. He illustrates the fallacy of expecting regional long-term real convergence, when nominal convergence criteria were used to determine a prospective member state's suitability for entry to the monetary union. Unlike real convergence, nominal convergence is insufficient for facilitating cohesion in the EMU and reducing the negative effects of asymmetrical imbalances. An examination of the EMU's Eastward expansion in 2004 further supports this argument. Despite having met the nominal conditions that deemed them ready to join the Euro, the new member states, Slovenia, Cyprus, Malta, Slovakia and Estonia had a per capita GDP less than half that of the EU-15 average, with a joint economic importance similar to that of Spain alone.

Through analyzing their compliance with convergence criteria, including inflation, exchange rates and public finances, Garcia Menendez finds that if real convergence were the required by the guidelines instead of nominal convergence,

it would take these new states approximately 35 years to reach the EU average (p. 268). Compared to the OCA criteria, the Maastricht criteria were much more flexible, due to “political exigencies of trying to allow as many member states as possible to join the EMU” (Chang, 2005, p.14). Consequently, it was not very surprising when the SGP was shown to be highly ineffective in terms of fiscal regulation and unable to bring about convergence of all the divergent member states

#### **4.2 Violations of the Stability and Growth Pact**

Only a few years after the Stability and Growth Pact was ratified, it became clear that the pact was not sufficient for facilitating fiscal coordination and convergence in the EMU, as was originally intended. Within two years of establishing the Euro area, member states had already failed to meet the mandated fiscal ceilings. In 2001, as a global economic decline hit developed, Italy became the first member to breach the SGP (Fourçans & Warin, 2007). By 2006, Greece, France and Germany were all in violation of the debt and deficit ceilings. Soon, it became increasingly evident that the SGP suffered severe credibility problems in application, as all four member states were able to avoid official sanctions.

Similar to its political origins, the functioning and application of the Stability and Growth Pact have been strongly influenced by political willpower, rather than sound economic theory. Heipertz and Verdun (2004) argue that the politicized nature of the Excessive Deficit Procedure reflects that the essence of

enforcing the pact does not lie in the potential threat of economic sanction, but rather, in “the institutionalization of a fundamentally political pledge to maintain low deficit levels” (p. 770). Without a credible European fiscal authority to tie the political agendas together, the initial framework of the SGP was not realistically capable of enforcing the regulations that it mandated. Chang (2005) notes that “the most powerful sanction under a system of policy coordination is the public embarrassment of ‘naming and shaming’” (p.21).

The deficit ceiling violations in the early 2000s exemplified the SGP’s vulnerability to political manipulation by member states, including the one who originally proposed the pact, Germany. In February 2002, Portugal and Germany were on the verge of surpassing their permissible deficit ceiling (Chang, 2005). Following the standard procedure, the European Commission made a recommendation to issue formal warnings to the two countries; however, this recommendation was dismissed by the Economic and Financial Affairs Council (ECOFIN) out of consideration for Germany’s ongoing election preparations, which would have been negatively affected by austerity measures at that time. Similarly, since Portugal’s violation occurred concurrently with that of Germany, Portugal was able to avoid censure by extension of Germany’s pardon.

Additional weaknesses in the SGP were revealed by the cases of Germany’s second infraction and later on, the one of France. In 2003, ECOFIN again voted to suspend the Excessive Deficit Procedure initiated by the European Commission against these two countries, lifted the existing moderate sanctions

and granted both a one-year extension to reduce deficit levels without interference from the Commission (Garcia Menendez, 2007). This overruling of the Commission's authority revealed two key flaws in the SGP – its susceptibility to national political will and its structural disunity. In response, the Commission appealed to the European Court of Justice, which ultimately repealed ECOFIN's actions. Nonetheless, the entire process called into question whether too much power was placed in the hands of national finance ministers who sit on the ECOFIN council and could potentially form a minority veto group comprising the two strongest founding members of the Eurozone.

Schuknecht et. al (2011) argue that the SGP's Achilles' heel was its weak enforcement provisions. When the pact was created, member states agreed that economic sanctions and fines would not be automatically imposed by the European Commission when violations occur; rather, the transgression must first be brought to ECOFIN, one of ten configurations of the Council of the European Union. Because ECOFIN is comprised of national representatives of member states, such as finance ministers, this separation creates substantial room for bias and political influence. For example, because France and Germany are two of the largest and most influential member states, they hold a significant portion of the voting power in the Council, which weighs votes by country size. Chang (2005) notes that "the reasons for monetary integration were inherently political, so it is no surprise that its operations would be subject to political exigencies, as well" (p. 27).

By 2004, additional warnings had been made against Ireland, the Netherlands, and Greece. Greece was also found to have been misrepresenting its deficit statistics since its initial entry to the EMU, instigating a region-wide scandal and debate over the efficacy of the EMU's surveillance processes (Chang, 2005). In the years leading up to Greece's entry, the government had reported remarkable progress in fiscal consolidation, during which the deficit was reduced from over 10% to 3.6% of GDP. However, when the data concealment scandal arose, it was revealed that Greece had not met the convergence criteria required for entry and in fact, had a deficit over 5% when it joined the Eurozone. While Greece did experience significant growth in the early 2000s, the surge was mostly fuelled by domestic consumption, particularly due to the Athens Olympics. In addition, Greek government debt had seen no improvements since 1993, while per capita GDP still remained significantly lower than the EU average in 2004.

Despite the accumulating violations, however, in all the aforementioned cases, proceedings were extremely slow and continuously readjusted to allow for greater leniency. Although cases of favoritism and political manipulation were most obvious for larger member states due to structural framework of the European Commission and ECOFIN, a number of smaller countries also benefited from the weak enforcement of the SGP.

The separation of central- and national-level fiscal rules in the EMU creates a serious accountability gap between those who enforce the regulations and those who bear the consequences of them. The current lack of a fiscal

counterpart to the ECB generates a structural deficit in the EMU. As a result, the SGP is built upon a very weak foundation. Spending and taxation remain country-level responsibilities and are deeply connected to the democratic institutions and legitimacy of national governments. In contrast, however, the SGP primarily operates through a top-down control and sanctioning system, while avoiding any direct political accountability. Unlike national governments, the European Commission, as an executive body, does not face the same political accountability to an electorate for enforcing EDPs that target deficits and demand spending cuts and tax increases. Such procedures often have very negative social and political ramifications. For example, when ECOFIN did finally take action against Portugal in November 2002 by issuing a formal warning to reduce its deficit level, it led to Portugal's first general strike in over a decade, as citizens protested against the government's attempts to reduce expenditures (Chang, 2005). From a member state's perspective, the SGP does not possess the same democratic legitimacy as do the national parliaments, which must face the consequences of such procedures during election time. De Grauwe (2010) argues that the SGP is unsustainable because it cannot overcome the will of national governments when conflicts arise between central and national bodies and it becomes undesirable to abide by the SGP's regulations. When there is a misalignment of state and central interests, "member states have no incentive to deviate from policies required for stability of their countries" (Gomulka, p.10). De Grauwe proposes that this contradictory problem will persist as long as member states have complete

sovereignty over spending and taxation and are held accountable before their electorate, while EMU executives continue to be isolated from similar consequences.

#### **4.3 2005 Reforms of the Stability Growth Pact**

By the early 2000s, multiple violations of the SGP had led to a call for reform of its regulations. Larger countries, such as Germany and France, were particularly keen on relaxing the stringent regulations and reducing the European Commission's capacity to intervene with national fiscal affairs. In contrast, smaller member states, such as Belgium, which had generally met the fiscal rules, viewed the proposed revisions as unfair manipulations by stronger countries that were unable to meet the deficit ceilings and now looking for a way out (Chang, 2005).

The differences in member states' fiscal positions are strongly linked to their size. As a result, there will always be discrepancies in countries' compliance with supranational fiscal rules. Chang (2005) proposes that size affects a country's economic interests in several key ways. Firstly, fiscal consolidation is more costly for larger countries than smaller ones. Prior to joining the EMU, many smaller states already had a hard peg to the Deutschmark to facilitate their fulfillment of the Maastricht criteria. Consequently, they possessed less fiscal autonomy to begin with, compared to larger countries. In contrast, larger countries suffered more from the loss of monetary autonomy and would be more likely to use fiscal

policy to offset their losses. Lastly, because size often correlates to economic and political strength, larger member states have less fear of political fallout and loss of reputation as a result of breaching the SGP compared to their smaller counterparts.

Despite the reluctance of some countries, however, the 2005 reform of the Stability and Growth Pact ultimately conceded to the influence of larger member states. When the revisions were first being developed, ten member states were in violation of the deficit ceiling (Garcia Menendez, 2007). Unfortunately, rather than amending the dissuasive branch to make the EDP more credible, the EU Council loosened the debt and deficit limits, allowing countries to have a higher level of indebtedness without breaching the pact. This new flexibility was created under the pretext of directing member states towards long run economic growth through public spending and high quality investments. However, as Garcia Menendez reasons, “as a simple fiscal rule like the SGP is flexibilized, [*sic*] ... the likelihood of non-compliance increases and this translates into a weakening of its credibility” (p. 256).

On March 23, 2005, the Stability and Growth Pact was officially reformed to allow for greater flexibility in its regulations by introducing several main revisions (Fourqans & Warin, 2007). One of the main revisions was to make the Medium-Term Objective (MTO) into a country-level responsibility, enabling member states to tailor their own MTOs according to individual economic conditions. Prior to 2005, the official MTO was uniform across all EMU countries



and every member state was subjected to a zero deficit target. In contrast, the new pact granted countries greater discretionary power in establishing an annual budgetary objective, so that high debt countries could strive towards stringent fiscal policies without constraining other member states that already had balanced budgets. Conversely, countries with low debt and high growth potential would be permitted to have an indefinite budgetary deficit of up to 1% of GDP.

Furthermore, the dissuasive arm of the SGP was considerably relaxed by the introduction of 'relevant factors' in the 2005 reform. Under this new regulation, when member states infringe on their deficit ceiling, authorities must evaluate the violation in the context of countries' individual MTO as well as consider all 'relevant factors' before enforcing sanctions. The new pact identified several relevant factors, including budgetary efforts made toward financial contributions to foster international solidarity, quality of public finances and overall debt sustainability. European integration and unification was declared the ultimate goal, which could justify detrimental fiscal burdens on any individual member state. Additionally, a country's economic growth potential and prevailing cyclical conditions at the time of the infringement are to be scrutinized to determine if an exemption can be made.

Lastly, the deadlines associated with the Excessive Deficit Procedure were extended from one to two years. Countries with 'special economic circumstances' may be granted an extra year-long extension to correct their budgets, with an additional possible extension of up to five years in the event of an unexpected

adverse shock (Chang, 2005). Furthermore, if unexpected adverse events occur, this readjustment deadline may even be prolonged indefinitely. The changes made to the dissuasive branch of the SGP aimed to protect member states from incurring sanctions, particularly at times when they are already experiencing an economic downturn. The revisions were highly criticized by the ECB, which was concerned that the more relaxed regulations would lead to destabilizing budgetary disciplines. The ECB threatened to raise the interest rate in order to discourage member states from viewing the new fiscal rules as a license to create debt; however, this threat was not carried through and the ECB has not shown any further indications of taking such action.

#### **4.4 Evaluating the 2005 SGP Reforms**

There has long been a general consensus that limits on public debt levels should be mandatory in the EMU; however, how such limits are determined and implemented has been highly debated. Despite the attempts to improve the Stability and Growth Pact in 2005, scholars have remained pessimistic regarding the reformed pact. Both empirical and qualitative analyses have shed light on lingering problems in the new SGP, which have troubling implications. In one well known study, Fourçans and Warin (2007) use a game theoretic model to assess whether the changes made to the preventive and corrective branches will make the new SGP more effective than its predecessor. Specifically, they investigate whether tightening the preventive arm and relaxing the dissuasive arm

creates incentives for member states to abide by the new regulations, or whether problematic moral hazard behaviors will continue to persist. The authors suggest that, while countries may intend to abide by the preventive regulations *ex ante*, they may later find that the costs of adherence are actually not as high as initially anticipated and consequently, opt to breach the fiscal rules.

This hypothesis is not entirely convincing, however. While the 2005 reforms clearly loosened regulation in the corrective branch of the SGP, the authors' assumption that the new pact will have a more stringent preventive branch is less obvious. Under the new SGP, countries are obligated to cut their public deficit during times of economic prosperity, whereas no such preventive regulation had previously been in place (Garcia Menendez, 2007). However, this is by no means a revolutionary innovation to fiscal policy in general and thus the change is unlikely to bring about any groundbreaking outcomes, especially since it was not supported by any enforcement mechanism. Unfortunately, Fourgans and Warin do not present any arguments why they think that this change represents a much more stringent preventive branch in the SGP. Nonetheless, this oversight does not significantly impact their conclusion, which primarily focuses on the inadequacy of relaxing the corrective measures, and the authors present an overall solid evaluation of the new pact.

The authors model the new SGP by a sequential, multi-stage centipede game that includes a moral hazard element. The game fairly accurately represents the sequential nature of policymaking and implementation, as well as the

imperfect information that countries initially possess about the true deficit levels that depend on ex ante forecasts. The outcome of the game is influenced by countries' incentive to abide by preventive regulation and the effectiveness of countries' individual fiscal responses to unanticipated shocks. The former depends on the European Commission, which may impose economic sanctions if regulations are violated, while the latter reflects individual member states' capacity to use budgetary deficits to help absorb the effects of shock. Countries that can effectively absorb shocks by running deficits are more likely to breach the regulation than countries whose fiscal responses are less effective.

Using backwards induction, the authors find four possible outcomes to the game. Interestingly, the results show that ex post behavior mainly depends on the effectiveness of a country's fiscal response, rather than their budgetary position. Member states with low-efficiency fiscal responses would choose not to breach the preventive rules regardless of whether their budgets are in balance or near deficit. In contrast, member states whose budgets are either in balance or near deficit but who have high-efficiency fiscal responses would have sufficient incentive to breach the preventive regulations. Thus, in order to be effective, the Commission must first reduce member states' incentive to use deficit fiscal policies as a solution to economic shock and increase their incentive to abide by the preventive regulations. Fourçans and Warin suggest that, rather than tightening the preventive regulation, reforming the SGP must be involve strengthening the dissuasive element of the fiscal rule, so that moral hazard

behaviors become much more costly. Schuknecht et. al (2011) also echo this opinion, and criticize the 2005 reforms for failing to implement stricter corrective regulations, as well as neglecting to provide an effective enforcement mechanism for those policies.

Furthermore, others (Eichengreen, 2005; Garcia Menendez, 2007) have claimed that the 3% and 60% ceilings set by the SGP are not grounded in any economic theory and therefore lack reasonable justification. Garcia Menendez argues that “the two numerical references are political... but in no case do they possess a solid economic foundation” (p. 271). He finds no empirical relationship between the numerical bounds and the evaluation criteria for government solvency, as one might expect, given the EMU’s continued concern for price stability. Garcia Menendez also suggests that the SGP has continued to lose credibility, despite these inflexible rules. The one-size-fits-all debt and deficit ceilings, which have remained steadfast at 60% and 3% throughout the 2005 reforms, render the SGP unnecessarily rigid. In theory, these numerical criteria should be advantageous because they are clear, easy to verify and politically-neutral; however, in practice, the expected objectivity is impaired by political interpretation, which typically prevails against the mechanical statistic.

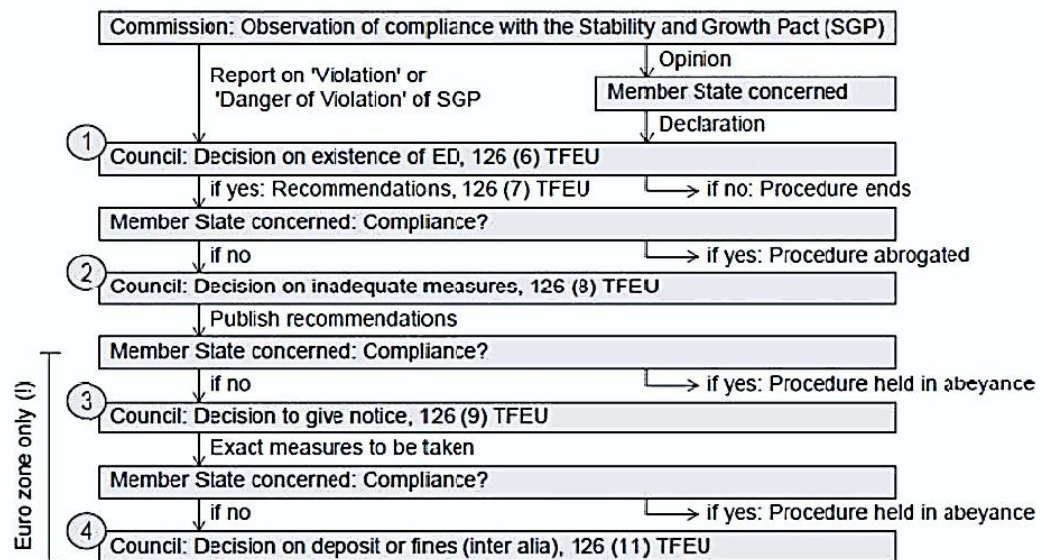
Eichengreen (2005) argues that a critical weakness of the new SGP arises from its inability to reconcile the discrepancy in the European Commission’s monitoring and enforcement power. Under the new guidelines, the European Commission holds greater discretionary power than they did under the previous

pact and is now responsible for determining when differential treatment should be made, given member states' MTOs. In addition, the Commission will need to evaluate whether deficits are the unavoidable byproducts of productive, high-quality public investments and growth-promoting structural reforms, or whether they are simply the consequence of irresponsible consumption. These judgments are made using Debt Sustainability Analysis (DSA), which are conducted on an individual, country-by-country basis. However, as Eichengreen notes, this methodology is marginally convincing at best. Despite being widely accepted by institutions such as the International Monetary Fund, DSA models depend heavily on the particular assumptions made about the chosen variables, such as interest rate, growth rate, or the effects of different forms of government expenditure. Because these assumptions are often arbitrary, member states whose deficit levels were brought into question would have substantial room to challenge any decisions made by the Commission.

The Excessive Deficit Procedures have also come under scrutiny for their complexity and vulnerability to political discretion. Previous studies (Chang, 2005; Garcia Menendez, 2007) have proposed that the most realistic form of censure that can be expected under the current system is peer pressure and public criticism from other member states. Seng and Biesenbender (2012) maintain that leaving the judgment in the hands of member states actually reduces the incentive for proper monitoring and discipline, because the voting members may realize that they could also find themselves in the position of being judged in the future

and as a result, are less likely to enforce strict measures on their fellow member states. Furthermore, because all sanctions require a qualified majority vote to pass, any coalition that holds one-quarter of the votes in the council or represents roughly 40% of the population can block a recommendation by the Commission. Seng and Biesenbender (figure 1) illustrate the long and complex process required to actually carry out the Excessive Deficit Procedure, which requires four rounds of voting that are highly vulnerable to political pressure and thus, collectively weaken its credibility.

**Figure 1**  
**Excessive Deficit Procedure**



Source: Seng & Biesenbender (2012)

#### **4.5 Alternative Fiscal Policy Regimes**

One possible method of legitimizing the Commission's discretionary power would be to give the Commission greater enforcement control to equalize its discretionary power. The Commission's enforcement authority was only negligibly changed by the 2005 reforms, while the true decision making power regarding sanctions remained with ECOFIN. Granting the Commission more enforcement power, however, would also create new problems of its own. The conflict between power and accountability has long been debated by national governments, who are reluctant to cede fiscal power to the European Commission when it cannot be made equally accountable for the consequences of its rulings. Granting the Commission fiscal control would cause national governments to be separated from their own fiscal policies by a small group of Commission-selected, independent technocrats, as well as by the European Commission itself. Under current legislation, the European Commission can only be removed from office by a supermajority parliamentary vote in the event of gross dereliction of duty and is therefore highly unlikely (Eichengreen, 2005). As a result, offering the Commission more enforcement power would only serve to exacerbate the existing accountability deficit by placing the primary oversight of national fiscal policies in the hands of an independent, detached group.

Authors (Eichengreen, 2005; Wyplosz, 2002) have also proposed establishing a supranational fiscal council, analogous to the European Central Bank. Each member state would also have its own fiscal policy board, from which



representatives would be selected to form the EMU-level committee. Under this system, the responsibility of both making difficult fiscal decisions and carrying them through would be transferred back to member states themselves. This could eliminate both the problems of accountability and ceding control of national affairs, since the interests of the national and supranational bodies would be directly linked. For such fiscal reengineering to be truly effective, however, the consequences of breaching the regulations would need to be completely beyond political manipulation. For example, the decisions on permissible deficit size, once made, would need to be strictly binding under almost all circumstances, barring a national emergency. Understandably, countries would view such high costs as unjustified and be unwilling to accept such a direct reduction of their overall fiscal control.

Another alternative solution that has been previously suggested is to replace the SGP entirely with a system similar to the Golden Rule of Fiscal Policy currently employed by the UK (Garcia Menendez, 2007; Creel, Hubert & Saraceno, 2013). This rule aims to consolidate public spending without obstructing favorable investments. Current government revenue is put towards current public spending, while investment spending, with anticipated future returns, is financed by borrowing. As a result, the burden of public spending is borne primarily by those who benefit most from the expenditures. If adapted to the Eurozone, the Golden Rule could increase fiscal flexibility so that countries may better adapt to economic fluctuations. Furthermore, one of the prominent

ongoing criticisms of the EMU is its restrictions of countries from using countercyclical stabilization methods; this problem could be alleviated by a Golden Rule fiscal regime, which would allow governments to loosen, rather than constrict, their budgets during downturns.

However, despite its effectiveness in the UK, the Golden Rule would have serious drawbacks if applied to a large supranational currency union such as the Eurozone. Like the Stability and Growth Pact, compliance with a Golden Rule would be complicated by the mix of decentralized fiscal policies and centralized monetary policy, while its credibility would be similarly weakened by the absence of an effective monitoring authority. Furthermore, the Golden Rule would create a perpetual temptation for countries to misrepresent current spending as investment spending through manipulation of capital account records, thereby forcing unjustified financial burdens on unsuspecting future governments. Recent events, such as the Greek statistical misrepresentation scandal, as well as the general fiscal indiscipline among EMU members suggest that such a temptation would almost certainly induce countries to take advantages of the loopholes in a Golden Rule system.

Lastly, authors have proposed replacing the SGP with a self-regulating Negotiable Permits Market (Casella, 2000; Garcia Menendez, 2007). Inspired by the system of pollution emissions rights, this method would allow member states to purchase and sell rights to budgetary deficit and public debt as a percentage of

their GDP. While deficit levels would vary from country to country, the overall indebtedness ceiling would remain constant in the Eurozone.

Clearly, there are many problems that would impact the feasibility of such a plan. Given a region as varied as the EMU, the effect of excessive debt on the area as a whole would greatly depend on which country was holding the debt in question. Thus, it would be essentially impossible to establish a scale against which the 'cost' of deficit could be equally measured for all the member states involved. Additionally, the logistics required for such a system, such as establishing the price of permits and general market oversight, would be extremely difficult to manage simply due to its large size and cross-national scope.

Until an alternative reform sufficiently beneficial to overcome the status quo bias of the SGP is developed, fiscal rule in the EMU will likely continue to be guided by the current system, despite its flaws. There are strong practical advantages to maintaining the status quo, since the SGP can continue to submit to different partial reforms without requiring serious amendments to the founding treaties of the EMU. The most recent revision, which established the Fiscal Compact in January 2013, can be considered as the third major reform of the SGP since its launch in 1999.

#### **4.6 2011 Reforms of the Stability Growth Pact**

Initially, fiscal balances in the EMU seemed to improve after the 2005 reforms of the Stability and Growth Pact. Faced with a general economic upswing, the average deficit for euro countries declined to 1% of GDP until 2007 (Schuknecht et. al, 2011). Similar to the convergence period immediately preceding the formation of the Eurozone, the surge of growth was primarily caused by an unprecedented expansion in real estate markets. Nonetheless, contrary to expectations, there was a notable lack of significant structural reform and countercyclical consolidation during this period, and a number of countries even adopted expansionary expenditure policies. Furthermore, the average public debt in the region remained mostly unchanged, at 66% of GDP in 2007 (Schuknecht et. al, p. 11).

When the global financial crisis struck in 2008, it had a significant impact on public finances in the Eurozone. By 2010, the region's average deficit had increased to 6% of GDP, while average debt rose to 85% of GDP. This period also highlighted the enforcement problems that many had anticipated of the reformed Stability and Growth Pact and its Excessive Deficit Procedure. In fact, at the beginning of 2012, 23 countries of the EU-27 were facing EDPs (Seng & Biesenbender, 2012). Along with rising debt levels, deteriorating fiscal balance and the liquidity crises that followed in Greece, Ireland and Portugal, it became clear that major long term reforms would be necessary for essentially all

Eurozone countries. As tables 1 and 2 show, since the creation of the Euro, many countries were in violation of the 3% and 60% deficit and debt ceilings.

**Table 1**  
**EMU Government Budget Balances as a Share of National GDP (%)**

Country / Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
EU27	-2.3	-1.7	0.0	-0.7	-1.5	-4.5	-1.7	-1.6	-0.9	-0.9	-4.1	-1.8
Austria	-0.6	0.0	0.4	-0.1	-0.1	-0.3	-2.7	0.1	-0.3	-1.3	-5.9	-1.0
Belgium	1.6	6.8	5.0	4.0	2.4	2.3	2.7	4.0	5.2	4.2	-2.6	3.2
Finland	-1.8	-1.5	-1.5	-3.1	-4.1	-3.6	-2.9	-2.3	-2.7	-3.3	-7.5	-3.1
France	-1.5	1.3	-2.8	-3.7	-4.0	-3.8	-3.3	-1.6	0.3	0.1	-3.0	-2.0
Germany	-	-3.7	-4.5	-4.8	-5.6	-7.5	-5.2	-5.7	-6.4	-9.8	-15.4	-6.9
Greece	2.7	4.7	0.9	-0.4	0.4	1.4	1.6	2.9	0.1	-7.3	-14.3	-0.7
Ireland	-1.7	-0.8	-3.1	-2.9	-3.5	-3.5	-4.3	-3.4	-1.5	-2.7	-5.4	-3.0
Italy	3.4	6.0	6.1	2.1	0.5	-1.1	0.0	1.4	3.7	3.0	-0.9	2.2
Luxembourg	0.4	2.0	-0.2	-2.1	-3.1	-1.7	-0.3	0.5	0.2	0.6	-5.5	-0.8
Netherlands	-2.7	-2.9	-4.3	-2.9	-3.0	-3.4	-5.9	-4.1	-3.1	-3.5	-10.1	-4.2
Portugal	-1.4	-1.0	-0.6	-0.5	-0.2	-0.3	1.0	2.0	1.9	-4.2	-11.1	-1.3
Spain	-0.4	0.8	-0.4	-1.3	-1.8	-2.2	-1.8	-0.7	-0.3	-2.1	-7.2	
<b>Average</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>Average</b>

Source: Barbosa & Alves (2011)

**Table 2**  
**EMU Consolidated Gross Debt as a Share of National GDP**

Country / Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Austria	67.3	66.5	67.3	66.7	65.8	65.2	64.6	62.8	60.7	63.8	69.6
Belgium	113.7	107.9	106.6	103.5	98.5	94.2	92.1	88.1	84.2	89.6	96.2
Finland	45.7	43.8	42.5	41.5	44.5	44.4	41.7	39.7	35.2	34.1	43.8
France	58.9	57.3	56.9	58.8	62.9	64.9	66.4	63.7	63.9	67.7	78.3
Germany	60.9	59.7	58.8	60.4	63.9	65.8	68.0	67.6	64.9	66.3	73.5
Greece	94.0	103.4	103.7	101.7	97.4	98.6	100.0	106.1	105.4	110.7	127.1
Ireland	48.5	37.8	35.5	32.1	30.9	29.6	27.4	24.8	25.0	44.4	65.6
Italy	113.7	109.2	108.8	105.7	104.4	103.9	105.9	106.6	103.6	106.3	116.1
Luxembourg	6.4	6.2	6.3	6.3	6.1	6.3	6.1	6.7	6.7	13.6	14.6
Netherlands	61.1	53.8	50.7	50.5	52.0	52.4	51.8	47.4	45.3	58.2	60.8
Portugal	49.6	48.5	51.2	53.8	55.9	57.6	62.8	63.9	68.3	71.6	83.0
Spain	62.3	59.3	55.5	52.5	48.7	46.2	43.0	39.6	36.1	39.8	53.3
<b>Number of violations</b>	<b>7</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>9</b>

Source: Barbosa & Alves (2011)

#### **4.7 Six Pack**

In response to the growing crisis and in an effort to restore fiscal stability, the EMU proposed a series of fiscal reforms beginning in 2010. On September 29<sup>th</sup> 2010, the European Commission established six legislative reforms aimed at upgrading the Stability and Growth Pact. Collectively known as the “Six Pack”, the new proposals were adopted on December 13, 2011 and introduced new legal requirements for government budgets, while mandating greater macroeconomic surveillance of national fiscal policies (European Commission, 2012). The Six Pack introduces semi-automatic sanctions for non-compliance with the SGP. Under the new rule, all recommendations concerning budgetary discipline by the European Commission are subject to Reverse Qualified Majority Voting. These recommendations are automatically adopted unless a qualified majority votes against it, thus making it more difficult for representatives on ECOFIN to form a veto block against the Commission. Additional semi-automatic sanctions were also added to both the preventive and corrective branches of the SGP, including deposits and non-interest bearing deposits of up to 0.2% of GDP, imposed and collected by the Commission from Eurozone members that fail to meet their MTOs. In the case of non-compliance with the Commission’s initial recommendations for consolidation, the deposit is converted into a fine of up to 1% of GDP. Any interest collected from fines are then distributed among the member states that are not undergoing EDPs, in proportion to their GNP. Overall, the Six Pack represents a significant step in enhancing the credibility of the



Stability and Growth Pact by amending the previous weakness in the Commission's enforcement power and tightening fiscal discipline.

Seng and Biesenbender (2012) especially commend the introduction of reverse qualified majority voting in the Council as a substantial step towards strengthening fiscal surveillance and discipline. Compared to the previous system, in which sanctions required a qualified majority approval in the Council and had thus, never been successfully passed, the new voting rule significantly bolsters the effectiveness of EDPs and the likelihood of success for the Commission. Seng and Biesenbender identify a block of member states, including Germany, Finland, Austria, Luxembourg and the Netherlands, that supports stricter enforcement of the SGP and can prevent future recommendations by the Commission from being blocked.

#### **4.8 The European Fiscal Compact**

At the end of 2011, soon after the Six Pack was adopted, Germany and France began pushing for additional reforms to the Stability and Growth Pact. Eventually, these negotiations led to the establishment of the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (TSCG), which came into force on January 1, 2013 and was ratified by all but 2 members of the then EU-27. The core essence of the treaty lies in Title III, the Fiscal Compact, which outlines the regulations regarding fiscal discipline, as well as

Title IV, Economic Policy Coordination and Governance. As a result, the TSCG is often simply referred to as the European Fiscal Compact.

The Fiscal Compact was presented as an extension of the Stability and Growth Pact and encompasses many of the guidelines introduced in the Six Pack (European Commission, 2012). With stricter fiscal discipline as its primary goal, the Fiscal Compact requires signatories to implement a balanced budget law in their national legislation, which will mandate that government budgets be balanced or in surplus. The treaty also introduced a requirement that countries that do not meet their MTOs will need to improve their budget balance by 0.5% of GDP. Furthermore, it implemented a new ceiling on structural deficit of 0.5% for countries with public debt over 60% of GDP and 1% for countries below the 60% mark, in addition to the existing 3% limit on total budget deficit. Member states who breach the debt brake rule will also be required to annually reduce their debt-to-GDP ratio by  $1/20^{\text{th}}$  of the difference between their current debt ratio and the required 60% target. Lastly, only countries that have ratified the Fiscal Compact will be eligible for bailout funding from the European Stability Mechanism (ESM), the permanent European rescue fund established in September 2012.

#### **4.9 Evaluating the Fiscal Compact**

Despite the attempts to bolster the Stability and Growth Pact, many suggest that the Fiscal Compact does not actually offer much substantial revision beyond provisions already established by the Six Pack and current SGP. Barnes et.

al (2012) argue that, from an economic point of view, this new fiscal framework offers essentially the same set of budgetary rules as the 2005 Stability and Growth Pact. For example, the deficit and debt ceilings remain 3% and 60% of GDP, respectively, while MTOs continue to be set by individual member states. Similarly, the required budgetary position was revised from “close to balanced or in surplus”, as outlined by the 2005 SGP, to “balanced or in surplus” (TSCG, 2013). One notable SGP clause that was reproduced in the Fiscal Compact is the allowance for temporary deviation from a country’s MTO and balanced budget rule in the case of exceptional circumstances. Given the context of the sovereign debt crisis, nearly all signatories could arguably invoke this clause, effectively delaying having to implement these new policies. As a result, many have expressed skepticism over the credibility of the sanctions designed in the new treaty and whether member states face any new incentives to abide by them. For example, Spain announced that it would miss its deficit target almost immediately after ratifying the Fiscal Compact (Gostynska, 2012).

Furthermore, the Fiscal Compact is a treaty encompassing the European Union as a whole, including non-Euro member states. As a result, the negotiations process included many EU members outside the currency area, whose primary goals included keeping the fiscal compact “as compatible with EU law as possible” (Gostynska, p.36), rather than keeping its compatibility with OCA theories. In fact, non-Eurozone members were particularly concerned that the new regulations for strengthened fiscal cooperation would mainly address euro-area

countries, and place member states outside the currency union in an unfavorable position. In this view, the Fiscal Compact could potentially lead to a “two-speed, avant-garde Europe” (Gostynska, p. 35).

Some have criticized the Fiscal compact for causing further fragmentation among member states, as divergences among member states were evident from the start of the treaty negotiations. The final texts of the Six Pack and the Fiscal Compact were both the products of long and tedious negotiation processes with strongly opposing sides, suggesting that the regulatory outcomes may not be as effective as intended. As Gostynska reasons, “the fact that the provisions of the fiscal compact had been modified at least six times before it was finally signed only proves its controversial content.” (p. 35). Ferré (2012) echoes this concern, noting that the lack of general consensus in establishing the new fiscal rules may undermine the confidence in these new treaties and their credibility in the long run. Nonetheless, Schuknecht et. al (2011) are hopeful that the recent crisis, which forced certain member states to provide support for others at considerable political costs, will provide the necessary incentives to bolster overall compliance and enforcement of the new pact, through both legal regulation as well as increased peer pressure among national governments. For instance, countries that have ratified the treaty will be permitted to sue their fellow member states before the European Court of Justice if they fail to legally incorporate the debt brake, or balanced budget rule, into their national constitution.

## **CHAPTER 5**

### **THE PATH FORWARD FOR FISCAL POLICY IN THE EMU**

The current separation of centralized monetary policy and national fiscal budgeting creates a key divide that needs to be reconciled if the EMU hopes to develop a set of stabilizing, coordinated policies. As the sovereign debt crisis brings the EMU to a cross road, some (Auerback, 2010; Kawalec & Pytlarczyk, 2013) have proposed a complete or partial exit from the euro. One potential arrangement would be an exit of weaker members, such as the PIIGS group, which, as many argue, failed to meet the initial conditions of membership and should not have joined the EMU in the first place. Alternatively, others have proposed the exit of stronger nations, such as Germany, to allow for currency depreciation. More extreme Euro-sceptics even suggest that total dismantlement of the currency union, followed by a full return to national monetary autonomy, is needed to restore long run stability in Europe.

Auerback (2010) suggests that the most viable solution for stability and sustainable growth in the long run may, in fact, be a full exit from the euro altogether. He argues that the often understated, yet fundamental, underlying goal of the EMU project was to address the “so-called German problem” of geopolitical power imbalances rather than the creation of a true optimal currency

area. Furthermore, the initial benefits gained by peripheral member states from joining with stronger economies have long diminished. No longer able to maintain the illusion of high growth and convergence through suddenly low interest rates, countries such as Greece, Portugal and Spain faced significant premiums on their borrowing compared to core member states during the height of the crisis. Despite the longstanding optimism that a currency union could effectively operate without a fiscal union, Auerback contends that the trials of the recent recession should dispel any lingering optimism, as it has become clear that it is impossible to implement central-level countercyclical policies as a result of this institutional contradiction. A supranational fiscal body is neither feasible nor desirable for member states, since the economic and political fragmentation among countries would prevent a fiscal union from ever being a realistic possibility. Thus, euro-sceptics reason that the answer to the choice between a 'United States of Europe' and a complete restoration of national currencies is both evident and inevitable.

Given that member states have been deeply embedded in the EMU for over a decade, however, the high costs of severing both the economic and political ties among Eurozone countries make a total or even partial exit from the EMU impossible at this point. The consequences of such a drastic measure include insolvency, currency and exchange rate instability and political ramifications that would likely cause the disintegration of the wider European Union altogether. Greece, which has been acknowledged as the likely candidate for exit from the Eurozone, exemplifies the costs of leaving the euro, and consequently, the

realistic improbability of European disintegration. The cost to Greece of exiting the euro is estimated to be a 25% decline in GDP and a cumulative decline in effective employment of 40% (Gomulka, 2012). Other estimates suggest that the initial cost of disintegrating the euro would be a 40-50% loss of GDP for the PIIGS countries, and 20-25% for core members, such as Germany (Deo et. al, 2011).

Following the initial temporary convergence produced by the Maastricht entry criteria, the lack of fiscal integration in the Eurozone and generally weak fiscal discipline ultimately became a key contributing factor to the sovereign debt crisis, as the fiscal cushion anticipated by supporters of the SGP did not materialize. The absence of a centralized fiscal directive allowed asymmetries to persist among member states; however, recent analyses by Dapontas (2013) suggest that a selective disintegration of the Eurozone cannot resolve this problem either. Dapontas investigates the potential benefits of dividing the EMU member states into two new currency areas using the OCA criteria: A “hard Euro” comprising 10 strong core countries and a “soft Euro” for the 7 southern and Baltic members. In addition, he also assesses the possibility of further dividing the Eurozone into several smaller regional currency unions. In all these cases, results show that the breakdown of the current EMU does not resolve the fundamental asymmetry problem. Furthermore, any drastic structural changes to the EMU would incur extremely high costs involved with firstly, the dissolution of the

original EMU, followed by negotiating and re-establishing the new currency unions.

In contrast, euro-optimists have expressed interest in deepening economic integration and weathering the crisis as a more cohesive union. In particular, the absence of a region-wide automatic transfer system that can be triggered by asymmetric shocks leaves the Euro unable to internalize debt imbalances, which have been steadily rising. A centralized budget would create a mutual insurance and solidarity among member states and could accelerate the process of economic convergence. This was prohibited by the Treaty on the Functioning of the European Union (TFEU) in order to discourage moral hazard behavior; however, the crisis and the ensuing rescue mechanisms revealed that, despite member states' initial reluctance to share debt burdens, unexpected events can actually force their hands and, to a certain extent, compel them to adopt mutual solidarity.

The responses of member states and EMU executives to the debt crisis reflect a movement toward further fiscal coordination, rather than disintegration. In his famous address in July 2012, ECB President Mario Draghi pledged that the European Central Bank was committed to take any measures necessary to preserve the euro. He also quelled the circulating speculations of a Eurozone breakup, noting that “when people talk about the fragility of the euro and the increasing fragility of the euro and perhaps the crisis of the euro... [they] underestimate the amount of political capital that is being invested in the euro.”



In late 2012, the European Stability Mechanism (ESM) was established to replace the previously temporary reliefs, the European Financial Stability Facility (EFSF) and the European Financial Stabilization Mechanism (EFSM). Serving as the permanent safeguard against extreme financial difficulty for Eurozone member states, the ESM has a potential lending capacity of €500 billion. Countries seeking bailouts from the ESM must, however, implement conditions including harsh austerity measures and reforms that are mandated by the organization. Such conditions overlook the sociopolitical environment of times of crisis and may actually worsen the situation by undermining social cohesion and national democratic control.

Consequently, though the EMU appears to be making a step in the positive direction, De Grauwe (2011) argues that the newly established ESM will be unable to lead the Eurozone into a full recovery. In particular, the fund's high interest on lending makes it difficult for already indebted member states to reduce their deficits and slow their debt accumulation. For example, the ESM offers a 6% interest to the Irish bailout program, compared to a 3% rate for Germany and Austria. The ESM signals a greater risk of default for high-interest countries, thereby perpetuating the existing distrust in these markets. The high risk premiums imposed by the ESM also signal distrust in itself as a system to lead the EMU to recovery. In addition, all member states that ratify the Treaty Establishing the European Stability Mechanism must also sign collective action clauses when issuing new government bonds. Thus, bond holders can be forced to shoulder a

portion of the costs when national governments request for aid from the ESM. These collective action clauses made the bond markets much more susceptible to fearful sentiments and actually worsened the impact of speculation in the currency union. Furthermore, the austerity measures required of applicants to the ESM also reinforce the bad-equilibrium trap of less competitive countries, as they are already unable to employ automatic stabilizers during difficult times. These stringent reforms perpetuate member states' inability to pursuing anti-cyclical policies, which can be crucial tools for maintaining business cycle stability.

Schuknecht et. al (2011) propose that a 'quantum leap' is required to achieve the necessary supervision, regulation and coordination to ensure long term fiscal sustainability in the EMU. Unfortunately, however, the recent 2010-11 reforms in the Eurozone's fiscal governance have not made the necessary 'quantum leap', due to continued reluctance of member states to transfer sovereign fiscal control to the EMU level. Gostynska (2012) notes that, in comparison with the initial negotiations, the final text of the Fiscal Compact gives considerable power to national parliaments by encouraging inter-parliamentary debate on budgetary issues and facilitating a process in which individual national governments will have more final say compared to an EMU-level authority. The Fiscal Compact notably promotes a form of intergovernmental cooperation that places member states, rather than central-level institutions, in the driving seat. This "open method of coordination" aims to ensure that governments can

maintain sovereign control over their individual budgetary processes (o Broin, 2012, p. 6).

Schuknecht et. al critique the reforms for failing to meet the longstanding need for “an independent fiscal body at the euro area level for the purposes of monitoring national fiscal policies” (p.15). They suggest that in exchange for membership into the Eurozone, countries should agree to give up sovereignty over macro-fiscal objectives, including general government deficit and debt. This will help generate the credible incentives necessary for sound fiscal policy and could be the foundation of an eventual “European Ministry of Finance” (p. 18).

De Grauwe (2011) argues that the current governance structure of the Eurozone does not sufficiently account for the systemic interconnectedness of member states’ economic activities, thus impeding the EMU from making a full, strategic recovery. Fundamentally, Eurozone governments must address two key weaknesses: coordination failure among members, and externality spillovers that may lead to contagion. These issues can be resolved via collective action and internalization at the central and national levels. At the EMU level, liquidity crises could be mitigated, and even avoided, if the ECB were permitted to purchase national debt and re-channel liquidity, as is the case with national central banks. Ultimately, a stronger political union is required to sustain the EMU in the long run.

When negotiations for the Fiscal Compact began, the European Commission conceded that the fiscal imbalances and persistent divergence

afflicting the Eurozone were primarily caused by the EU's reliance on voluntary fiscal policy coordination (Gomulka, 2012). This acknowledgement recognized the ineffectiveness of the Open Method of Coordination (OMC), a framework for achieving cooperation between member states through "soft law" measures rather than directives and regulations. As one of the earliest forms of an OMC, the Stability and Growth Pact is a direct embodiment of this ineffectiveness.

The fiscal framework created by the SGP, both at its conception and post-reform, was unable to generate the expected coordination and cohesion to sustain stability in the Eurozone. In order to be successful, a currency union must compel its member states to relinquish a significant portion of their fiscal sovereignty to central-level institutions. As the debt crisis has demonstrated, it is unsustainable for member states to expect to make economic gains from joining a monetary union without paying the necessary costs of fiscal dependence. Fiscal integration is an indispensable requirement for an efficient currency area. Initially proposed in 1969, Kenan warned that a currency union with differing domains for monetary and fiscal policies was simply a recipe for disaster, and strongly advocated for central-level fiscal regulation. Over four decades later, De Grauwe (2010) echoes this opinion, arguing that a monetary union without a fiscal union is analogous to having no fire brigade.

Unfortunately, developments in the SGP have continued to reflect a movement away from the community method and towards and increasingly intergovernmental approach. The community method is based on the premise of

emphasizing integration among member states and reflects a process in which EU-level institutions, such as the European Commission, the Council and the European Parliament, play a main role in making policy decisions. In contrast, the intergovernmental method, which encompasses the OMC, places decision making power primarily in the hands of member states, while the functions of supranational institutions remain relatively restricted.

Up until the crisis struck, fiscal policy in the Eurozone was primarily shaped by an intergovernmental approach, which is strongly reflected in the 2005 SGP reforms. At the time, the intergovernmental deals were introduced under the premise of allowing member states greater flexibility to achieve economic integration on their own terms. As part of the new regulation, European unification was declared to be the ultimate overarching goal for euro area countries. Supposedly, member states were granted greater control over their fiscal policies to allow them to pursue this goal in a way that was most suited to their national circumstances. In practice, however, this simply gave countries the freedom to carry out fiscal policies that most benefited themselves without interference from the Commission and European Parliament, which ultimately fed into the growing regional divergence. For example, the introduction of relevant factors and individualized MTOs essentially removed any possibility for credible enforcement of EDPs by the Commission and gave member states a loophole to avoid being held accountable for abiding by the SGP.

The Fiscal Compact and Six Pack are intended to operate in parallel with one another, with certain overlaps in their provisions. The introduction of semi-automatic sanctioning in the Six Pack and the additional discretion granted to the Commission represented a significant advancement toward a community method of governance; however, Chang (2013) argues that this progress was almost immediately qualified by the TSCG, which reintroduced intergovernmental ideals into EMU governance. Specifically, Title IV, Economic Policy Coordination and Convergence, includes an article stating that the OMC will be the preferred method of governance under the new fiscal regulations. This is unsurprising, since many (Gostynska, 2012; o Broin, 2012) have argued that the origins of the Fiscal Compact can be attributed to pressure from core economies to develop a form of political insurance for their large contributions to the various European rescue funds. Though its foremost purpose was declared to be fiscal surveillance, the negotiation process of the TSCG was largely guided by the views of German politicians. Furthermore, critics of the treaty have accused it of being a mere distraction from actually resolving the debt crisis because it is not designed to promote real growth in the EMU and in fact, will likely be suspended in the short term due to its 'exceptional circumstances' clause (o Broin). Therefore, while the 2011 reforms to fiscal governance make a positive step in the necessary direction, the progress is slightly tempered by the individualism advocated by the Fiscal Compact.

## **CHAPTER 6**

### **MONETARY POLICY IN THE EMU: THE EUROPEAN CENTRAL BANK**

The primary objective of the European Central Bank (ECB) is to ensure price stability in the EMU. Since the financial crisis, there has been an intensified debate on the ECB's role in supporting fiscal consolidation in addition to this primary objective. This has raised questions about the potential for conflict between these two roles. It was largely recognized that some degree of rescue intervention by the ECB would be necessary; however, some fear that this intervention may affect the ECB's capacity to fully meet its main objective over the medium and long term. In addition to price stability, the Statute of the European System of Central Banks (ESCB) and of the European Central Bank also mandates that the ECB has a responsibility for overall financial stability in the EMU. Nonetheless, De Grauwe (2010) argues that the traditional focus on price stability is, in fact, partly responsible for the large-scale contagion spread across the entire union. He suggests that the ECB's responsibilities for overseeing economic and financial stability have been largely neglected as a result of its focus on inflation. Over the past decade, the ECB has been quite successful at maintaining a low level of inflation in the EMU, with an average of 2.2%; however, De Grauwe suggests that the ECB should also have a role in supervising

state banks and government budgets, which are currently exclusively a national responsibility. Similarly, Collignon (2012) argues that price stability is a necessary, but not sufficient condition for a sustainable monetary union. Long run prices are a monetary phenomenon; however, in the short- and medium –term, prices are influenced by liquidity preferences and portfolio strategies, which can distort the theoretically direct relationship between money and prices. As a result, maintaining price stability alone through interest rates cannot be sufficient for ensuring the stability of the Eurozone.

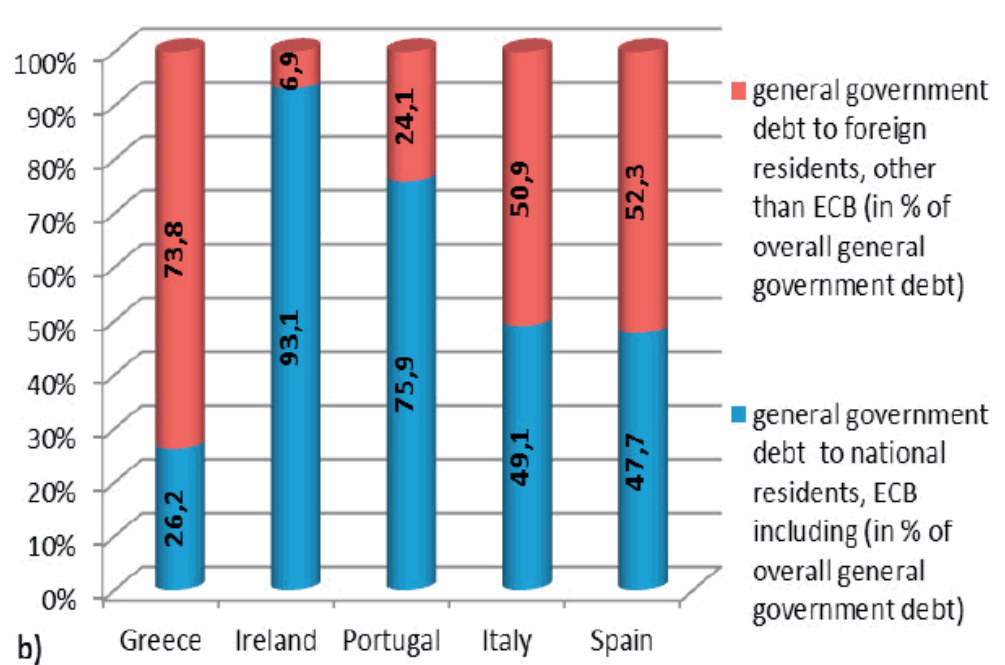
Under the no bailout clause of the Maastricht Treaty, the ECB has traditionally been prohibited from financing the deficits of Eurozone member states. In order to maintain a credible control over price levels, the ECB required an institutional framework in which national fiscal indiscipline would not result in inflationary pressures for the EMU. For years, the no bailout clause was viewed as the foundation of the ECB's credibility in its role of maintaining price stability. However, this setup forces the ECB to forego being a lender of last resort to member states.

The crisis has revealed that the lack of a lender of last resort is a critical structural weakness of the EMU. Monetarists believe that, without intervention by a central lender, small local liquidity shocks can rapidly spiral into large scale crises. Particularly in highly integrated regions such as the Eurozone, the effects of contagion through banking sectors are intensified, increasing the spillover of debt crises among member states. Though the sovereign debt crisis had the largest



impact in the PIIGS group, the large degree of financial integration in the EMU resulted in a large share of this public debt by other Euro area countries, thereby spreading the risk of instability. Figure 2 shows that in 2007, immediately prior to the Eurozone crisis, substantial quantities of the total government debt of the PIIGS group were held by other member states. Consequently, recovery mechanisms will require not only national consolidation, but also, action at the supranational level by the ECB.

**Figure 2**  
**Public Debt Holdings of PIIGS Countries (2007)**



Source: Roman & Bilan (2012)

De Grauwe (2011) argues that the current structure of the Eurozone does not sufficiently account for the systemic nature of member states' economic activities and thus, impedes the Eurozone from making a full, strategic recovery. Fundamentally, member states must address the large potential of externality

spillovers that can lead to contagion. At the EMU level, liquidity crises could be mitigated, and even avoided, if the ECB were permitted to purchase national debt and re-channel liquidity.

Due to the constitutional limit on the scope of the ECB's interventions, the ECB has often been viewed as acting too slow in its steps taken to address the crisis. For example, compared to the U.S. Federal Reserve, the ECB appeared much more hesitant in its response to the crisis. The Fed began cutting interest rates in September 2007 and initiated a large scale government bond purchasing program in March 2009. In contrast, the ECB did not decrease its rates until October 2008 and waited until May 2010 to launch its first bond repurchasing program to assist indebted member states (Hodson, 2013).

## **6.1 The ECB's Response to the Crisis**

The Securities Markets Programme (SMP) was launched on May 10<sup>th</sup>, 2010, as an attempt to “restore an appropriate monetary policy transmission mechanism” in the Eurozone, which was being hampered by tensions in the markets. The SMP was the first instrument employed by the ECB to directly purchase government securities on the secondary markets. By June 2012, the ECB had purchased over €212 billion of debt through the SMP. Though composition data was not officially released, it is widely speculated that this total is mostly comprised of debt from the PIIGS group. While these temporary purchases prevented the large scale turmoil that would have followed the bank defaults that

seemed increasingly imminent in 2010-2011, the SMP was limited by the constraints in scope and time that were outlined from the onset.

By late 2011, the ECB had mostly ceased purchasing government bonds through the SMP. The program was ultimately criticized for failing to create any long run improvements in distressed member states. In early 2012, the buildup of uncertainty brought about a sudden increase in Spanish and Italian bond spreads (Stark, 2012). Any lasting impact created by the SMP appeared to be negligible after the program was halted and once again, the financial markets began to spiral with panic. Amidst the growing rumors that peripheral members could possibly exit from the Eurozone, new speculations that the ECB would resume purchasing government bonds arose.

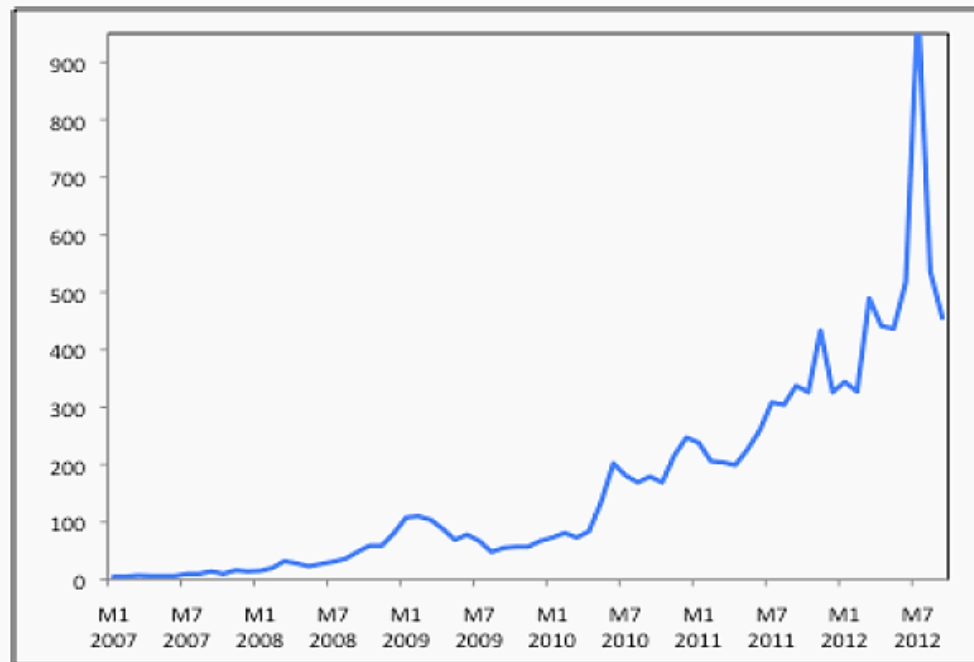
The Outright Monetary Transactions (OMT) Programme was introduced by the ECB on September 6, 2012. This program marks an unprecedented transformation of the ECB into a lender of last resort for EMU member states. Under the OMT program, the ECB pledged to purchase unlimited government bonds of one- to three-year maturity on secondary markets. In order to be eligible, member states must have applied for assistance from the ESM. The ECB did not declare a definite end to the program, but expected that it would conclude when either the goals are achieved or countries no longer comply with the conditions. Similar to the SMP, all transactions made through the OMT program will be fully sterilized so that they do not affect the stance of monetary policy. However, there are several key differences between the two programs.

Wyplosz (2012) argues that the primary difference between the SMP and the OMT program – one which led to the failure of the former but secures the success of the latter – is the varied treatment of the debt purchased under each program. Whereas the SMP acted on debt flows, the OMT program deals with debt stock. In solely addressing debt flows, the SMP failed to change the market perceptions on the ability of governments to honor their debts. In contrast to the unlimited purchases guarantee of the OMT program, the SMP had been explicitly declared to be limited in size and temporary from the onset. Consequently, its impact in financial markets was also temporary, since investors could not be completely sure that the ECB would actually meet the financial needs of distressed countries. In addition, the ECB claimed senior creditor status under the SMP, whereas it will be treated *pari passu* under the OMT program, so that the ECB is not granted preferential treatment over other investors in the event of default. The guidelines of the SMP were also much more ambiguous compared to those of the OMT program. Bond holdings acquired through OMTs will be made much more transparent, and data on the breakdown by country and average bond duration will be officially published. Lastly, the SMP did not require member states to be recipients of support from the ESM.

The differences in the impact of the SMP compared to the OMT program are also notable. SMP transactions were initially followed by a brief improvement in spreads, but ultimately failed to maintain this progress and were later followed by a rebounding divergence in spreads when the intervention stopped. Figure 3a

shows the ten-year spreads for Spanish bonds, one of the suspected recipients of the SMP. In the period from 2010 to 2012, the impact of SMP purchases are reflected by the short-term oscillations in spreads. In early 2012, however, the ECB stopped making additional bond purchases through the SMP, causing an upswing of market fears and a surge in bond spreads that were fuelled by fears of possible exits from the euro. However, the announcement of the OMT program had an immediate stabilizing effect on such market sentiments, marked by the sharp drop in spreads in late 2012. More importantly, this stabilizing trend has continued to hold since the initial drop (figure 3b), despite the fact that the OMT has not yet been activated by any EMU member states.

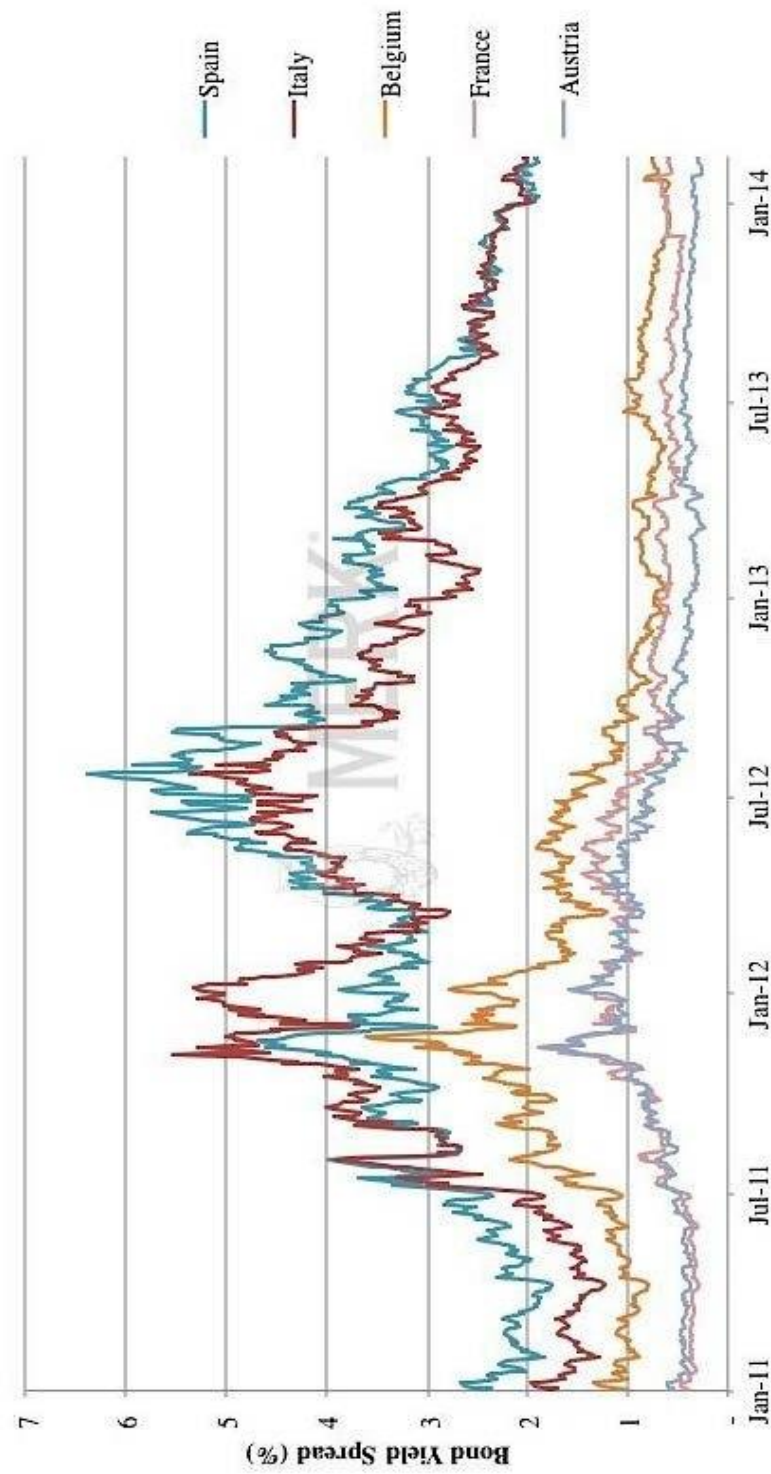
**Figure 3a**  
**Ten-year Spreads on Spanish Bonds (basis points)**



Source: Wyplosz (2012)

Figure 3b

### Eurozone Sovereign 10-Year Bond Yield Spreads over German Benchmark



Source: Merk Investments, Bloomberg

© Merk Investments, LLC

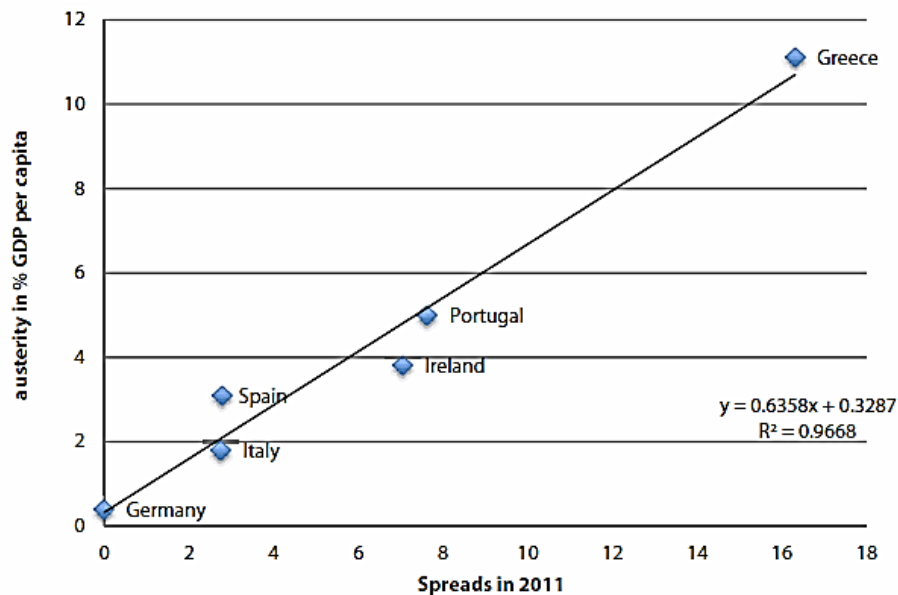
Source: FX Street (2014)

In promising to buy unlimited amounts of sovereign bonds during the crisis, the ECB effectively dispersed fears of a looming collapse in the euro area. The establishment of the OMT program also gave considerable credibility to the announcement that Mario Draghi, President of the ECB, made on July 26, 2012, which promised that “the ECB is ready to do whatever it takes to preserve the euro” (ECB, 2012). Analysis by De Grauwe and Ji (2013) reveals that the impact of the OMT program on the financial markets was extraordinary.

Since the onset of the crisis, macroeconomic policies in the Eurozone have been shown to be strongly influenced by financial markets. Figure 4 shows the striking correlation between average interest rate spreads of several Eurozone members and the intensity of the austerity measures undertaken in 2011. The spreads are defined as the difference between each country’s ten-year government bond rate and that of Germany. Austerity levels are based on research published by the Financial Times, which calculated the total value of countries’ 2011 austerity packages, including the tax increases and spending cuts, as a percentage of per capita GDP.



**Figure 4**  
**Austerity Measures and Spreads in 2011**



Source: De Grauwe & Ji (2013)

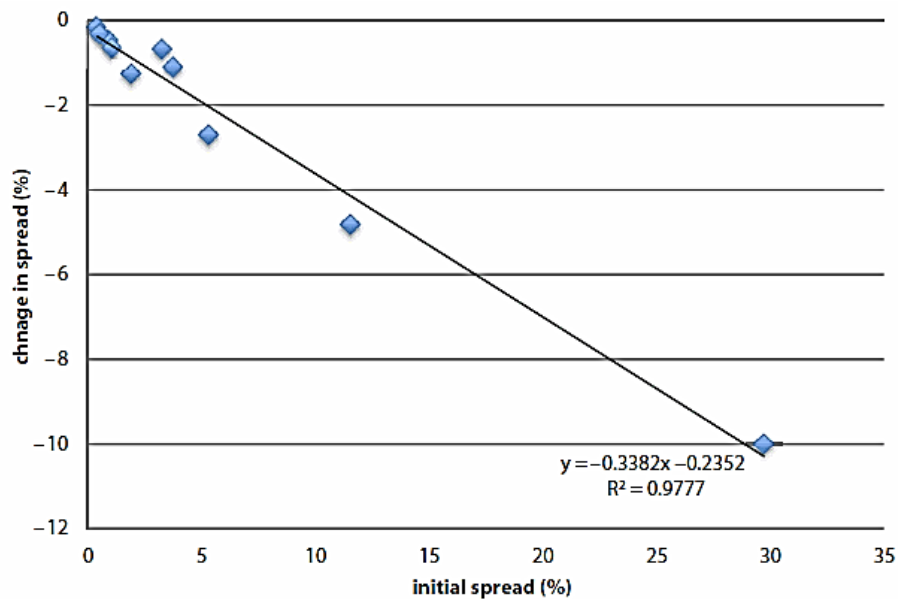
As the chart reveals, there is a highly positive relationship between the two variables, suggesting that financial markets played a tremendous role in influencing countries' fiscal stance. There are two possible interpretations of this result. The first theorizes that the markets simply reflect the true nature of “deteriorating fundamentals”, such as public debt and competitiveness. In this view, the only way to rebalance the disparities would be to fundamentally reduce the debt and deficit levels through painful austerity measures. An alternative theory suggests that the collective panic and market speculation fears can dramatically influence spreads so that they inaccurately reflect the fundamentals, which may not actually be deteriorating as badly as it appears. The

key implication of this argument is that the ECB has a particular role in calming the markets and preventing dangerous speculations of liquidity crises.

An investigation of the change in spreads following the public announcement of the OMT program suggests that the latter hypothesis is correct. Figure 5 compares the decline in spreads in the period from mid-2012 to early 2013 against the initial spread, measured as the difference between each country's bond rate and that of Germany, immediately preceding the announcement. Once again, the correlation is extremely strong and almost all the change is explained by the initial spread level. For example, Greece, which had the largest initial spread, also experienced the largest decline. This supports the argument that the divergences in the financial markets are heavily driven by fearful market sentiments, which drive spreads away from the fundamentals. As a result, De Grauwe and Ji argue that the austerity measures that result from financial market panics may, in fact, be too austere.

Additionally, though the ECB ultimately took action to address the market fears, the excessive and ineffective austerity measures may have been largely avoided if action had been taken sooner. Frangakis (2011) shares this opinion, arguing that the initial slow reaction at the onset of the crisis unnecessarily worsened the situation later on. The slow initial reaction may also have negative social and political consequences. It has now become clear that the harsh austerity measures, which unnecessarily caused the suffering of millions of people, were dictated by an artificially increased financial divergence among member states.

**Figure 5**  
**Change in Spread and Initial Spread from 2012 Q2 to 2013 Q1**



Source: De Grauwe & Ji (2013)

Had the ECB taken action sooner, it is likely that much of these austerity measures, along with their sociopolitical consequences, could have been avoided.

Though the OMT program has been extremely well received by financial markets, it has simultaneously been severely criticized by the German Central Bank, the Bundesbank, for endangering the euro. The decision of the ECB's Governing Council to initiate the bond purchasing program was unanimously agreed upon, with the exception of one vote, unofficially recognized as belonging to Bundesbank President Jens Weidmann. The Bundesbank has openly criticized the ECB's decision to act as a de facto lender of last resort for sovereign debt markets. German officials argue that, because the ECB cannot realistically

prevent governments from making poor financial choices, it should not directly recapitalize failing national banks (Jones, 2013).

Critics of the ECB's bond purchasing programs are highly pessimistic about the ramifications of too much involvement by the ECB. Fundamentalists have argued that the OMT is an open invitation for moral hazards to develop that will destabilize the European economy in the future. German economist and former ECB executive board member Jürgen Stark (2012) argues that the proactive measures undertaken by ECB have overextended its mandate to the brink. He criticizes the ECB for assuming a role that erodes its independence and prevents it from "carrying out its core mandate of safeguarding price stability." Though there do not appear to be significant immediate consequences of the ECB's deviation from its primary objective, as many had feared, Stark argues that the launch of the OMT opens the door to high inflation – "not today, not tomorrow, but in the longer term".

However, this concept of the 'longer term' is highly ambiguous. In fact, the dreaded surge in inflation may not even materialize, since to date, no one has been able to precisely predict when this will occur. What was certainly occurring, however, was a growing need for the ECB to intervene to quell market fears that threatened to spiral out of control, with dire economic and social consequences. Thus, under such circumstances, the ECB's primary responsibility should be to address the pressing current needs of the EMU, rather than hesitate due to fear of uncertain consequences.

Furthermore, Stark condemns the ECB's decision to resume bond purchases in the face of soaring Italian and Spanish spreads in early 2012. He argues that the changes in the Italian and Spanish financial markets are "hardly" relevant to monetary policy, but rather, that the fluctuations are largely "home-grown problems" (p.82). By lowering member states' refinancing costs through the OMT program, Stark charges the ECB of unjustifiably interfering in the bond markets, as well as bowing to political leaders, thereby starting down a path that would be extremely difficult to reverse. In the long run, this could have negative consequences on the credibility and confidence in the euro currency, triggered by a loss of faith in the central bank. In this view, the OMTs reflect a transgression of the ECB's fundamental mandate of safeguarding price stability by stepping into the political domain.

Stark claims that the fiscal and monetary policy should not be blurred and that the ECB's actions have distorted the boundaries between the two domains; however, though a separation of fiscal and monetary authorities is important, it is also important to recognize that monetary and fiscal policies and a currency union cannot be fully independently carried out, since their consequences can have significant impacts in both domains. Particularly in light of the OCA criteria, which span both monetary and fiscal spheres, action by the ECB and individual sovereignties should complement one another in achieving the ultimate goal of becoming an effective currency area.

Another prevalent criticism of the ECB's bond purchasing plan is that the conditionalities tied to the OMT program are not actually credible. As Hodson (2013) argues, the countries that most require support from the ECB will likely be those that have the hardest time meeting the fiscal reform and consolidation requirements. Herein the OMT program runs into a contradiction: the ECB has declared that the main purpose of the OMTs is to safeguard "monetary policy transmission and the singleness of monetary policy". This is enforced by the aforementioned condition that the program will be withdrawn from countries who fail to meet the associated requirements; however, such a move would worsen the financial situation of the countries in question. Thus, for OMTs to be credible, the ECB must be committed to potentially impairing the very transmission mechanism that the OMT program was designed to safeguard. Currently, the OMT program has not yet been adopted by any member states, so it is uncertain the degree to which these conditionalities will be enforced by the ECB in practice.

Lastly, opponents of the new program argue that OMTs represent a politicization of central banking. However, since the inception of the Eurozone, economic policies and fiscal regulations have been so largely influenced by political willpower, and in particular, German political willpower, that the Bundesbank's disparagement of the ECB's politicization is highly hypocritical and can be directed toward several aspects of governance in the Eurozone.

In contrast, Darvas (2012) argues that most of the prominent criticisms of the OMT program are unfounded and fail to acknowledge the condition that

countries seeking entry into the OMT program must adopt the provisions of the ESM. Furthermore, the level of interference by the ECB is determined by the ECB's Governing Council, which comprises the ECB Executive Board as well as governors of the Eurozone's national Central Banks. Consequently, some level of decision making power always remains aligned with member states' interests.

Despite the initial optimism surrounding the OMT, the program is not a "magic wand" (Darvas, 2012) with which the ECB can solve the Eurozone crisis. For instance, the OMT program still cannot fully eliminate the risk of exit for any particular member state. Sustainable economic growth also ultimately depends on action by national governments, and the current fiscal outlook in the peripheral countries is not particularly optimistic. Additionally, the competitiveness gaps in the Eurozone cannot be resolved by the OMT program and will require southern economies to reduce their deficits against the northern economic surpluses. One method for the ECB to facilitate this process would be to allow the euro to depreciate and possibly even consider quantitative easing, since the interest rate has already been cut from a high of 4.25% in July 2008 to 0.25% in November 2013 (ECB, n.d.).

In addition, the practical robustness of the OMT program remains to be seen, since the announcement of OMTs alone has appeared to be adequate in stabilizing markets thus far, without member states actually enrolling in the program. The ECB has repeatedly emphasized that the OMT program serves as a safeguard of monetary policy transmission mechanisms, which were distorted by

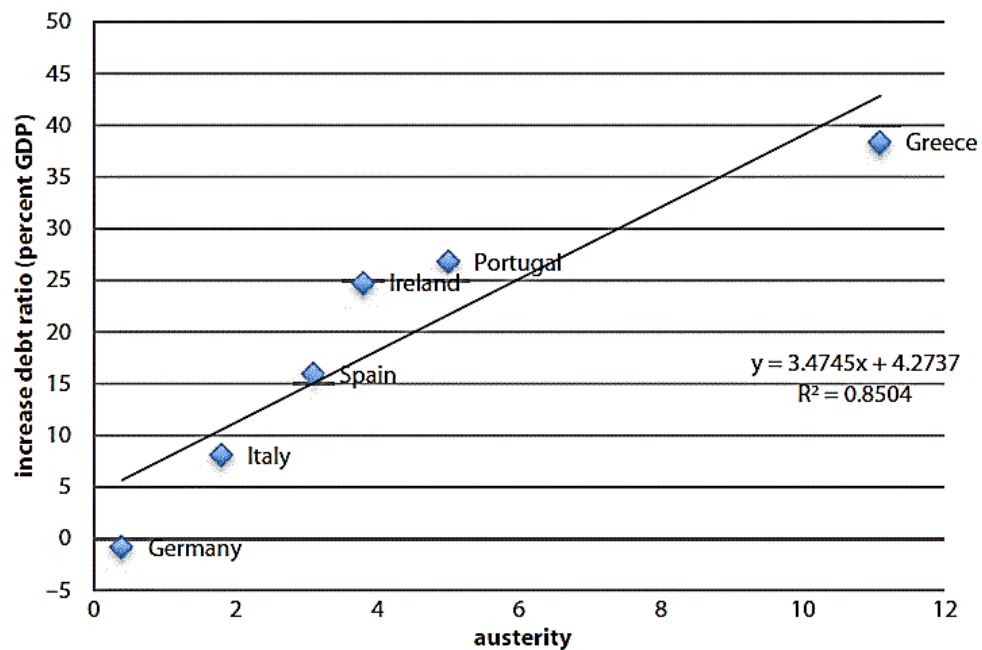
the crisis. Because the ECB is refraining from directly purchasing securities from national governments, ECB officials have reasoned that they are not explicitly in violation of the no bailout clause. Nonetheless, this program has stretched the ECB to the brink of its mandate and requires an “aggressive interpretation” of its Statute (Sester, 2012). Critics of OMTs have noted that a program that requires such considerable reassurance of its legal credibility can only be suspicious at best, and thus rests on a weak foundation.

Despite these qualifications, however, the OMT has had an overall highly positive effect in steering the EMU away from further crisis escalation and fears of disintegration. Bond yields have dramatically fallen without any real intervention by the ECB, suggesting that the mere commitment to action may have a large stabilizing potential. Now that the financial markets have been calmed, it is imperative that national governments take advantage of this period of stability to make the necessary fiscal adjustments to complement the ECB’s monetary policy. Recovery from the crisis will require the full commitment of both the central bank as well as all the individual member states. The ECB has finally taken significant first steps; fiscal policy must follow as well.

Data from the height of the crisis show that countries that imposed the strongest austerity measures also experienced the greatest decline in GDP growth. Many suggest that this is the necessary cost of rebalancing budgets; however, as figure 6 shows, this often accepted truth may not actually hold.



**Figure 6**  
**Austerity (2011) and Increase in Debt Ratio (2010-12)**



Source: De Grauwe & Ji (2013)

Comparing the strength of austerity measures to the change in debt ratios, De Grauwe and Ji (2013) conclude that the austerity measures intended to act as medicine for indebted countries actually helped create recessions. These measures undermined the countries' ability to service their debt, and worsened their situation by actually increasing the debt ratios. The authors contend that the current adjustment processes that have been led by the Commission have depended too heavily on imposing austerity and internal devaluation on the peripheral countries without a complementary demand stimulus by stronger core economies. This creates a deflationary bias in which the burden of adjustment is almost exclusively borne by deficit countries.

An alternative solution proposed by De Grauwe and Ji (2013) is to implement a more symmetric macroeconomic policy. Under this framework, creditor member states, which have largely been able to stabilize their debt ratios, should pursue an atypical rule of running small budget deficits that would still allow them to maintain constant debt levels. For example, Germany, which amassed the largest current account surplus of all the Eurozone members, was close to achieving a balanced budget in 2013; however, it could actually run up to a 3% deficit while maintaining its current debt ratio. In order to bring Europe out of the debt crisis, the responsibility of rebalancing must be shared among creditor and debtor countries. This is particularly important given that many creditor nations gained their competitive positions at the expense of keeping peripheral countries weak in comparison. Though austerity measures will certainly be unavoidable, the failings of the PIIGS group are often overemphasized so that it is easy to forget that “for every reckless debtor there must have been a reckless creditor” (De Grauwe and Ji, p. 40).

## **CHAPTER 7**

### **A RETURN TO OPTIMUM CURRENCY AREA THEORIES?**

#### **7.1 Reexamining the Endogeneity Hypothesis**

The beginning of the European experiment was characterized by a notable divide between euro-optimists, who advocated for the self-fulfilling endogeneity hypothesis, and euro-sceptics, who believed that the formation of a currency union prior to meeting most of the OCA criteria would actually create greater divergences among its members. This latter theory eventually became known as the ‘heterogeneity hypothesis’, in contrast to the endogeneity argument (Jager & Hafner, 2013). Particularly after the sovereign debt crisis, there has been an increasing re-examination these two hypotheses, with evidence appearing to strongly support the heterogeneity hypothesis.

In the early 1990s, the hypothesis of endogenous OCA criteria provided vital support for policymakers looking to strengthen European Integration. Pioneered by Frankel and Rose (1998), the argument claimed that despite various misgivings, a monetary union would be more justifiable *ex post* rather than *ex ante*. This potential endogeneity of the OCA criteria was even supported by the European Parliament, fuelling optimism that joining the EMU would help boost competitiveness, when, in reality, the sudden access to cheaper capital aggravated

pre-existing deficits in the peripheral states and reduced their competitiveness compared to the Eurozone core. As a result, peripheral European countries that were looking to benefit from a common currency with stronger economies were lured into participating in the monetary union. Unfortunately, evidence since the launch of the euro shows that the highly anticipated endogeneity effects of currency unions were far more impressive in theory than in practice.

Several recent studies have shown that, compared to the late 1990s, the Eurozone is, for the most part, no closer to satisfying the main OCA criteria over a decade later. Prior to 1999, the southern European countries heavily devalued their currencies to boost their competitiveness. This resulted in double-digit interests – nearly twice those of Germany – high inflation and lending risks, and government vulnerability to excessive spending (Wagué 2012). Consequently, the prospect of joining the monetary union was very appealing, as it would allow weaker economies to benefit from sharing a currency with stronger countries. Indeed, after the introduction of the Euro, the Mediterranean economies experienced a significant drop in interest rates, resulting in cheaper and more plentiful credit, which allowed mortgages and long-term borrowing schemes to become easily accessible. Initially, the endogeneity hypothesis appeared to be a great success, as the southern economies boomed in the 2002-2007 period and converged toward the stronger euro core.

Nonetheless, this growth was highly unsustainable. Built on a surge in domestic demand and consumption rather than increased productivity or export

competitiveness, the sudden boom led to soaring prices and demand for labor. Because of low labor mobility in the Eurozone due to national borders, wage costs also rose. However, rather than lowering interest rates, as would be expected of economies with national currencies, the rising costs in the south did not deter inflation from continuing to climb. Furthermore, because these peripheral European economies are relatively specialized in labor-intensive production, they were more affected by the labor immobility and resultant wage increases compared to member states with more capital-intensive production, such as Germany, France and Austria.

Analyzing data from 1999-2009, Wagué (2012) concludes that, contrary to the predictions of Endogenous OCA theory, joining the EMU harmed the southern member states in two critical ways: Firstly, the boom in domestic consumption that resulted from newly available cheap borrowing led to significantly increased labor costs that generally remained unique to the region. Consequently, this lowered competitiveness in these countries, which had already been relatively weak compared to the Eurozone core. Furthermore, the large volume of suddenly accessible credit caused by joining the monetary union enticed lavish and ultimately unaffordable levels of government spending and borrowing, which eventually translated to debt levels potentially destructive for the EMU as a whole.

A study by Vieira and Vieira (2012) also suggests that the OCA criteria are not self-fulfilling. Their analysis shows that most countries, including those

outside the EMU, became more suitable to join an OCA in the decade following the euro, suggesting that global trends, rather than specific endogenous factors, are responsible for the convergence. This view is also supported by Willett et al.'s evaluation of three main OCA criteria in the Eurozone (2010), which shows that while the EMU has generated some positive endogeneities, these have not led to significant improvements in the region's economic performance.

The first criterion Willett et al. (2010) investigate is trade flow. While intra-euro trade as a percentage of GDP increased from approximately 25% in the mid-1990s to over 40% in 2000, this growth leveled off in the early 2000s. Extending the timeframe to 1994-2004 shows no notable change in intra-euro trade, despite the surge immediately surrounding the creation of the euro. Moreover, the trends for non-euro countries in the EU show a similar pattern, thus implying that the changes in trade cannot be solely attributed to joining the currency union. Willett et al. also call for a distinction between the economic effects of adopting a common currency and the broader effects of joining the EMU. While the former may help reduce transaction costs and exchange rate risks, the latter helps address institutional and macroeconomic environment changes, which arise from adjusting the fiscal and monetary regulation framework of member states.

In addition to trade flows, Willett et al. also look at changes in business cycle synchronicity to determine the endogenous effects of the EMU. However, similar to trends in trade flows, the results are highly ambiguous and not

constrained to countries within the EMU. Their paper uses correlation between output and consumption growth as a proxy for the level of business cycle synchronicity. Comparing the levels from 1980-1990 to those from 1999-2005, the authors show that while correlations among Eurozone countries increased greatly, correlations between these countries and non-Eurozone members of the EU, as well as those among countries of the latter group, also increased. In fact, the magnitude of correlation growth is actually higher for European countries outside the Eurozone. Consequently, the authors conclude that any changes in business cycle synchronicity cannot be adequately explained by economic integration, asymmetry of shocks, or policy changes arising from the newly formed currency union.

Lastly, the authors investigate the endogenous impact of the EMU on structural market reforms, and particularly, the flexibility of labor and product markets. While a currency union could theoretically cause either an increase or decrease in wage flexibility, in practice, there is often a mismatch between the real and perceived costs and benefits of reform, which largely generates opposition. This arises because the costs are highly visible and generally reflected in a specific group of people, in comparison to the more ambiguous prospect of benefits that will eventually diffuse across society. Initially, Euro-optimists predicted a strong push for structural reforms to generate greater market flexibility; however, the overall pace has been decreasing since the launch of the euro, with particularly sparse changes in labor mobility. As a result, the evidence

suggests that any potential endogenous dynamics in the EMU have not sufficiently strengthened the incentives needed to offset the status quo bias and lead to increased market flexibility.

One particular difficulty that arises in conducting before-and-after comparisons of output and consumption growth correlations is the ambiguity of which date should be chosen as the dividing reference point. Though the January 1<sup>st</sup> 1999 may appear to be a logical choice, Willett et al. argue that the growing anticipation leading up to this date would have strongly influenced the economic performance of potential member states, as they strived to meet the convergence criteria set forth by the Maastricht Treaty. The exact influence of the high expectations, however, cannot be accurately assessed. Faced with these ambiguous economic results, the authors turn to a political perspective for possible explanations. They argue that the unfortunate political implications of applying the economic theory can help shed light on the sluggish pace of change. Specifically, they reason that policymakers would like to believe it is possible to have a common currency without flexible markets, because they “all know what needs to be done with structural reforms, what [they] don’t know is how to get reelected after [they] do them.” In light of growing divergence in producer costs and competitiveness gaps among EMU members, as well as mounting concerns about immigration policies that limit cross-border labor mobility, Willett et al. suggest that major recessions may, in fact, be required to create the market reforms necessary for stability and convergence in the long term.



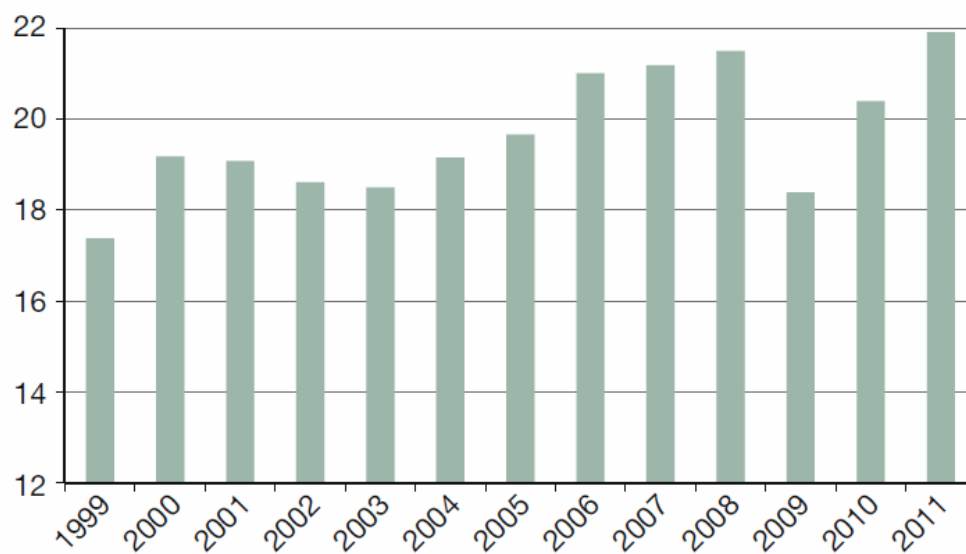
The asymmetric shocks in the EMU that fueled the sovereign debt crisis can be traced back to and explained from an OCA perspective. Jager and Hafner (2013) argue that the validity of the endogeneity hypothesis can be assessed in terms of OCA criteria that fall in two main categories: those that reduce the region's exposure to asymmetric shocks, and those that facilitate adjustment and recovery from them. The first category contains OCA criteria including similarity of economic structure, degree of openness and trade, and low levels of specialization, while the latter is concerned with homogenous preferences, factor mobility and the potential for cross-border transfer payments.

Similarity in economic structure is a key criterion for assessing a region's suitability for forming a currency union and is strongly positively correlated to the EMU's capacity for reducing asymmetric shock. Unfortunately, evidence has consistently shown substantial divergences among euro area economies since the start of the EMU. For example, in 2011, per capita GDP as a percentage of the Eurozone's average ranged from 65% for Slovakia to 115% for Finland (Jager & Hafner, 2013). Furthermore, the EMU's labor markets, which reflect levels of convergence in competitiveness and economic growth, have been remarkably divergent and strongly support the heterogeneity hypothesis.

Openness and increased intra-regional trade are also OCA criteria that are positively correlated to a decrease in the risk of asymmetric shocks. Similar to economic structures, however, evidence of these traits in the EMU is quite weak. When the Eurozone was established, euro-optimists had high hopes that the new

common currency would create a surge in regional trade and allow member states to become much more economically open to one another. For example, Rose and van Wincoop (2001) projected that intra-EU trade would increase by at least 50% following the launch of the euro; however, from 1999-2011 the increase in intra-EU trade has remained modestly stagnant at about 5% (figure 7).

**Figure 7**  
**Intra-EU27 Trade (% of GDP)**



Source: Jager & Hafner (2013)

The rise in trade integration within the Eurozone also remains far below anticipated levels and has had negligible impact on overall convergence in the EMU. Initially proposed by McKinnon in 1963, the openness ratio measures countries' integration in international trade and is calculated by dividing a country's total imports and exports by its GDP. An examination of the Openness Ratio of Eurozone member states further reflects the growing divergence between the periphery and core countries (table 3). Since 1999, the openness ratio has

increased for countries that were already relatively competitive when joining the EMU, including Belgium, the Netherlands and Germany. In contrast, the openness ratio notably declined for Ireland, Spain and Greece, most likely due to the existing differences in competitiveness. This trend can be explained by the pre-existing gap in competitiveness. As the competitive core countries became increasingly open, often at the expense of the periphery, the divergences in competitiveness became self-reinforcing after the common currency was introduced.

**Table 3**  
**Intra-EMU Openness Ratio (%)**

Country / Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Austria	38.1	41.5	42.1	41.7	42.2	44.5	44.7	48.2	48.9	48.0	40.9
Belgium	76.3	84.8	85.4	88.7	88.7	92.4	97.8	103.8	105.9	105.5	88.3
Finland	21.5	24.1	22.1	21.3	22.0	21.9	22.5	24.6	24.6	23.2	18.1
France	23.3	25.6	25.2	23.9	23.6	24.1	24.2	24.8	25.2	25.0	21.5
Germany	22.6	25.5	25.8	25.1	25.7	27.2	28.2	30.0	31.0	31.2	26.3
Greece	15.9	17.0	16.8	15.9	15.5	15.4	14.3	14.8	15.4	15.0	12.4
Ireland	42.6	44.4	44.3	40.1	35.8	36.0	36.9	34.6	32.3	31.1	33.1
Italy	18.3	20.1	19.7	18.7	18.8	18.9	19.0	20.1	20.9	20.5	16.9
Luxembourg	65.1	86.3	87.7	77.1	82.9	88.5	79.2	76.3	73.6	77.0	60.1
Netherlands	55.5	61.6	58.2	54.6	54.1	57.5	60.1	64.2	65.2	66.3	56.6
Portugal	35.8	40.4	42.6	38.8	38.5	38.6	36.4	36.6	36.4	36.8	32.6
Spain	25.8	27.8	26.3	25.1	25.2	25.2	24.8	24.9	25.1	23.4	19.1

Source: Barbosa & Alves (2011)

Jager and Hafner (2013) also propose that homogeneity of preferences among national leaders can be an important factor for resolving EU-level shocks. This argument is theoretically sound, since the development of a monetary union implies that members should share a clear, overarching objective that aligns their national interests in a crucial manner. In the case of the Eurozone, however, the argument becomes contradictory due to the diverse economies, whose divergence is a fundamental cause of asymmetric shocks. Because the shock is asymmetric from the onset, its impact will be equally diverse across member states, thus generating divergent opinions over the plan for recovery. For example the recent debate on Eurobonds reflects this dilemma, as member states are divided between those who support further economic integration that can potentially lead to fiscal union, and those who call for retention of fiscal sovereignty.

In a supranational currency area, factor mobility, including labor market flexibility and cross border capital redistribution, can substantially affect the recovery process from asymmetric shocks. Studies have shown, however, that European labor markets are among the most inflexible in the world. Similar to labor productivity, labor mobility shows little signs of ex post growth and gross migration in the EU has remained steady at less than 5 out of every 1000 residents, less than one third of the gross migration rate in the US (Jager & Hafner, 2013, p. 319). As a result, labor markets have been unable to redistribute the impact of asymmetric shocks and the resulting unemployment in certain member states. Despite belonging to a monetary union, national wage setters have

continued to use national, rather than region-wide inflation as determinants of their individual wage functions (Buscher & Gabrisch, 2012). This prevents the desired ex post synchronization of wage dynamics across member states and tends to create beggar thy neighbor wage policies that contribute to asymmetric shocks in the EMU.

Capital mobility has also been unsuccessful as a recovery mechanism from regional shocks. While FDIs among member states have grown as financial markets have become more interconnected, redistribution of capital in response to shocks remains weak. Lastly, transfer payments may also help currency unions recover from crisis; however, the Eurozone does not currently have a system for direct cross border transfers.

The endogeneity hypothesis was heavily influential on the initial formation of a suboptimal currency union. The failure of member states to meet the OCA criteria *ex ante* simply exacerbated the existing dependence on a hypothesis that ultimately failed to materialize. The failure of the endogeneity hypothesis, however, is often misinterpreted as a failure of OCA theory in general. The persistent divergence and eventual crisis are not the consequences of weaknesses in the OCA criteria, but rather, the selectivity in applying OCA theories, which resulted in many key criteria being left out.

## 7.2 OCA Theory in the Eurozone

Snaith (2014) argues that the main relevance of OCA in empirical applications is not whether it accurately describes the criteria required for currency unions, but rather, whether policymakers believe it does. From a political perspective, the advantages of OCA lay in the internal dissent of the theories themselves. Due to the fragmented and sometimes internally divisive discussions surrounding the differing criteria of OCA, founders of the Euro area were able to appropriate some components of OCA theory while overlooking others. This is reflected by the selective belief in the endogenous dynamics of OCAs. In fact, the strong optimism surrounding the endogeneity hypothesis largely influenced the creation of the suboptimal currency area. Snaith (2013) proposes that the paradox of optimizing a suboptimal currency union *ex post* allowed policymakers to justify “a whole array of political choices” and forego certain key aspects. A crucial OCA criterion that was effectively suppressed by architects of the European project was the requirement that “the domain of fiscal policy and that of the currency area must coincide” (Schelke, 2001, p.16).

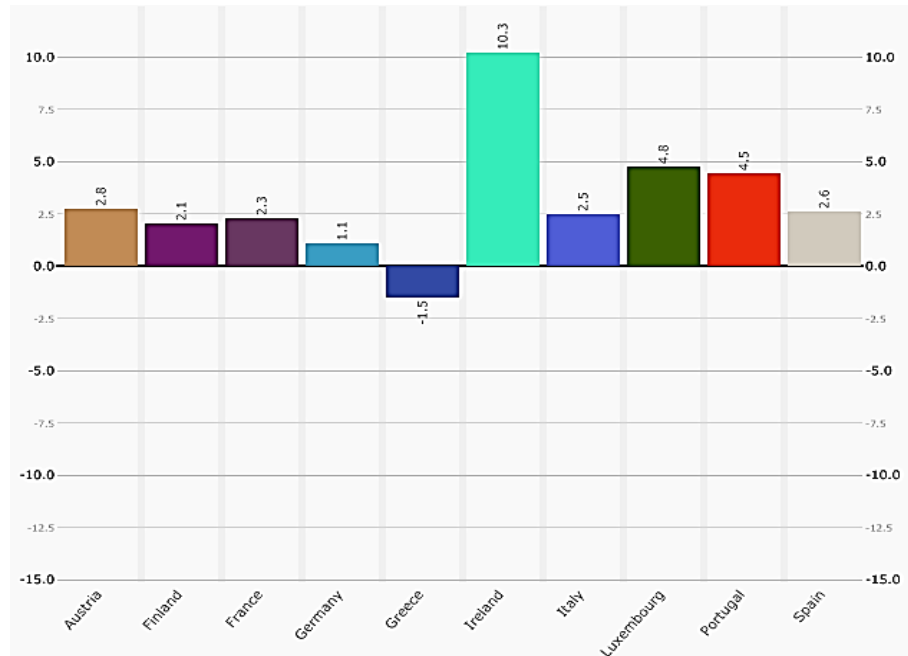
The greatest cost of forming a currency union is the loss of adjustment mechanism, which increases the risk of asymmetric shocks. Thus, the core of OCA theory lies in the criteria that it outlines for mitigating such shocks (Krugman, 2012). Among all the OCA criteria, fiscal integration is arguably the most key to addressing asymmetries, as it allows countries to mutually compensate for one another. OCA theory also suggests that implementing a ‘one

size fits all' monetary policy is likely to augment disparities unless an adaptive fiscal authority can help absorb the impact of regional differentiation (Snaith, 2014). Bodgdan & Romeo's (2009) analysis of the ex post influence of the EMU on member states' business cycle synchronicity supports this theory. Failing to meet the OCA criterion of similarity of business cycles leads to highly differing monetary policy needs for EMU member states. For example, countries with a substantial economic slowdown would require an expansionary monetary policy and interests that can stimulate recovery, while countries in relative economic boom should undergo contraction, with higher interest rates. Thus, this implies that the one size fits all monetary policy imposed by the ECB can actually worsen divergences when applied to an unsuitable currency area.

The authors investigate the difference between real GDP and long run potential GDP and use the resulting output gap as an indicator of business cycle positions for different Eurozone member states. As figure 8 shows, there has been a persistent gap in business cycles positions among EMU members over the past decade, suggesting that synchronicity has not improved since the creation of the currency union.

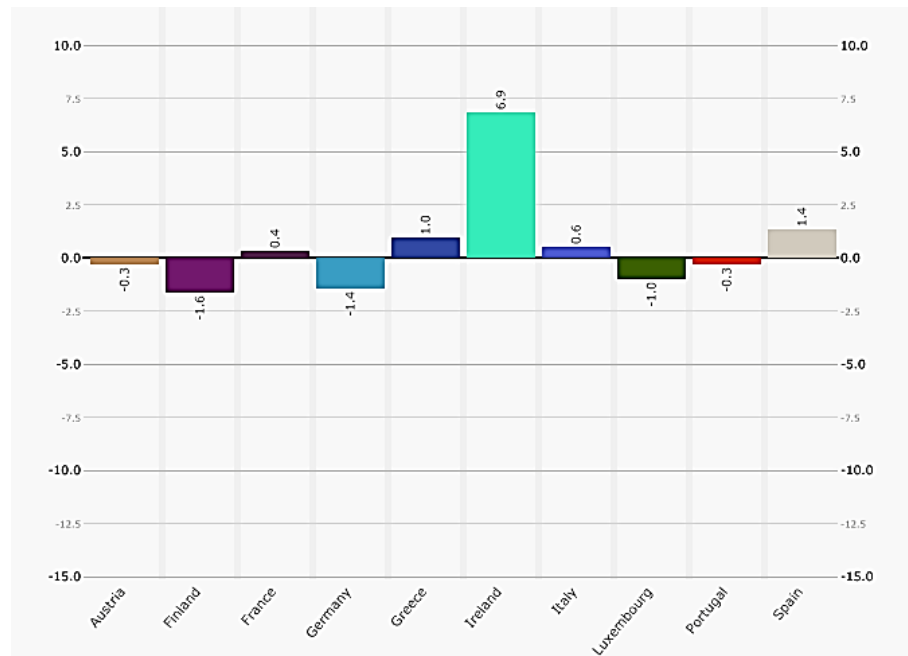


**Figure 8a**  
**Output Gap in Select EMU Countries, 2000 (%)**

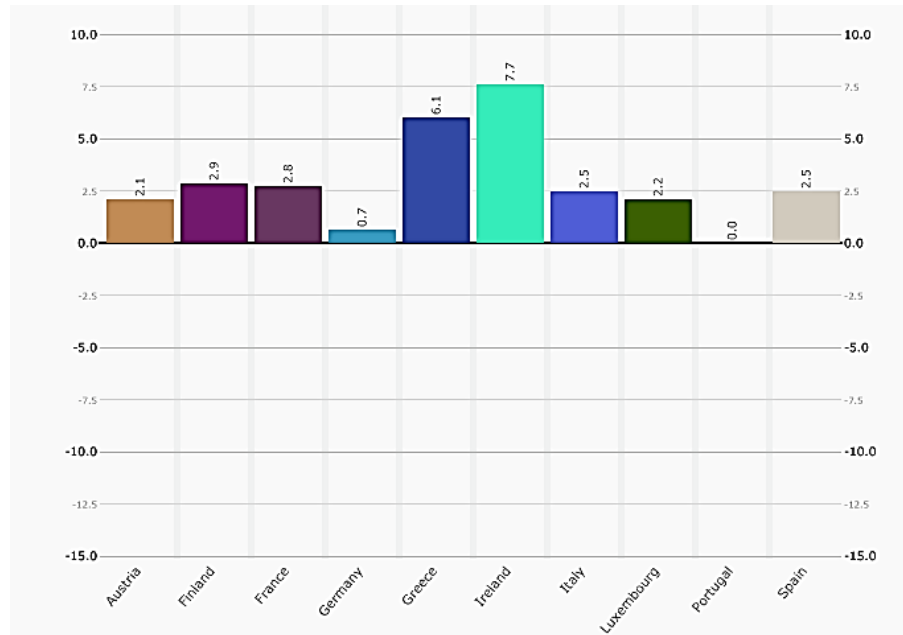


Sources for Figure 8: OECD Economic Outlook Database 93

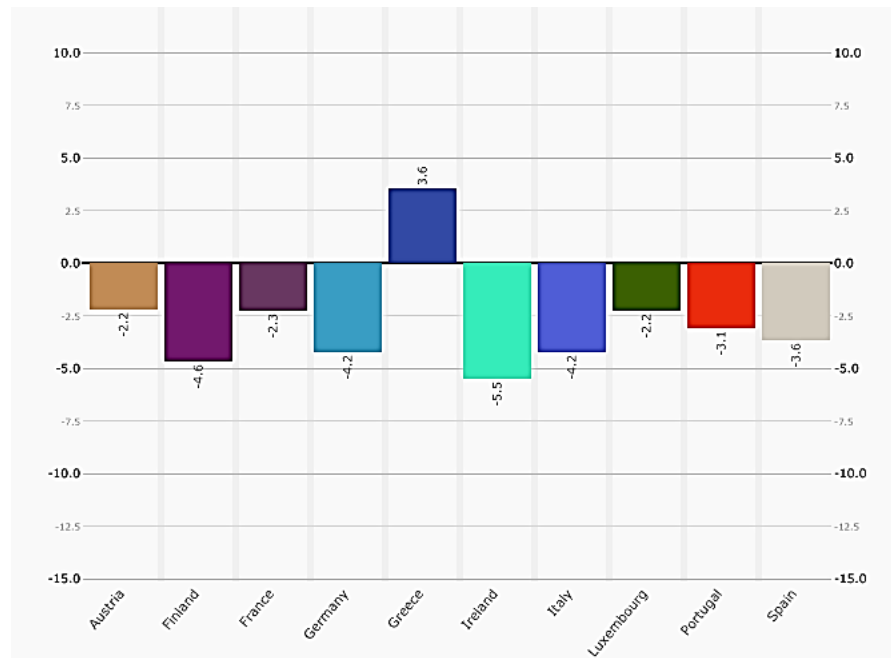
**Figure 8b**  
**Output Gap in Select EMU Countries, 2003 (%)**



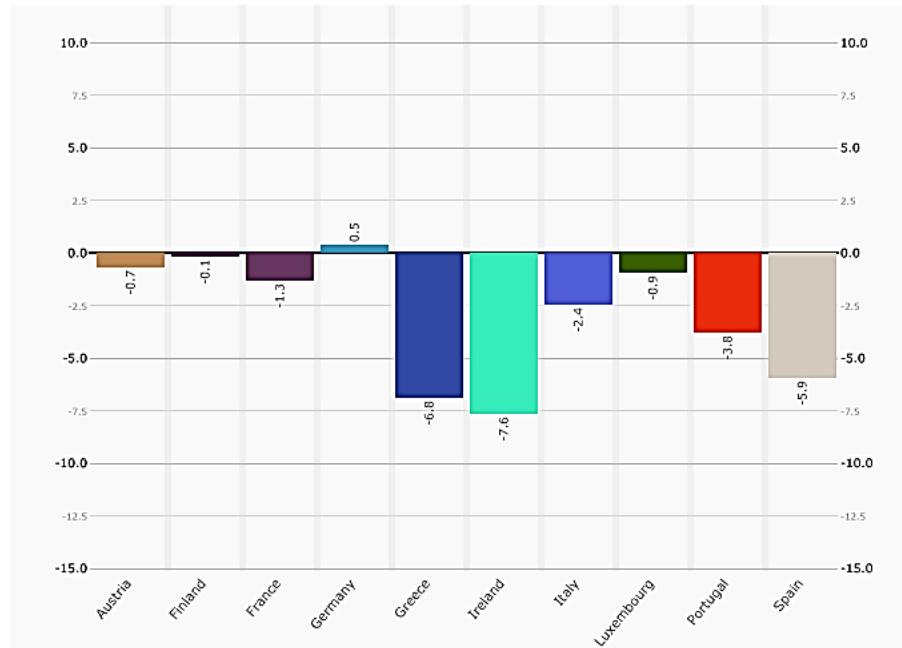
**Figure 8c**  
**Output Gap in Select EMU Countries, 2006 (%)**



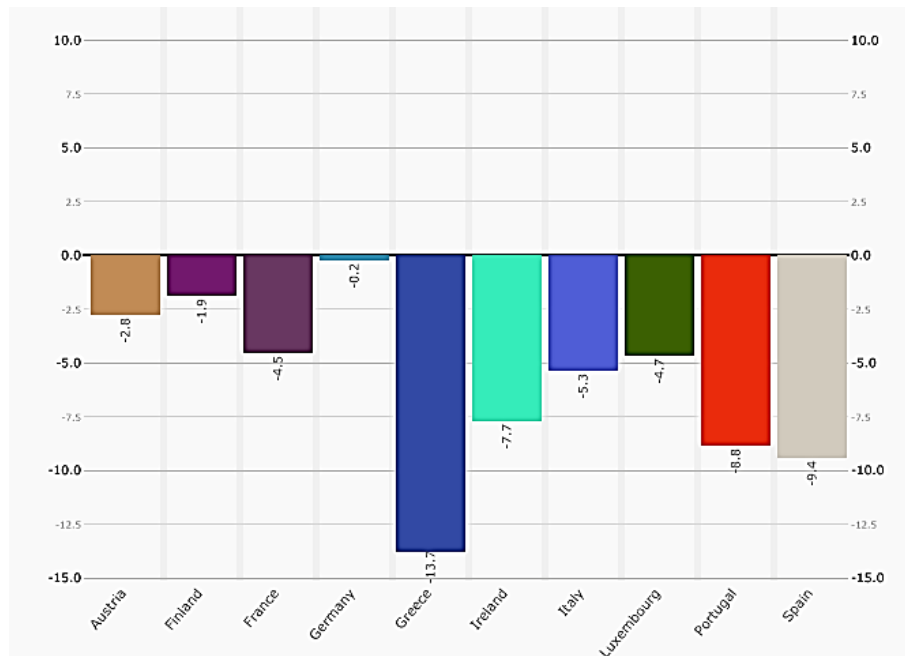
**Figure 8d**  
**Output Gap in Select EMU Countries, 2009 (%)**



**Figure 8e**  
**Output Gap in Select EMU Countries, 2011 (%)**



**Figure 8f**  
**Output Gap in Select EMU Countries, 2014 (%)**



A recent study by Reichenbachas (2013) strongly suggests that indeed, a one size fits all monetary policy does not fit the Eurozone. Using the Taylor Rule, Reichenbachas analyzes the discrepancies between the actual interest rate set by the ECB and the rate that would be optimal for each individual Eurozone member state. Positive numbers indicate that the ECB's actual rate was too low for a particular country, while negative numbers indicate the actual rate was too high compared to a country's optimal rate. His results (table 4) show that prior to the crisis, the ECB rates were generally too low for many countries, while during the crisis, the rates became increasingly asymmetrical. Overall, since the start of the EMU, the ECB's overarching rate has failed to effectively meet the monetary policy needs of individual member states.

**Table 4**  
**Difference Between Eurozone Countries' Optimal Interest Rate**  
**and ECB Key Interest Rate**

Country	ECB actual and countries' optimum			
	2000– 2004	2005– 2007	2008– 2012Q2	2000– 2012Q2
<b>Austria</b>	0.20	1.98	1.53	1.10
<b>Belgium</b>	1.32	2.55	1.57	1.71
<b>Cyprus</b>	2.68	4.57	1.94	2.87
<b>Estonia</b>	5.06	17.81	–0.09	6.26
<b>Finland</b>	0.81	2.72	1.04	1.35
<b>France</b>	1.56	2.81	0.52	1.48
<b>Germany</b>	–0.67	–0.33	0.48	–0.17
<b>Greece</b>	2.35	4.59	1.60	2.77
<b>Ireland</b>	6.15	5.95	–5.72	1.83
<b>Italy</b>	2.97	2.84	0.38	2.00
<b>Luxembourg</b>	2.50	8.00	3.28	4.12
<b>Malta</b>	–0.59	1.48	3.49	1.55
<b>Netherlands</b>	3.52	2.03	0.27	1.99
<b>Portugal</b>	4.69	3.39	–0.65	2.46
<b>Slovakia</b>	6.75	10.82	5.74	7.36
<b>Slovenia</b>	0.77	4.86	1.07	1.86
<b>Spain</b>	4.82	6.50	–0.62	3.27

Source: Reichenbachas (2013)

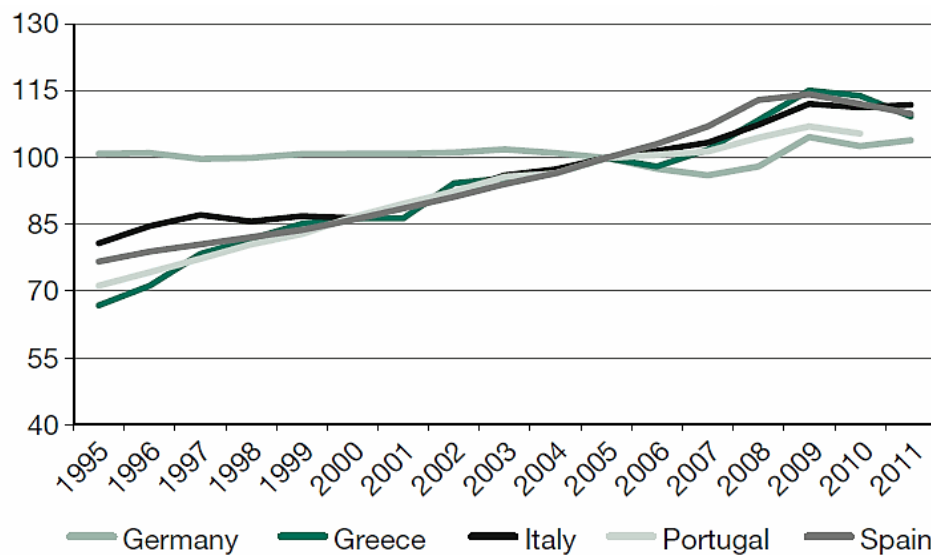
Looking at the overall period from 2000-2012, there is also a notable separation between the countries whose needs were most in line with the ECB's policy and the countries whose needs were most unmet. Unsurprisingly, the former group contains Austria, Finland, France and Germany, while the latter is comprised of Estonia, Greece, Luxembourg, Portugal, Slovakia and Spain, with Italy close behind. This simply reflects another dimension in which the core and peripheral member states have remained divided, despite their shared currency. As a result of these asymmetrical needs, the ECB faces the choice of following the aggregated Euro area need or considering the individual difficulties of member states. However, in either case, the largest countries will continue to have the greatest influence, as the smaller countries have a comparatively much smaller impact on the Eurozone economy.

The lack of fiscal integration, as exemplified by the Stability and Growth Pact, also leads to divergences in other OCA criteria that require coordination among member states, such as wage dynamics and labor markets. Krugman argues that labor market flexibility and labor mobility, are also requisite OCA criteria that failed to materialize in the Eurozone. Unfortunately, euro-optimists severely underestimated the difficulty of balancing competitiveness levels through internal devaluation and labor markets were not flexible enough to bring about the necessary adjustments between the peripheral and core member states.

Consequently, a key source of the current divergence in competitiveness among member states is the divergent wage policies adopted by peripheral and

core countries. The gap in labor productivity has grown between core and peripheral member states, with no evidence of EMU-induced convergence. While labor costs in Germany have generally remained stable, labor costs in the periphery have steadily grown throughout the 1995 – 2008 period, surpassing that of Germany in 2005 (figure 9).

**Figure 9**  
**Unit Labor Cost Index (2005 = 100)**



Source: Jager & Hafner (2013)

In fact, from 1999-2009, Germany was the only one of the founding 12 members of the Eurozone that was able to match its nominal wage growth with an equalizing productivity growth (table 5). In contrast, other member states, particularly those in the periphery, which generally began with lower nominal wages in 1999, experienced large increases in production and labor costs that failed to be offset by the productivity growth necessary to prevent a decline in competitiveness. This has led to criticisms of Germany for implementing “Beggar

**Table 5**  
**Accumulated Growth in Wages, Productivity and Unit Labor Cost (1999-2009)**

Country	1999 average nominal wages	Nominal wages	Productivity	ULC
Austria	32075,64	124.43	115.05	111.44
Belgium	36931,69	130.60	105.58	123.70
Finland	29843,00	139.06	110.91	125.19
France (values for 2008)	33039,36	128.96	113.19	118.46
Germany	30690,25	111.37	112.89	105.99
Greece	16478,56	173.93	129.43	137.88
Ireland	28085,62	164.63	132.57	132.77
Italy	27076,15	126.59	100.68	131.44
Luxembourg	39464,91	135.83	100.62	134.99
Netherlands	28978,06	137.64	112.66	127.28
Portugal	14095,74	142.29	109.98	129.39
Spain	21981,78	141.96	110.05	134.58

Source: Barbosa & Alves (2011)

thy Neighbor” policies, trapping peripheral countries between the choice of maintaining their low competitive levels, or adopting wage moderation reforms that inevitably worsen their consumption growth and unemployment. Given the current differences in wage policies among EMU countries, any attempts at reform are likely to cause competing member states to experience a harsh cycle of mutual wage undercutting.

In addition to the traditional OCA criteria, the financial situation in Europe has shed light on another key characteristic missing from the EMU: a lender of last resort. De Grauwe (2011) initially highlighted the risk of self-fulfilling liquidity crises, which arises in the absence of a supranational banking guarantee. Krugman (2012) advocates that in order to salvage the Eurozone, even a suboptimal Eurozone, member states should concede to a Europe-wide backing of banks and allow the ECB to take on the role of lender of last resort. These criteria were also supported by British Prime Minister David Cameron, who argued that successful currency unions require a central lender of last resort, economic flexibility and a capacity to mitigate shocks through fiscal transfers and collective debt (Gomulka, 2012). Similar to Krugman, he also noted that, “currently, it’s not that the Eurozone doesn’t have all of these; it’s that it doesn’t have any of these” (The Economist, 2012).

In the Eurozone, the ECB was never intended to be a lender of last resort. Since the Eurozone is not an independent sovereignty, the ECB cannot serve both as a lender of last resort for all member states while meeting its responsibility to



maintain low inflation and interest. Though recent bond purchase programs essentially transform the ECB into a de facto lender of last resort, the ECB is still constitutionally prohibited from officially assuming such a role and has repeatedly reassured critics that it still remains within the limits of this mandate. Economic theory suggests that allowing the ECB to act as a lender to governments will raise concerns about moral hazard; however, moral hazard concerns have always existed and are inherent to any multinational currency union. The Stability and Growth pact was meant to reduce free riding concerns through its narrow, restrictive ceilings on fiscal discipline; however this expectation was unmet and moral hazard behaviors persevered. Therefore, while some may oppose establishing a regulatory framework that can induce free riding, this would not bring any drastic changes to a region in which pervasive moral hazard behaviors already exist.

The sovereign debt crisis has revealed that moral hazards may simply be an unavoidable risk, which member states will need to accept if they wish to benefit from the advantages of sharing a common currency. For example, when the European Stability Mechanism was initially established, Germany voiced its opposition to the initiative, citing the moral hazard problems that would undoubtedly arise from offering financial assistance to countries whose insolvency resulted from their own irresponsible governments. However, crises in currency areas are systemic by nature and are unlikely to be contained to a single Eurozone member state. The fragile members of the union are caught in bad

equilibria, while the high degree of integration throughout the region causes these equilibria to affect other member states via externalities and spillovers. Above all, sharing a unified monetary authority means that a crisis in any one particular country cannot be treated in isolation from the Eurozone as a whole. As De Grauwe (2010) argues, “mutual solidarity cannot be avoided in a monetary union, even if it implies solidarity with the sinners”. In this regard, fiscal integration, or even union, would actually decrease the likelihood of negative free riding behaviors, by better aligning national interests so that members of the currency union would have less incentive to free ride off one another. While it may be unrealistic to expect a full ‘United States of Europe’ in the short run, establishing a system of automatic transfers could help generate the “quantum leap” required for fiscal convergence.

### **7.3 A Future for OCA Theory**

A general consensus has been established that, at its conception, the Eurozone did not meet the criteria necessary for an effective OCA. From the beginning, there was a clear distinction between the core and peripheral countries, causing the EMU to be formed by member states with highly differing levels of economic development, inflation vulnerability and fiscal discipline.

Since Mundell introduced the concept of Optimum Currency Areas in 1961, OCA theory has had a difficult relationship with the empirical reality it seeks to describe. There are several contrasting views on the role OCA theory,

including being “an idealized, abstracted model; an empirical proposition; a set of (disputed) political guidelines; and a retrospective justification for policy choices” (Snaith, 2014, p.184). This divergence was reinforced by the changing internal debate around the diverse set of OCA criteria, as Mundell’s original theory underwent several transformations and revisions by different scholars. Applied to the EMU, the theory should not be interpreted as a definitive measurement of whether an OCA exists, since evidence has continued to show that it does not; rather, OCA theory can help provide a spectrum of optimality by which policymakers can determine the degree of suboptimality that is politically acceptable. As a result, the decisions on the permissible level of noncompliance with OCA criteria become a political responsibility.

The role of OCA theory in guiding policy in the EMU has been met with various obstacles and controversies. OCA theory has been criticized both prior to and after the formation of the Eurozone. In the early 1970s, critics targeted the impracticality of OCA theories and their inapplicability to empirical reality. Later on, following the launch of the euro, critics of OCA theory pointed to the EMU’s failure to become an OCA, arguing that “if the EMU is not an OCA, OCA is not a useful analytical tool” (Snaith, 2014, p.188).

Though the prominence of OCA theories as a guiding framework for the EMU has declined since the 1990s, the main criteria outlined by OCA theories are still highly relevant to analyzing the successes and, perhaps more importantly, the failures that the Eurozone has experienced. Contrary to the belief of OCA critics,

OCA theory has not been rendered irrelevant by the apparent failures of the Eurozone. Rather, these shortcomings are the consequences of an unfortunate dependence on the endogeneity hypothesis and a fiscal framework that left too much independence in the hands of member states to generate economic convergence. Given the continued attempts to generate economic coordination through the SGP and the resulting persistent lack of convergence among Eurozone states, reconsideration of the often dismissed OCA criteria may offer valuable insights to the economic needs of a currency area that has been guided by a predominantly political framework.

One of the strongest evidence of the predictive and explanatory power of OCA theory is the OCA index, which arguably offers a much better guiding framework than the Maastricht Treaty or SGP for governance in the EMU. Initially developed in 1997 by Bayoumi and Eichengreen, the index was later updated by Vieira and Vieira (2012) in a comparative study of the pre-euro and post-euro era. Using panel data from 1979-2008, Vieira and Vieira construct a country-specific OCA index (table 6) using explanatory variables that indicate endogenous dynamics. These include business cycle correlation, similarity of export composition and bilateral openness. They then compute the index values by comparing each country's OCA characteristics to the reference country, Germany, in which a lower index values indicate a higher suitability for becoming an OCA. This was adopted from Bayoumi and Eichengreen's model, which also calculated OCA indices based on comparison to Germany. They justified their

Table 6  
Rankings of OCA Indices for European Countries

	1988	1993	2008
Belgium	0.020863	Austria	Belgium
Netherlands	0.024403	Belgium	Austria
Austria	0.036674	Netherlands	Netherlands
Switzerland	0.051694	Switzerland	Switzerland
Sweden	0.056076	Portugal	Finland
Ireland	0.061380	Denmark	Denmark
Italy	0.062442	Italy	Sweden
Finland	0.065084	France	Portugal
France	0.067177	Ireland	France
Denmark	0.076095	Spain	Italy
Greece	0.079408	Sweden	Spain
Norway	0.085351	Greece	UK
Portugal	0.089102	Norway	Norway
UK	0.090104	UK	Greece
Spain	0.092621	Finland	Ireland

*Note: The index is computed using the regression estimates obtained above for the bilateral relationships with Germany.*

Source: Vieira and Vieira (2012)

original choice on the political conditions of the mid-1990s, when Germany was widely viewed as the core to which potential member states needed to converge to join the EMU. Similarly, Vieira and Vieira rationalize their decision with the claim that Germany is “traditionally regarded as the EU’s anchor country” (p. 11). The EMU failed to improve OCA characteristics for countries where the expectation was greatest, which further weakens the endogeneity hypothesis. A comparison of the decade immediately preceding and following the introduction of the euro also reveals that countries currently experiencing the greatest difficulties had the worse OCA indices. Furthermore, there is also a strong positive correlation between countries’ 1998 OCA index and their 2009 government deficit levels. This suggests that an OCA index can help anticipate problems such as the buildup of government debt in southern euro area countries due to loss of domestic monetary policy tools. As a result, Vieira and Vieira argue that from the onset, an OCA index may have been a better indicator of EMU entry eligibility than the conditions outlined by the Maastricht Treaty and Stability and Growth Pact.

Dapontas (2013) constructs a similar OCA index without pegging the criteria to Germany. He incorporates the existing asymmetries in the Eurozone and examines 11 criteria, including labor freedom, fiscal spending, business and trade. The resulting rank of EMU countries shows that 10 of the current member states have positive index scores, indicating that they are suitable candidates to form an OCA. These countries comprise the current euro core: Austria, Belgium,

Cyprus, Estonia, Finland, France, Germany, Ireland, Luxemburg and the Netherlands. In contrast, the remaining seven member states, including Greece, Italy, Portugal and Spain, have negative scores, signifying that significant transformations will be required before they meet the OCA criteria.

## **CHAPTER 8**

### **CONCLUSION**

The structural problems currently facing Europe are largely the consequence of disregarding key criteria of optimum currency area theory. In particular, the lack of political and fiscal integration creates a fundamental difference of interests among member states, which makes it very difficult to achieve the other OCA criteria, such as wage dynamics and labor market flexibility. Now nearly two decades since its formation, the Eurozone has evolved into a currency union with strong political investments, but which is riddled with asymmetries that need to be addressed from an economic perspective. This involves a return to the basic OCA criteria and the theory that initially inspired the creation of the EMU.

Recent experiences have revealed that the currency union cannot be expected to function as a true union while it lacks an effective, supranational fiscal authority to operate alongside the ECB. The reforms to restabilize the Eurozone and set it towards an economically sustainable path will come at political costs and loss of fiscal sovereignty, but these are inherent to joining the currency union, and as the unsuccessful attempts of the last fifteen years have shown, cannot not be avoided.



Beyond a monetary union, the Eurozone also stands at the heart of a broader project of European Integration. As a result, turning back to national currencies is no longer an option and fiscal integration stands as the only way forward. The political costs may be high, but the economic and political costs of disintegration would be infinitely greater. Even as early as 1998, when initial discussion of the potential collapse of the Eurozone arose, Eichengreen argued that, once leaders decided to proceed with establishing the currency union despite the economic warning signs, the decision would be irreversible. Aside from the legal implications of abandoning the international treaty, conceding the failure of the Eurozone would “cast into doubt the entire European construction back to the Treaty of Rome” (Eichengreen, p.3). Adding to this the fifteen years of sociopolitical integration and national investment that have followed since the creation of the euro, these myriad of additional barriers to exit have been developed simply reinforce the belief that the monetary union, once established, can only be “doomed to succeed” (Eichengreen, p.3).

This thesis sought to provide a detailed analysis of the current imbalances in the Eurozone and its recovery strategies from the crisis. We began with an investigation of the theoretical origins of supranational currency unions as depicted by the theories of Optimum Currency Areas. Following, we presented an overview of the persistent divergences among Eurozone member states, which have widened over the past decade. We traced the patterns of countries’ fiscal indiscipline through analyzing the origins and transformations of the Stability and

Growth Pact. Then, we offered a discussion of recent measures undertaken by the ECB to bail out distressed EMU members and the ramifications of these programs. Lastly, we revisited the OCA theories and the critical endogeneity hypothesis that failed to materialize in the Eurozone. We concluded by proposing a reconciliation of the OCA criteria with both fiscal and monetary domains in governing the EMU on its path to recovery and the future.

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