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Όλα καλά (All is fine): Greece and its denial of economic and financial negligence

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Όλα καλά (All is Fine): Greece and Its Denial of Economic and Financial Negligence

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by Jasmine Skye Love Grindle

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Accepted by the faculty of the Department of Economics, James Madison University, in partial fulfillment of the requirements for the Honors Program.

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Abstract

This paper aims to compile past research on the sovereign debt crisis as well as the formation and role of monetary unions, specifically optimal currency areas. It further analyzes the causes as well as possible future consequences for Greece and the European Monetary Union (EMU). It will provide a history of how Greece reached the debt levels it did and the measures taken by the EMU over the past decade. There are multiple responsible parties for the conditions that have prevailed in Greece. These parties include the investors in Greek assets, the EMU, and the rating agencies as well as the Greek government and Greek citizens.

Investors have a responsibility to inform themselves of the economic and financial conditions of their investments; however, without the due diligence of the ratings agencies and with the corruption prevalent in the Greek economy, their job became exceedingly difficult. The European Monetary Union failed to monitor excessive deficit levels of member countries, but Greece also falsified its financials to allow for its admittance into the monetary union. The thesis further draws the connection between corruption, interest rates, and Greece's debt accumulation. The excessive build-up of debt (that resulted in the sovereign debt crisis and collapse of the economy) was ultimately a result of the Greek government overspending to meet the standard of living expectations of Greek citizens.

The primary consequences discussed are the results of Greece's continued membership in the monetary union versus a possible "grexit" (Greece leaving the union). The hypothetical benefits and drawbacks to both options are evaluated. The thesis concludes with my recommendation for a focus on fiscal and political unity to reduce the probability that such a crisis will occur in the future. One of the fundamental reasons for the creation of the EMU was to promote a positive relationship between admitted countries, but the crisis has strained those

relationships. The only way to rebuild the monetary union is to understand what happened in the first place and implement future strategies to protect those relationships.

Part I: Introduction

Όλα καλά (Ola Kala)! The translation of this phrase is “it is all fine” in Greek. Given the recent economic crisis in Greece, this is now unlikely said about the country. There have been numerous analyses on the sovereign debt crisis in Europe and the factors that contributed to it. In short, the crisis resulted from certain Eurozone member countries’ inability to repay their accumulated government debt. The recession experienced by Greece as a consequence of its excessive debt compares only to that of the United States during the Great Depression, as seen in Figure 1. The literature to date on the Greek debt crisis focuses on the European Monetary Union (EMU), the situation in Greece leading up to and including the crisis, and the corruption in the Greek economy. Government corruption and tax evasion are two of the primary contributors toward Greece’s unsustainable lifestyle and its resulting high debt levels. Much of the research on the difficulties monetary unions face and the role corruption has on an economy was available prior to the crisis and could have served as warning signs of the potential problems for both Greece and the Eurozone as a whole.

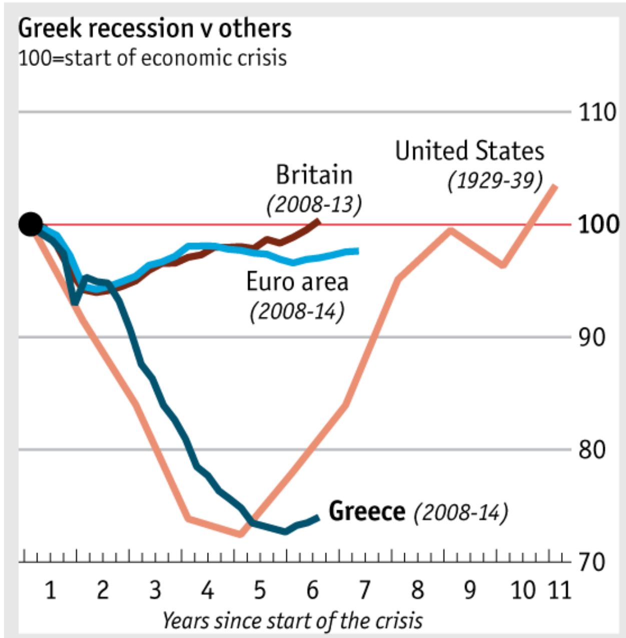

Figure 1. Greece's GDP compared to other areas during the economic crises in terms of their length and severity. GDP refers to Gross Domestic Product. Copyright 2015 by the Economist.com

This thesis examines the negligence of the parties involved in fueling the Greek debt crisis. The parties evaluated include the investors in Greek assets, the EMU, and the rating agencies as well as the Greek government and Greek citizens. Investors continued to feed Greece's debt habits because of either the assumed underwriting of the debt by the EMU or the overconfidence in Greece's fiscal future. Many investors believed the EMU would assist any struggling country and prevent an economic crisis from forming. The EMU failed at effectively policing its member countries' fiscal policy and adherence to the Maastricht Treaty. The lack of proper regulation resulted in a fiscal wedge forming between countries with more conservative policies, like Germany, and those countries with more liberal policies, like Greece. The increasing fiscal diversity between the countries has only worsened their ability to compromise and unify in times of economic hardship, as observed with the current situation in Greece. Nation leaders and the EMU are not the only ones at fault for the severity of the crisis, the rating agencies have also played a role. Rating agencies are supposed to indicate the financial health of debtors; however, in the years leading to the crisis, they primarily focused on the political opinions expressed on Greece's economic condition, resulting in long overdue and drastic drops in debt ratings that further intensified the crisis. Greece also failed to monitor and fix its corruption and overspending, primarily due to the example set by the Greek government and the lifestyle expected by the Greek citizens.

Finally, whether Greece will remain in the Eurozone or be forced to leave will greatly affect the future of both the country and the European Monetary Union. Although Greece only makes up a small portion of the monetary union, what happens in the next few years in Greece could set a precedent for future policies and assistance given to other EMU countries experiencing similar economic troubles. One example is Italy, which also has high sovereign debt and the same corruption rating. The example set by the EMU in bailing out Greece, despite its fiscal irresponsibility and the risk associated with it, may result in other countries in the EMU taking similar risks and expecting the same protection. If this moral hazard problem were to arise, what has been a small-scale issue would instead become a debt epidemic within the EMU.

The policy response by the EMU is crucial because many believe the euro may one day rival the dollar as the principal reserve currency and serve a growing portion of the world's economic activity. In order to compete with the dollar as the primary reserve currency, however, four conditions would have to be met: The European financial markets would have to be liquid (with the euro able to be commonly and quickly exchanged), "deep" (large quantities of the euro can be bought or sold without drastically altering the value of the currency), maintain a stable exchange rate, and the euro must be backed by a strong economy and a government that instills international investor confidence in its stability (Conerly, 2013). The Eurozone meets the first three criteria, but, with the events of the sovereign debt crisis, investor confidence has been hurt, the most damage resulting from the Greek crisis. The present condition in the Eurozone may make the United States dollar and the Chinese yuan more viable alternatives than the euro (Maverick, 2015). This only further exemplifies the importance of correctly evaluating the causes of Greece's economic condition and how the EMU should respond presently and in the future in order to become a strong rival to the dollar.

Part II: Literature Review

1. The Formation of a Monetary Union and the Role it Plays

In June of 2012, Robert A. Mundell, referred to as the "godfather of the euro" for his advocacy of the Eurozone, said "the euro is more than just the icing on the cake on the single European market and the European Union (EU), it is the glue that keeps the core of Europe together" (Corcoran, 2012). This view perceives the euro as crucial to the political integration of Europe. In 1992, participating European countries signed the Maastricht Treaty to create what is now known as the Eurozone. The Eurozone is a monetary union: a group of countries under the same currency and monetary policy monitored by a single central bank. Although a monetary union is relatively easy to define, it is difficult to successfully implement. Currently the 19 members of the European Union that are using the euro are Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Portugal, Slovakia, Slovenia, and Spain. Denmark and the United Kingdom opted-out of the treaty while others still wait to meet the criteria for admittance. These candidate countries are evaluated every two years by the European Commission and the European Central Bank on the following convergence criteria ("Who can join and when?"):

- <u>Price Stability</u>: Consumer price inflation rate no greater than 1.5% points above the rate of the three best performing member states
- <u>Sound Public Finances</u>: Government deficit no more than 3% of GDP
- <u>Sustainable Public Finances:</u> Government debt no more than 60% of GDP
- <u>Durability of Convergence:</u> Long-term rates no more than 2% points above the rate of the three best performing member states in terms of price stability

- Exchange Rate Stability: Participation in ERM 2 (Exchange Rate Mechanism) for at least 2 years without severe tensions
- Integration: Adoption of the euro
- Independence of National Central Banks: monetary policy by ECB is independent

In 1997, five years after the treaty was put into place, the Stability and Growth Pact (SGP) was signed by EU member states in order to monitor and enforce the debt and deficit criteria set by the Maastricht Treaty. The pact included two sets of rules, preventative and corrective. Prevention comes in the form of the Medium-Term Budgetary Objective (MTO), which is a target that holds members to Maastricht treaty agreements. Corrective rules come from the Excessive Deficit Procedure (EDP), which works to reduce excessive debt levels (levels exceeding the terms outlined above). The preventative rules were set into motion in 1999 and corrective rules in 2005, the second was especially prevalent with the Greek deficit uncovered the year before (2004).

Countries joining the Eurozone have had many reasons to do so. A monetary union avoids many transaction costs such as that of converting currencies, thereby improving transparency and trade. A common currency also alleviates exchange rate risk. The elimination of exchange rate volatility for member countries promotes increased confidence in the stability of a country's economy. Less risk results in a lower interest rate that sparks investment. Investment is the lifeblood of a country, but investment depends on the confidence in the future health of a country, including its currency.

In a speech given to Tel-Aviv University in December of 1997, Robert A. Mundell contributed to the reasons to join a group of countries sharing a currency (currency area or monetary union). Possibly one of the most important reasons for a monetary union is the word itself, “union”. Unity can act as a “catalyst for political alliance or integration,” which can help a world plagued by terror and distrust (Mundell, 1997). These alliances could also aid smaller countries in having their joint voices heard on an international scale. A country may additionally decide to join a union to remove the temptation to use primarily activist monetary policy to affect output, inflation, employment, and interest rates as well as to stabilize its exchange rate. A monetary union also allows purchasing power parity to hold more strongly between member countries. Purchasing power parity is an economic theory asserting that when two countries have equal purchasing power of goods, the exchange rates are in equilibrium (in the case of a monetary union, the only barrier to equilibrium price levels are any remaining transaction costs). It is found that this parity holds relatively well between developed countries, but is weaker between developing countries and those outside of a monetary union (Simonoff, 2015). These were all reasons many countries, such as Greece, decided to join the European Monetary Union.

Although a monetary union creates many benefits for a country, inherent costs also exist with membership. Upon admittance to the EMU, Greece was aware of these costs. The loss of independent monetary policy is one of the central problems, especially when a number of countries are at different points in their business cycles and could benefit from this option when trying to ease economic difficulties. For example, asymmetric macroeconomic shocks to aggregate supply or demand, affecting only a subset of the monetary union, make stabilization policy difficult without the option of devaluing currencies. Easy money for that subset is no longer an option due to inaccessibility of monetary policy and countries experiencing negative shocks must endure internal devaluation (“classical medicine”). One form of internal devaluation would be reducing public sector wages, like Greece has done throughout the debt crisis. Problems with internal devaluation are the slowing of economic growth and increased unemployment, further stalling recovery. Greece has struggled with both of these problems, as will be discussed in a later section.

In any monetary union, the tradeoff between unemployment and inflation may arise, as Mundell discussed and the Phillips curve models (with respect to a single country). One country in the union can be booming with inflationary pressure from asymmetric positive demand shocks, while a struggling country faces rising unemployment. He elaborates that this principle does not apply to unstable or very large countries where there is no established international monetary system due to the difficulty in maintaining fixed rates. With flexible exchange rates, both countries would have the option to use monetary policy to alleviate these contrasting problems (ex: printing money), which is not the case if they are linked either by fixed rates or a monetary union.

Without either fiscal coordination between countries or “cross-border (or country) compensation,” effective policy responses to asymmetric shocks in a monetary union are difficult or near impossible. “Cross-border compensation” was addressed with respect to the United States by Paul Krugman as the “automatic compensating transfer from the rest of the country” to support a region in need (Gilsinan, 2015). This is where the United States and the Eurozone differ, however. The United States is viewed as a nation state, where Federal programs are intended for all states. When a state is experiencing economic hardship, other states compensate by indirectly giving stimulus to the one that is struggling through the Federal government. This is primarily due to the equal dependence of the states on Federal programs supported by revenue from the states. This means that recessions in a given state hurt the whole country. The Eurozone, in contrast, is not a nation state with fiscal unity (a coordination of fiscal policies within the monetary union or a single fiscal policy applied to all members) and expectations of such support. The lack of fiscal unity within the EMU is one aspect of the monetary union that has been challenged by economists in the midst of the economic hardships endured by certain countries in the EMU because of the sovereign debt crisis. The Eurozone is faced with the decision of whether or not to support Greece, one of the struggling countries, and the consequences that would follow.

In the same 1997 speech, Mundell listed further reasons for countries, such as those within the United Kingdom, to decide against a monetary union. One reason is to allow flexibility for differing inflation rates. Another may be due to the added constraints on macroeconomic policy (coordination efforts and meeting budget, debt-to-GDP ratio and interest rate requirements). He ends his reasoning against the formation of a monetary union with the idea of integration. A country may be hesitant or even refuse to adhere to the common standards (treaty requirements) and fiscal policies of the rest of the area (referring to fiscal unity or fiscal coordination). This integration has been one of the primary struggles facing the Eurozone, which is composed of countries with diverse cultures and expectations of living standards. There are also the disadvantages not mentioned by Mundell, such as loss of the confidentiality of government statistics/data, difficulty in maintaining effective leadership and its resulting political instability, and difficulty in establishing confidence in the permanence of a balanced budget.

A monetary union can be a powerful way to instill confidence in a body of countries and strengthen each member (through underwriting and coordination efforts), however for many of the reasons listed above (primarily the loss of independent monetary policy) it is better suited for countries fitting within an “Optimal Currency Area.” This idea was proposed by Robert Mundell in an article written in 1961, entitled “A Theory of Optimum Currency Areas” (Mundell, 1968). Mundell went on to receive the Nobel Prize in Economics in 1999 for this theory, the same year that 11 European countries adopted the euro. Mundell denies that the whole world would qualify as an optimum currency area, which would call for a single worldwide currency as favored by internationalists like economist John Stuart Mill (Mussey et al., 1909, p. 54). Mundell believes a world currency could be practical for the future world economy (in easing international transactions and, therefore, relations), but the current instability of the international monetary system, makes today's world far from that point (Corcoran, 2012). He instead defines the "current optimal (currency) area" as an area with the "ability to stabilize national employment and price levels" (Mundell, 1968). Employment instability is especially prevalent in Greece which has the highest unemployment rate within the European Union with a rate of 24.6% as of October 2015, a large number of which are young adults ("Unemployment statistics", 2015). Compared to the United States unemployment rate of 5%, as of November 2015, the euro area's rate as a whole is double ("National employment monthly update", 2015).

Three of Mundell's key points are as follows: Small countries within a monetary union require budgetary discipline and are likely to need fiscal unity with larger members due to different standards of living (generally higher expected living standards but lower means of attaining those standards, an example being Greece); the more countries included in a monetary union, the more insulation from shocks due to economic variety; and trading convenience can be found in areas with more countries through variety of product options without the hassle of exchange rate conversions. Greece's lack of fiscal discipline leading to the debt crisis demonstrates the first point Mundell makes. The second point may have reduced the severity of the crisis, but has caused conflicts between political powers of different countries in the negotiation processes (e.g. Greece and Germany). The last point is not clearly visible in the

EMU, because although the euro eases trading, there is still an export/import imbalance between countries, making some thrive over others.

An important factor influencing the relative advantages of an optimal currency area is the degree of factor mobility. Factor mobility concerns the ease at which labor, capital, and other factors of production can be transferred between countries. Mundell proposed a need for high levels of mobility in a monetary union, pushing the markets within the union into equilibrium, and low levels externally with other regions, to avoid an outflow of factors making the union unsustainable. The exact level of mobility required for optimality is disputed (especially with respect to its restriction on a country's ability to tax those factors). Though in a later interview, Mundell clarifies that the advantages of information availability and diminishing transaction costs of a monetary union must overcome the problems of insufficient labor mobility (if they exist) for a monetary union to be preferable, noting that insufficient labor mobility is not the primary cause of the financial problems of Greece (Corcoran, 2012).

Another problem addressed in Mundell's writings was a contagion effect similar to the spread of the depression after 1929 that many economists believe resulted from the gold standard. "Under a common currency, depression in one region would be transmitted to other regions for precisely the same reasons (i.e., the reliance on the same medium of exchange)" (Mundell, 1968). If the unemployment and other debt related problems experienced in Greece were to flood into other countries already struggling, it could lead to an economic collapse of the monetary union.

Mundell did make some incorrect assumptions about the formation of the European Monetary Union, as did many economists at the time of its creation. Mundell believed that the United Kingdom would choose to join the EMU with the costs of opting out (foregoing the benefits of the monetary union mentioned earlier) being as large as they were; however, it still chose to opt out. As for Greece, Mundell correctly anticipated its acceptance into the Eurozone. He did not, however, foresee its acceptance through the falsification of deficit records. There was not a “real effort to put other elements of its economic house in order,” a house that recently faced tribulations and was searching for the insurance of the monetary union (Mundell, 1997). Mundell proceeded to assert that if not accepted into the Eurozone, Greece should still have fixed the drachma to the euro with narrow margins and that the “more countries that join the bloc (EMU), the greater will be its chance of success” (Mundell, 1997). Only the aftermath of the crisis and the reactions of the monetary union as it learns from its mistakes will tell if Mundell was correct on his last point.

Mundell is quoted as thinking of the euro as a political and economic triumph in 2012, well after the beginning of the Greek crisis. Despite the lack of fiscal policy harmonization, he stood by the assertion that the euro may one day replace the dollar as the international reserve asset. He went on to say that a “grexit”, although possibly disastrous for Greece, could indeed strengthen the union by cutting off the suffering entity and allowing for a quicker recovery for the monetary union. Mundell continues to discuss a necessary shift from nation-states towards a central power, with the European Commission as the executive power and the European Council as the legislative power. Mundell also argues that fiscal unity is not a prerequisite for a well-functioning monetary union, referencing the United States and Canada as examples. He promotes the distribution of responsibilities (including fiscal policy, defense, and social security) between the European Commission (“federal power”) and the individual countries “on grounds of efficiency and economic justice, not on grounds that they are necessary for monetary union” (Corcoran, 2012). He effectively states that powers are assigned based on what is efficient and effective for the unique area or country and are not based on a set of universal rules, one fiscal policy may not fit all members of the union.

"The steps that are needed to resolve the crisis will move Europe toward a more perfect union," Mundell wrote (Corcoran, 2012). This crisis has forced the EMU to work together toward future solutions and preventative measures (e.g. more restrictive regulatory enforcement by the SGP). A careful examination of the existing literature about monetary unions prior to the Maastricht Treaty in 1999 would have presented some of the warning signs of possible future distress and could have prevented some of the repercussions of the crisis. Slowly, the EMU may achieve "a more perfect union," but for now they still have much to learn about the mistakes that were made and what parties made them.

2. The Situation in Greece

Despite the warning signs that were present prior to Greece's admittance into the Eurozone, Greece continued on a trajectory towards its current instability. The last year (2015) has included bailouts, referendums, elections, and bank shutdowns, but the circumstances Greece finds itself in cannot be explained solely by the events of last year, because it was the culmination of thirty years of fiscal irresponsibility and misplaced trust in the existing governance. Starting in late 2009, the sovereign debt crisis would begin to reveal many of the cracks already present in the decade old European Monetary Union.

In order to truly understand the current situation in Greece, it is important to have a brief overview of what brought Greece to where it is today. Greece's culture can be described as "laid back." There is a strong focus on family, from children living with their parents until marriage to taking care of their grandparents regardless of the expense. Similar to a few European countries, Greeks would eat out regularly and rest after the big meal. They spent their money while they could still get good credit. Starting in the 1980s corruption bled out of the political system. The two major political parties (PASOK, the moderate left party, and New Democracy, the moderate right party) would direct government spending to benefit their supporters either through government jobs or in the private sectors (Mchugh, July 2015). Tax evasion also entered the scene as another way to line the pockets of the corrupt. Additionally, Greece's media were "intertwined with the political structure, which prevented reporting of financial mismanagement" (Shorto, 2012). Not until the EMU was beginning to form did Greece have to acknowledge their excessive debt accumulation. Greece was not initially allowed to join the EMU. Only after policy revisions and deficit reductions were they allowed to join the monetary union in 2001. Along with many of the aforementioned reasons for joining a monetary union, Greece also sought the lower credit terms linked to the euro. With such favorable credit after admittance, Greece quickly fell back into its earlier debt activities and corrupt practices. None of this is to say that Greeks are not just as hard working as other countries. In 2008 Greeks worked on average 1,000 more hours than Germans (Shorto, 2012). Greece just grew accustomed to borrowing and regularly refinancing their debt. The initial lower interest rates of the Eurozone lured them in, but when their debt was uncovered they became stuck in what is called a "debt-trap" (i.e., borrowing and acquiring debt to the point even more would have to be borrowed just to pay off the interest), which will be elaborated on in the section on corruption.

Greece had been running deficits every year from the mid-1990s ("Greece Government Budget", 2016). In 2004, Greece held the summer Olympics, adding another €9 billion to public expenditures and marking the most expensive Games to be held up to that point (Malkoutzis, 2012). €7 billion was supposed to be supported by taxes, but consistent with Greece's history of tax evasion, much of it was funded through additional borrowing ("Greece Crisis: How did It Get This Bad", 2015). That same year (2004), Greece admitted to falsifying deficit information to enter the Eurozone with the help of Goldman Sachs through a series of swap agreements (Dunbar, 2003). There is still no agreement over how the debt was able to build up for so long or how Greece was able to keep it hidden so well even with help they received from Goldman Sachs. When the global financial crisis hit in 2008, banks began to restrict lending, forcing Greece to look to the European Union and the International Monetary Fund for support.

In February of 2010, the first austerity plan for Greece was set in motion after facing pressure from both the EU and the European Commission. A freeze was placed on public-sector wages and taxes were increased. Just a month later, another fiscal package was approved by the European Commission, which consisted of even more public-sector pay cuts and tax increases

(VAT, consumption, and income). It came as no surprise that in the following two months S&P downgraded Greek government bonds to junk status and a €110 billion bailout package was agreed to by IMF and Eurozone leaders. Downgrades continued into 2011, resulting in Greece possessing the "world's lowest-rated sovereign debt" (Ray, 2015). The year 2011 only produced further austerity measures and rescue packages. One package in particular was for €109 billion from European Union leaders in which existing loans were restructured with more generous terms for Greece. Greece was also labeled as being in "selective" or temporary default by Fitch as a result of their second bailout.

A meeting of Greece's creditors in 2011 set forth a series of bond swaps that would cut Greek debt in half by switching existing debt for new debt with half of the face value. During the course of the year, the European Stability Mechanism was created to be a lender of last resort for countries in the Eurozone that were struggling. The European Financial Stability Facility (EFSF) was also expanded. The EFSF is a company that aims to "preserve financial stability of Europe's monetary union by providing temporary financial assistance to euro area member states if needed" ("European Financial Stability Facility (EFSF)", 2013). The expansion of scope included the ability to guarantee commitments for €780 billion by issuing debt instruments and intervening in the debt markets (both primary and secondary). In November of 2011, a "grexit" was publically declared as a possibility during a summit of G20 leaders, promoting further doubt in the stability of Greece. G20 stands for "Group of Twenty" and is a gathering that includes a representative from the ECB and European Council as well as finance ministers and central bank governors from France, Germany, Italy, and 16 other countries. That same month, George Andreas Papandreou resigned as the 11th Prime Minister of Greece, ending his two-year term. It was during his term that much of the deception about the budget deficit by the New Democracy party in previous terms was uncovered. Two days after Papandreou's resignation, Lucas Papademos was sworn in as the interim Prime Minister. The end of the year was accompanied by an initial discussion of steps to take towards fiscal integration of the Eurozone by European leaders on December 9th, the 20th anniversary of the Maastricht Treaty. There was also discussion on extension of loans to over 500 European banks by the European Central Bank in an attempt to prevent a credit freeze, making it the largest package of loans in ECB history.

The stability compact discussed in December of 2011 was finalized on January 30th of 2012 and was intended to impose fiscal discipline on member states that were in agreement. Of the 27 European Union members, 25 agreed to the compact, which was signed on March 2nd. All Eurozone countries (including Greece) were required to comply with fiscal unity, but others outside of the monetary union had the choice to do so. In February, Greece increased its austerity measures, opening the door to a bailout of € 130 billion from the "Troika" of the International Monetary Fund, the European Central Bank, and the European Union. The discussion of a "grexit" in 2011 resulted in massive withdrawals from Greek banks, €700 million on May 14th alone (Ray, 2015). Following still more spending cuts, the New Democracy party had a narrow victory on June 17th. In October, the European Union was awarded the Nobel Peace Prize due to its ability to transform "most of Europe from a continent of war to a continent of peace" (Ray, 2015). Although the avoidance of war was achieved, economic conflicts were not entirely avoided.

The most notable event in 2013 was the Eurozone's emergence from the recession with GDP growth of 0.3% in August. In the midst of such positive news of the road to recovery for the Eurozone, Greece continued fighting the existing austerity in the year 2014. An anti-austerity party, Coalition of the Radical Left (Syriza), rose to the top, followed by political riots due to the failure to elect a successor for Karolos Papoulias. In the midst of the unrest in Greece, the ECB pushed deposit rates down to -0.1%, effectively charging a fee on banks for holding reserves in an attempt to spur lending. This marked the first time a major central bank had done this. Rates were further cut in September to -0.2%.

2015 included a continuation of the political unrest that was prevalent in Greece, beginning with the election of Alexis Tsipras as Prime Minister, the leader of the Syriza party. His election was based on the promise of finding ways around the harsh austerity measures Greece was enduring. Despite his negotiations, Tsipras failed to extend Greece's loans in June, resulting in an official default of Greece's sovereign debt and a suspension of the Athens stock exchange on June 30th. Towards the middle of the year it became clear to many Greek citizens that Tsipras was unable to block austerity measures while maintaining Greece's position in the union, which resulted in even more protesting. In an attempt to involve the people, Tsipras held a controversial referendum in July as to whether Greece would accept the bailout terms provided by the Troika. Tsipras had urged Greeks to reject the terms in the referendum. Many believed a "no" vote would most definitely result in a "grexit", however when that "no" vote occurred, to many people's shock, Greece was not forced out of the Eurozone. A bailout package was agreed upon just a week later for €86 billion along with more austerity measures, despite the protests. The IMF then proceeded to criticize "the terms imposed by its Troika partners, stating that Greece's debt can only be made sustainable by enacting significant debt-relief measures" (Ray, 2015). In another attempt to put the people in control and discover their true desires, Tsipras held a snap election in September. This was yet another risky decision to make in a time of such instability, but the decision paid off for him as Tsipras was re-elected, claiming "victory of the people."

The situation in Greece will continue to evolve as Eurozone leaders meet routinely to discuss fiscal integration as well as further evaluate the causes of the crisis. It is important to note that Greece is not solely responsible for the severity of its crisis, although its role was the primary focus of this section. Part of the responsibility lies with the monetary union for its failure to police (detect and prevent fiscal policy issues before problems arise, such as extreme deficits, that would affect the monetary union), as well as with rating agencies that failed to detect trouble ensuing from Greece's decisions and therefore failed to protect investors. Every party involved in the debt crisis has a role in its creation and is affected by it and its repercussion.

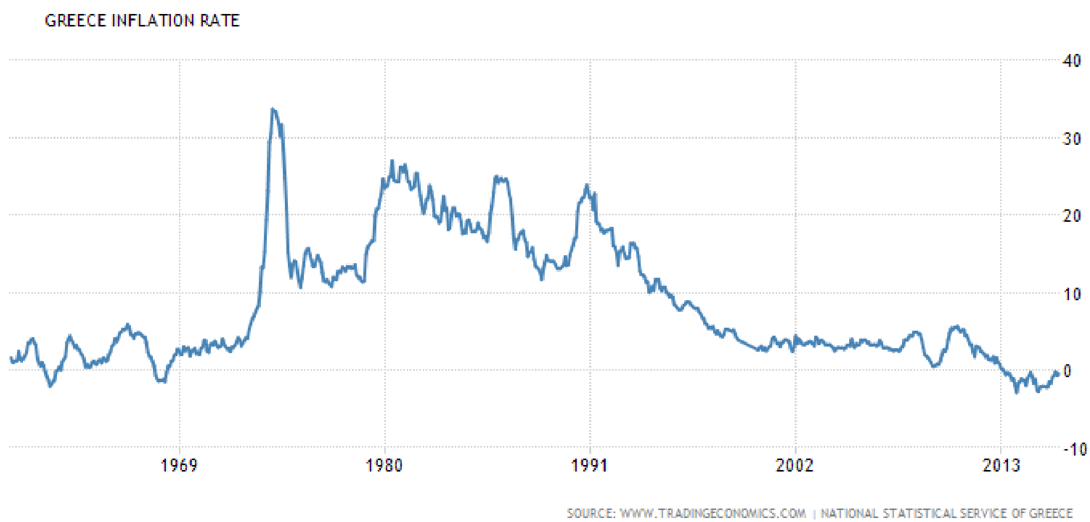

Figure 2. Greece's Inflation Rate from 1960 to 2016. Inflation has steadily decreased from 1991. Copyright 2016 by Trading Economics.

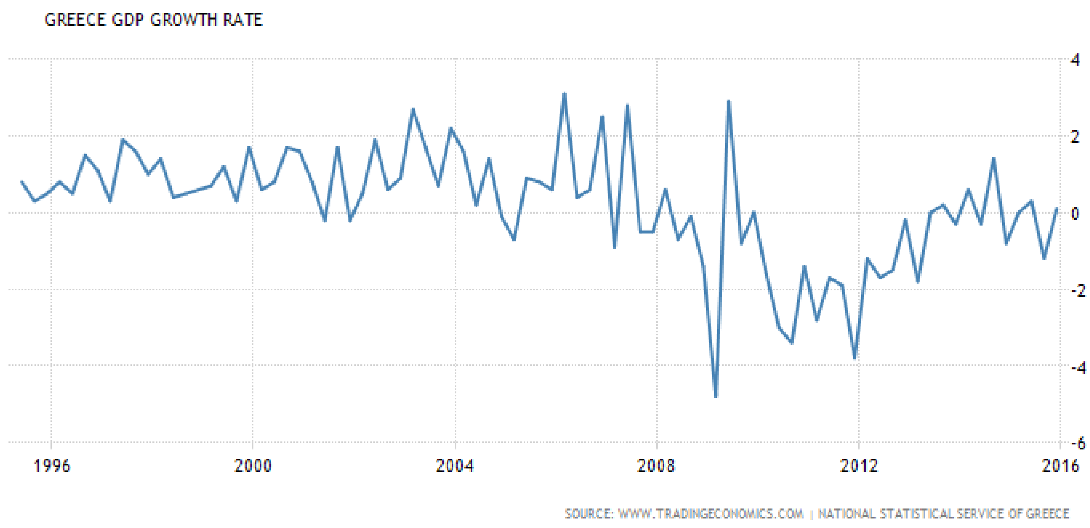

Figure 3. Greece's Gross Domestic Product from 1995 to 2015. A large drop and rebound occurred in 2009. Copyright 2016 by Trading Economics.

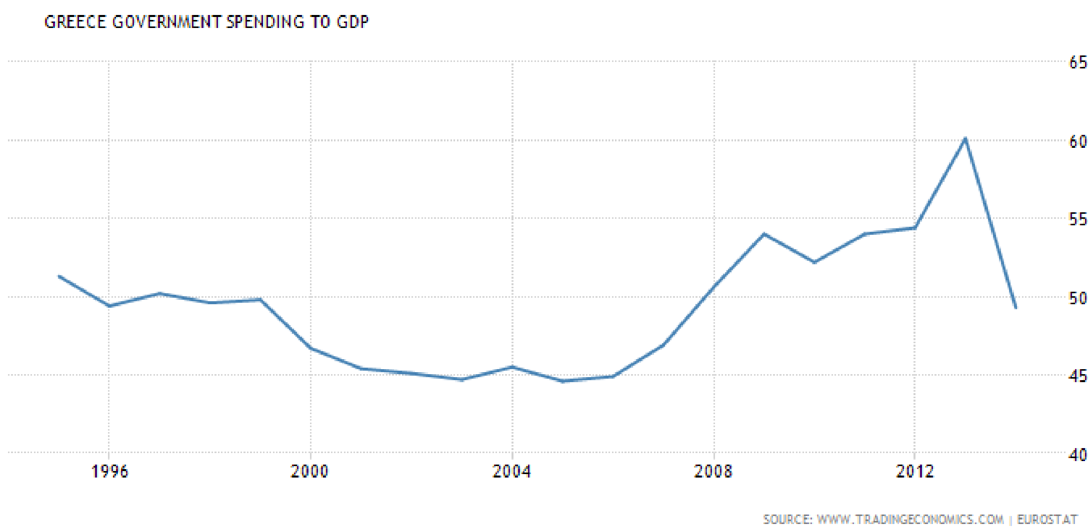

Figure 4. Greece's Government Spending to GDP from 1995 to 2014. In comparison, Germany's spending has not surpassed 48% of GDP since their admittance into the Eurozone. Copyright 2016 by Trading Economics.

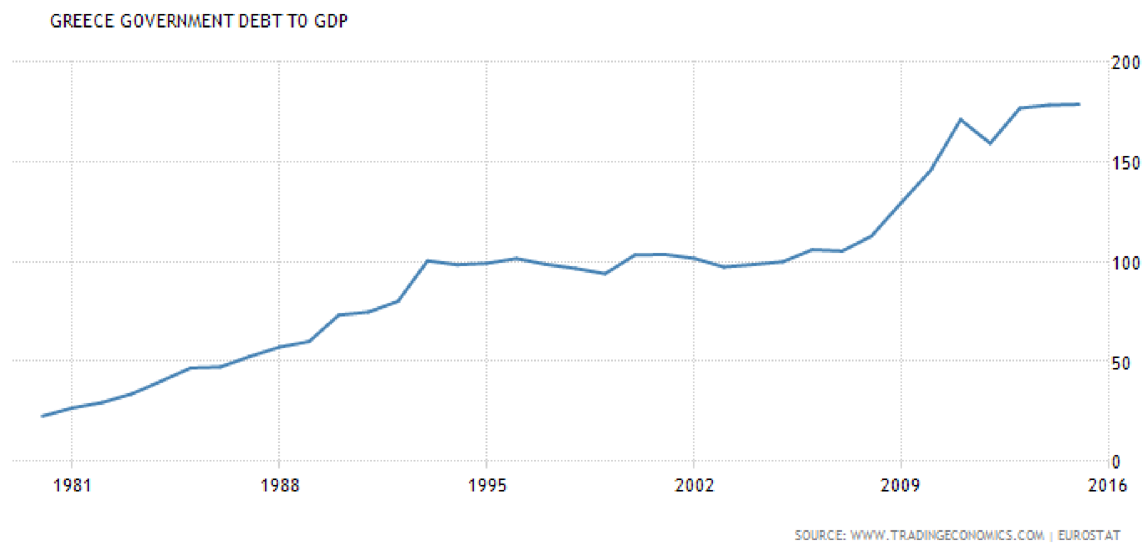

Figure 5. Greece's Government Debt to GDP from 1980 to 2015. There is a steady increase, with the exception of the years leading up to the admittance of Greece into the Eurozone until their falsified data was exposed in 2004. Copyright 2016 by Trading Economics.

Figure 6. Greece's Unemployment Rate from 1998 to 2015. Unemployment increased from the end of 2008 until 2014, where it began to gradually decline. Copyright 2016 by Trading Economics.

3. Greek Corruption

Corrupt financial practices by Greece's public sector were not unique to the crisis, but predated it. Corruption data has been available for over two decades and should have been an indicator of the financial state of Greece, warned creditors, and provided incentives for Greece to start in a new direction. However, corruption has only now led to the distrust of Greece by other countries and investors in the midst of the sovereign debt crisis. This distrust is corrosive when negotiating the terms of Greece's liabilities. Such a lack of faith in Greece's government stems from corrupt practices such as tax evasion and misreporting of financial ratios (debt and deficit to GDP ratios). For example, in 2010, 89.5% of total tax receipts in Greece were not collected, compared to the 2.3% not collected in Germany (O'Brien, 2015). Indicators like the Corruption Perception Index help to inform investors of these corrupt practices through a country's perceived corruption rating.

Corruption is defined as a "dishonest or illegal behavior, especially by powerful people" ("Merriam-Webster"). The Corruption Perceptions Index by Transparency International, hereby referred to as the CPI (not to be confused with the Consumer Price Index), is the most widely used public sector corruption measure in the world. By using both surveyed perceptions and economic and financial records for analysis, a variety of data are gathered to shield against the use of unreliable data that may have been corrupted. Perceptions, unlike past records which are provided by the government, are less influenced by a possibly corrupt public sector and when combined with the other data, can create a better picture of a country's economic condition. The uncovering of Greece's falsified financial data is a perfect example of tainted data reporting. Greece was able to disguise its massive amount of debt with help from Goldman Sachs, which assisted its admittance into the EMU (Wienberg, 2011).

The index is a collection of surveys and assessments based on data from the past 24 months to arrive at a rating. Data sources are "independent institutions specializing in governance and business climate analysis" and each country reported must have a minimum of three of these sources ("How corrupt is your country?"). Countries are ranked from zero (highly corrupt) to 100 (very little to no corruption), although they are often referred to using a scale from zero to ten. To put these numbers into perspective, in 2011, corruption scores were 3.4, 3.9, 8, and 9 for Greece, Italy, Germany, and Finland, respectively. This shows Greece as the most corrupt and Finland as the least within the group.

In order to standardize the scores of different sources, Transparency International uses a software package called STAT to impute scores for sources when the data is not available for a country. The credibility of this index was evaluated by the European Commission's Joint Research Centre in 2012 and they deemed the data to be sufficiently "robust" in the index's key assumptions regarding global parameters. The CPI was also found to have accurately taken significant country differences into consideration and have little redundancy (Saisana, 2012). Until corruption is addressed and eliminated around the globe, the Corruption Perceptions Index will continue to be an important indicator of countries' economic health and progress.

Research by Pankaj K. Jain, Emre Kuvvet, and Michael S. Pagano found that there was a nonlinear relationship, distinct from other variables such as downgrades or announcements, between corruption and foreign investment (Jain et at., 2014). Their research found that intermediate levels of corruption result in the greatest negative effect on foreign investment when controlling for other factors, a result consistent with our analysis discussed below. This proves to be especially relevant for Greece as they fall towards the middle of the Transparency International's CPI rating scale.

In yet another paper discussing the role of corruption in an economy, Carolina Achury, Christos Koulovatianos, and John Tsoukalas sought to address the impact of rent-seeking groups on sovereign interest rates with the included impact of corruption, through deriving the Markov-Nash Political Equilibrium. “Our model serves as a tool for demonstrating that corruption is a structural problem in a monetary union, needing to be treated as such a type of problem.” (Achury et al., 2011). The paper discussed how countries with high debt-to-GDP ratio are likely to fall into a high interest rate trap that cannot be fixed with monetary policy if under a monetary union. A high interest rate trap is where sufficiently high interest rates keep countries from being able to service their debt, resulting in the need to issue additional debt to finance it (perpetually increasing debt). This is where a bailout plan comes into play. A bailout attempts to stop the cycle by writing off a portion of the debt or lowering the lending rate to reduce the outstanding debt-to-GDP ratio. In countries where “rent seeking” is high (rent seekers are those who use another person’s resources for their own economic gain without benefiting society, such as special-interest groups lobbying to get government funding), there appears to be a large positive correlation between corruption and sovereign debt (debt-to-GDP). As a result of the reallocation of taxes (expropriation of public resources) to these rent seekers, the impatience for public goods and services increases with the misperception that taxes are going to social programs benefiting the public instead of to the rent seekers. In order to service these desires, the government issues more debt. Sufficient debt pushes interest rates up once more and leads the country into the high interest rate trap. The solution that the authors present is that when addressing a corrupt country, the goal should be to eliminate rent-seeking groups first. This is because when there are structural problems like tax evasion or rent seeking within a country, corruption seeps to the core of that country and can’t easily be swept away. Corruption has been linked statistically to increasing debt in other studies such as Chakrabarti and Zeaiter's examination of the effect of political risks on sovereign default (Chakrabarti & Zeaiter, 2014, pg 307). Their study showed that an increase in corruption was significantly positively correlated to an increase in sovereign debt, a result that is consistent with Jain et al.'s results as well as the case of Greece.

As can be seen from the literature on the subject, corruption and debt are intertwined and feed into one another. Corruption breeds economic instability and only leads a country further into debt. With Greece's CPI rating, everybody should have been aware of the structural problems that needed to be addressed far before its admittance into the Eurozone. Even investors have been responsible for continuing to lend to Greece, essentially helping it into its unsustainable debt levels. Investors, however, were often blind to the possibility of default, with their over-reliance on stronger European countries underwriting the debt or on the EMU imposing structural reform to prevent default.

To examine the relationship between corruption and interest rates, a regression was run between one-year interest rates and the Corruption Perceptions Index. The results are shown on the next page.

Table 1

Regression Analysis on the Effect Changes in CPI have on One-Year Interest Rates

Regression Statistics	
Multiple R	0.60414
R Square	0.36499
Adjusted R Square	0.31614
Standard Error	0.00951
Observations	15

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.00068	0.00068	7.47208	0.01707
Residual	13	0.00118	0.00009		
Total	14	0.00185			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.00166	0.00247	0.67282	0.51284	-0.00367	0.00700	-0.00367	0.00700
Changes in Greece's CPI Rank	-0.08283	0.03030	-2.73351	0.01707	-0.14830	-0.01737	-0.14830	-0.01737

The regression is a simplified event analysis, which shows a negative correlation between changes in the CPI and Greek interest rates. An event analysis addresses the days leading up to a certain event and the days following the event to find any differences that may be caused by the event. In this case, the event is the release of the CPI by Transparency International. As a result of the inconsistent release date of the CPI each year, little spuriousness has been assumed for the sake of a general analysis. The simple regression uses percentage changes in the CPI, calculated using the natural log of year t over year t-1 (prior year), against percent changes in the one-year interest rates. The ratings were provided by Transparency International and the interest rate data were provided by Bloomberg. Although this analysis fails to take many other variables into consideration, it supports previous research by finding a negative relationship between corruption ratings and investment.

In addition to the negative correlation found in our regression for Greece, it was also discovered that Germany and Italy have a negative relationship between the two variables, but it was not found to be statistically significant. Only Greece's negative correlation between corruption and one-year interest rates were determined statistically significant, as can be seen by the p-value of less than 0.05. This exhibits the same behavior as discussed by Jain et al. where Greece is neither the most corrupt country, nor the least, and changes in corruption have a significant effect (Jain et al., 2014). The spotlight Greece is currently in and the stakes it faces with a possible “grexit” place it in a unique situation among EMU countries.

If Greeks had taken charge to improve their reputation by correcting tax evasion and working against rent-seekers, they would have likely fared much better, especially with respect to negotiation processes. Instead, Greece backed itself into even more corrupt practices to cover up the trap they had fallen into. One example of this was discovered in July of 2003, when financial journalist Nick Dunbar revealed Goldman Sachs’ role in hiding Greece’s high government deficits, a violation of the Maastricht Treaty, through a series of swaps agreements (Dunbar, 2003). The disclosed debt arrangements with Goldman Sachs and continuous revisions of Greece’s existing derivatives contracts only further hurt Greece’s standing (Dunbar, 2012). Although the derivatives were complex, hiding financial conditions could have and should have been prevented. Greece was well aware of its corrupt standing and should have addressed the problem before entering a monetary union.

Part III: The Negligence of the Parties Involved

1. The Failure of the EMU to Prevent and Respond to the Debt Crisis

Although countries such as Germany appear to be picking up the pieces of the mess Greece has made, it, like the rest of the monetary union, are at least in part to blame for allowing reckless borrowing.

Koutsoukis (2014) argues:

> The lack of an EU-wide political union is a systemic fault that allowed nearly all of the EU economies to stray, more or less, from the Maastricht criteria- not only Greece. This important flaw which allows Greece and other weak economies of the Eurozone to become highly vulnerable to the markets and subsequently their international positioning until the EU institutions become aware to the problem(s) and react accordingly. (p. 30)

Even in an attempt to help Greece recover through a series of austerity measures and bailout packages, the Eurozone may have made the situation worse. The strain put on Greece's economy by the harsh austerity measures diminished growth and made long-term structural changes less achievable. Greeks often felt forced to choose whether to live in the economic distress caused by harsh austerity measures or be forced out of the Eurozone. This created even more international doubt in the stability of Greece. The constant blows to investor confidence further limited Greece's solvency. The International Monetary Fund acknowledged the mistake it and the rest of the Troika made of "underestimating how much the austerity measures it pushed would pinch the country's already faltering economy" (Olster, 2013). The IMF also admitted its failure in letting Greek debt remain high for so long. Although, according to the IMF, a success of the bailouts was the continued presence of Greece in the Eurozone and the prevention of the spread of the crisis. Despite creditors being partially responsible for Greece's condition, Greece was still responsible for its stalling of structural reforms (privatizations and tax reforms) that further worsened their economy.

Throughout bail-out negotiations, Germany has been on the forefront of the argument for increased austerity measures. Many have deemed the sentiment of Germany towards Greece as overly harsh. According to former Social Democratic foreign and finance ministers, Frank-Walter Steinmeier and Peer Steinbrück, Germany appeared to attempt to make the European Monetary Union resemble Germany, rather than work towards a "European Germany" (Young, 2011). The extent of the austerity measures was no longer the decision of the monetary union as a whole, but primarily Germany's standards enforced on others. Germany has such power due to its economic strength in relation to the monetary union and its primary role as a creditor. European leaders did respond to such doubts about the austerity measures by combining them with the restructuring of debt agreements.

The cultural clash between member countries during the course of the crisis also made a huge impact. German citizens, for example, were often "up in arms" about bailing out Greece as a result of its poor fiscal discipline. In contrast, Greece blamed attacks on bonds (due to drastic drops in credit ratings) and unrealistic austerity measures for their ailments. There also appeared to be fear on the part of France to challenge Germany on its positions, as "an open conflict with Germany could frighten the markets even more and thus endanger the euro" (Young, 2011). The coordination between France and Germany, although helpful for the larger countries, has prevented creative solutions and may ultimately hinder the fiscal unity of the entire EMU, and possibly force less stable countries out. The vision for political union seen 25 years ago does not hold true in the eyes of Germany any more. The generational gap from the World Wars has caused current leaders to be unaware of the devastation caused in the relationships between countries during those times that spurred the initial desire for unity. Without the impact of the wars resonating with this generation, it has become far easier for European leaders like Angela Merkel (Chancellor of Germany) to imagine a politically divided Europe. However, with such division a monetary union may not be sustainable. More economically powerful countries may decide it is better to band together without the suffering countries or the suffering countries may decide the standards imposed by the more powerful countries are too harsh to endure.

In his book *Boomerang*, Michael Lewis (2011) refers to the notion of a two-tier European Union as conceived by Wilhelm Nölling, a German politician and economics professor at Hamburg University. The first tier would be the countries with similar economic structures, such as Germany, Austria, the Netherlands, Finland, and France. The second tier, referred to as the "deadbeats", would be countries such as Greece, Portugal, Spain, and Italy. The irony is very clear with the European Union receiving the Nobel Peace Prize in 2012 for "advancing the causes of peace, reconciliation, democracy and human rights in Europe" yet political tensions have formed between the tiers over the course of the crisis ("European Union receives Nobel Peace Prize 2012", 2016). Despite democracy being emphasized in the award, Greece has struggled to have its own needs met (and voice heard) by the Eurozone leaders to the same level as other member countries, an example being its unemployment rates almost 15% above the European average and youth unemployment rates almost 28% above the average in 2014 ("Unemployment Statistics", 2015). With Spain in a similar situation, it isn't hard to argue that although the European Union works towards improvements, there are countries that are being left in its dust. A survey by Europa indicated "a majority in Greece, Austria, Slovenia, the

Netherlands and Sweden disagree that the (Nobel) award was the right choice" ("European Union receives Nobel Peace Prize 2012", 2016).

This can all be attributed to the inability of the European Monetary Union to prevent the crisis from developing and effectively respond to the distress caused by the debt crisis. Further, the EMU can be accused of being negligent in their monitoring of member countries to begin with. If the fiscal adherence to Maastricht treaty conditions by countries like Greece were to have been more strictly policed by the leaders of the EMU, the magnitude of debt accumulation and the repercussions may have been significantly reduced. As Mundell predicted, smaller countries like Greece would require budgetary discipline and likely fiscal unity. In response to criticisms of poor oversight, the EU has worked on reforms to significantly improve their governance. These reforms aim to "strengthen enforcement of the Stability and Growth Pact, introduce greater surveillance of national budgets by the European Commission, and establish an early warning mechanism that would prevent or correct macroeconomic imbalances within and between member states" (Nelson et al., 2011, p. 18) as well as spur further political integration of the EU.

2. Rating Agency Recklessness

The ease at which Greece borrowed was significantly increased with the high credit ratings associated with its admittance into the EMU. “We wanted to upgrade the country (Greece) on the belief that Greece was now part of the euro zone and that nobody was ever going to default and that everything was safe,” Sara Bertin, an economist working at Moody’s, said about the discussion to upgrade Greece in 2001 (Creswell & Graham, 2011). The debt levels were further supported by the seemingly misplaced optimism in Greece’s sovereign debt position by rating agencies until drastic downgrades were made further into the crisis. High credit ratings encouraged investment in the country and gave Greece more borrowing opportunities. Many of the rating agencies couldn’t imagine the EMU letting a member country reach the point of becoming a “deadbeat” (Creswell & Graham, 2011). Even after Greece’s misreported financials were recovered, ratings did not immediately change. A leader of Moody’s sovereign debt group during the time even commented on the knowledge of the generally inaccurate data produced by Greece (Creswell & Graham, 2011). With an existing understanding of the corruption, it is almost shocking that Greece was rated so highly until it was uncovered that the rating agencies were paid for their ratings to be issued. Without the ratings, Greece would have been unable to issue sovereign debt. Although the agencies insist on separation between the ratings process and business activities (being paid by the countries they rate), the negligence has brought forth the questioning of the authenticity of that statement.

The unexpected effect the ratings agencies had on the Greek economy as a result of their downgrades of Greece’s sovereign debt was a tremendous one. One reflection and determinant of confidence is how the debt of a country is rated. The three largest credit rating agencies are Standard & Poor’s, Moody’s, and Fitch, all of which can be accused of poorly performing their duties leading up to the crisis. Investors look to these agencies for reliable information on the quality and riskiness of debt. They, however, failed to do their due diligence and rated Greek debt much higher than deserved for an extended period of time. These agencies appeared to rely primarily on the concerns of political leaders for ratings forecasts rather than the economic data (Koutsoukis, 2014). Evidence of this is shown in the diminishing economic fundamentals in the years leading up to a public announcement of corrupt reporting of financials, but the rating agencies delayed revising their rating until the corruption was exposed or even after that, as was the case with Moody's. Until the beginning of the financial crisis, Moody's spent little attention on sovereign debt issues.

The European Union and European Central Bank asserted "S&P's April 2010 decision to downgrade Greece's debt to junk status weakened investor confidence, raised the cost of borrowing, and made a financial rescue package in May 2010 all but inevitable" ("The credit rating controversy", 2015). This also raises the concern of how informed the ratings agencies are staying with respect to perceived corruption. Ratings are determined through analyses of financial ratios, credit obligations, and political risks. Anything relevant to the confidence of investors in a security is meant to be included in the ratings process, however the unreliable ratings during the crisis, have caused the agencies to be questioned. Even Moody's new "methodology" for rating countries that was introduced in 2008, was "more of a checklist" without a deep empirical analysis, according to Sara Bertin, the lead analyst on Greece for Moody's until 2008 (Creswell & Graham, 2011). Greece's sovereign debt was rated as CC+ by S&P, Caa3 by Moody's, and CCC by Fitch in December of 2015 ("Greece | credit rating", 2015). The ratings correspond to being in default with little prospect for recovery. To add perspective, in 2002 Moody's and S&P rated Greek long-term government debt A+, with this investment grade rating continuing until 2009 (Milne, 2010). The drastic drops in credit ratings occurred primarily between 2009 and 2010. Moody's states that "the irrevocable breakdown in relations with external creditors" will only continue the poor creditworthiness of Greece and thus will be reflected by additional drops in ratings, such as the one on July 1st of last year ("Moody's downgrades Greece's government bond rating to Caa3; on review for further downgrade", 2015). The agencies cast doubt over whether the situation in Greece will ever improve and create concern regarding the toll yet to be taken on the creditors during the journey. These fears are likely to materialize in investor expectations of higher yet riskier returns.

This poor reporting ranges from mortgage back securities (specifically in the US) to the sovereign debt crisis. Sara Bertin noted the same issue of over-optimism that contributed to the subprime crisis; The rating agencies never conceived of these catastrophes as a possibility (Creswell & Graham, 2011). The proceeding downgrades of European sovereign debt were guilty of intensifying or accelerating the crisis. "When you get multiple ratings or large ratings downgrades, it is fair to say as a criticism that the ratings were too high in the first place. Looking back, that indicates that the assumptions being made in the past were too optimistic," said David H. Levey, co-head of Moody's sovereign debt group until 2004 (Creswell & Graham, 2011). In 2010 and 2011, the Dodd-Frank Act was passed and the European Securities and Markets Authority was created, respectively, both aiming to shield investors from similar negligence in the future. Despite these initiatives, many continue to fight against the immense influence these agencies have on investment decisions.

This is not to say that the investors should be relying solely on these ratings. "In a world in which Eurozone countries are increasingly seen as heterogeneous, investors need to understand not just budgetary and financial matters but even the internal politics of each nation"

(Milne,2010) in order to protect themselves, the responsibility to be well-informed also lies with the investor. Investors should be aware of the issues that exist in the country they are investing in, such as the corruption perception index and the massive spending and borrowing in Greece. Both the reckless investing on the part of investors and the misreporting of the ratings agencies contributed to the severity of the crisis.

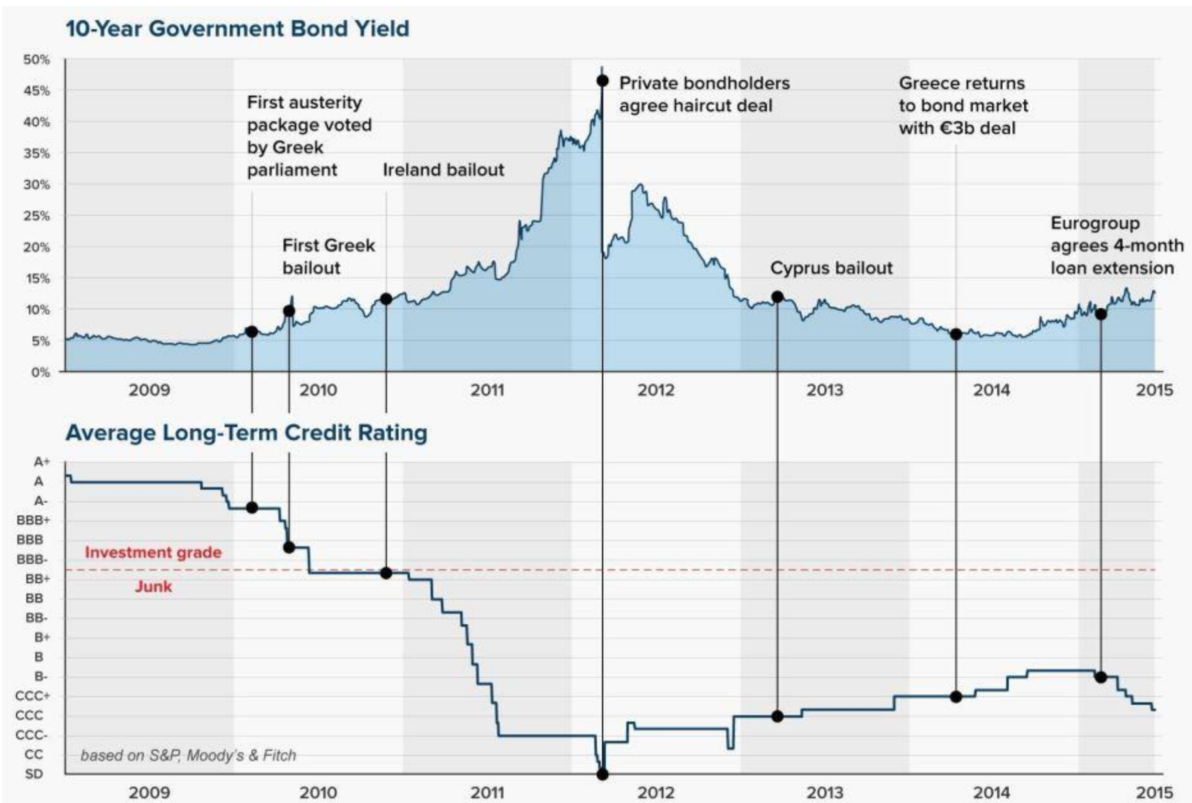

Figure 7. Greece's 10-Year Government Bond Yields alongside its Average Long-Term Credit Rating and the events corresponding to the changes. Copyright 2015 by Reuters.

Part IV: The Implications

1. If Greece Stays

As of a bailout achieved on July 13, 2015, Greece's continued membership in the Eurozone now appears far more likely. The Greek government committed to some of the difficult austerity measures of increasing value-added tax (a consumption tax), decreasing pensions, and increasing retirement age that were treated as tests by its Eurozone partners (Kirby, 2015). Even with Greece passing this test, that is not an indicator that future tests will have the same results. This is especially the case with the Syriza party still in power, which continues to promise lessened austerity and a return to Greece's previous standard of living. More than half of Greece's citizens still believe the euro is good for the country (see Figure 3), meaning they are willing to cooperate with the creditors and their austerity measures to maintain it. Figure 4 depicts some of the strongest Eurozone countries and their opinions on the retention of Greece, with a majority in Germany in favor of a "grexit." Such opposition will only make the monetary union harder to maintain.

Greece staying in the EMU would occur under two separate equilibria, according to Jeffrey Frankel (Frankel, 2015). Frankel addressed the situation in Greece through a game theory perspective. In order to have Greece stay in the European Monetary Union, Greece or Germany would have to give up some of its priorities, a "bad bargain" (someone would have to lose). The only other way to achieve a "good bargain" would be for Greece and its creditors to readjust their priorities. This would require creditors being more generous with their terms and Greece following through on the promised structural reforms, such as more serious tax reform and spending cuts.

If Greece were to continue to not fully commit to the structural changes proposed by European leaders, this could create increased political strife and discord within Greece. The radical left Syriza ran on the promise of decreasing austerity measures and although steps have been made towards reform, it has not changed its objective. The Eurozone will have to be very cautious in dealing with this government in order to not spark similar radical governments forming in countries like Spain. “This political contagion could be very damaging, leading to far worse risks than just Greece leaving the Euro” (Elliott, 2015). If austerity were to continue in the direction it has been, Greece’s growth will continue to suffer. “Austerity economics was always meant as a short, sharp shock, not a coherent economic policy” (Jenkins, 2015). Greece has suffered in the last few years and austerity economics does not seem like it will be ending for them in the short run. Even if austerity measures were to ease, the Eurozone must create a long-term solution that unites the extremely diverse group of countries in a sustainable way.

Another key issue is the continuation of what is referred to as the “Greek brain drain,” in which intelligent people migrate out of Greece to richer countries for better wages and lifestyles. The ease of migration between Eurozone countries and the common currency (not having to worry about exchanging one currency for another in a new location) facilitates the movement. There are about 180,000 Greek professionals that choose to work abroad, even more study abroad due to the instability of Greece (S.N., 2015). These professionals are young and talented, resulting in the remaining residents in Greece on average being older with less innovative capabilities. If prospects for Greece do not improve, the “brain drain” will continue as graduates and professionals seek out viable career opportunities elsewhere. Many of those still in Greece are working in jobs they are extremely overqualified for primarily due to the discouraging work environment (S.N., 2015). The same problem might be present if Greece were to separate, but with the prospect for growth, some of the entrepreneurial "brains" may return in hopes of helping the country restart. If this outflow of intellectual people to other European countries is to stop, Greece will have to work hard to improve its current intellectual prospects by encouraging entrepreneurialism and innovation in the business sector.

There are those who argue that if Greece were to have left the EMU in 2008, the recovery for Greece might have gone much smoother on the theory that growth would have been spurred as opposed to being hurt. This would be because in response to the economic distress, Greece would have the option to use monetary policy to stimulate the economy and not had to endure the admittedly overly harsh austerity measures. For the time being, the Chairman of the ECB, Mario Draghi, has made his stance very clear based on the ECB's duty "to act based on the assumption that Greece is and will be a member of the euro area" (Kirby, 2015).

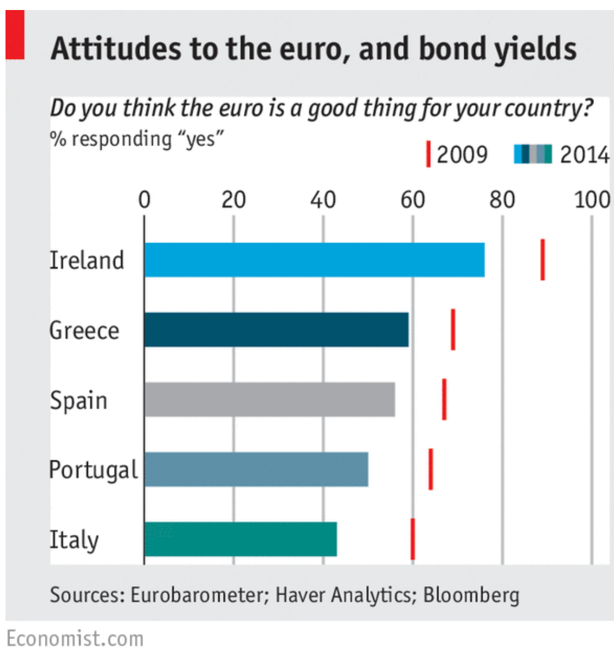

Figure 8. A survey conducted by some of the weaker countries within the Eurozone on whether they believed the euro was a good thing for their country. Although the percentage of those that agree it is beneficial has gone down, most (with the exception of Italy) remain over 50%. Copyright 2015 by the Economist.

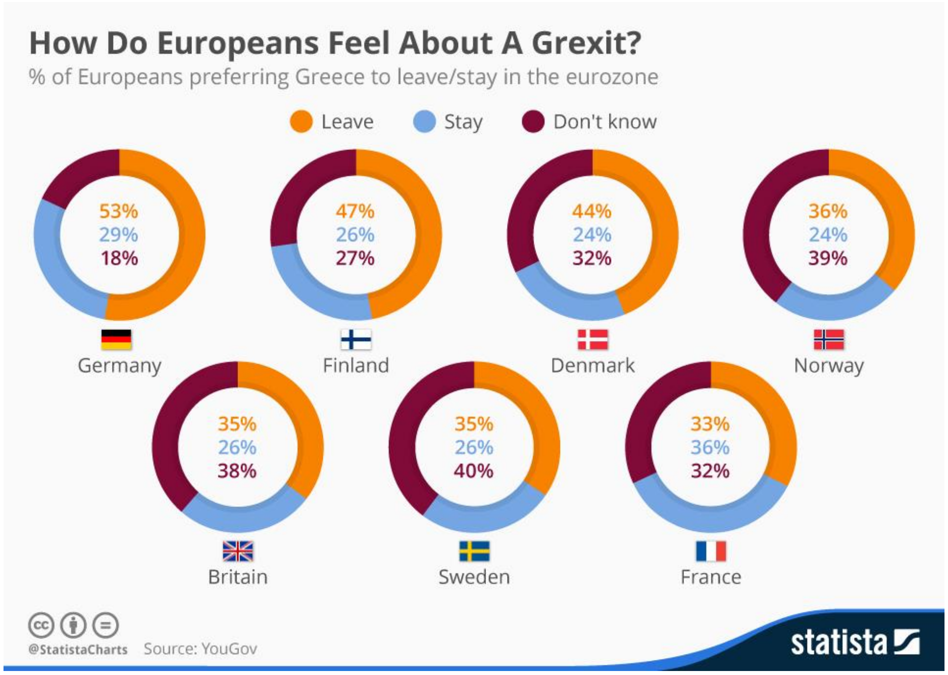

Figure 9. Survey conducted of economically stronger European countries on their opinions of a possible "grexit." The top number in each circle indicates the percentage of the population of that country that prefers if Greece stays, the middle is the percentage that prefers it leaves and the remainder do not know. A minority for each country believes Greece should remain. Copyright 2015 by Forbes.

2. If Greece Goes

Since no country has left the Eurozone so far, the process of a "grexit" and the consequences following cannot be predicted, but possible results can be considered. Frankel (2015) refers to a "grexit" as a consequence of a "non-cooperative equilibrium" where the sides are unable to reach an agreement. Although there are arguments that Greece would be able to reestablish a competitive position in the long run through structural changes and improvements in its business sector, the short run economic changes that would have to first take place will be painful for the Greeks.

If Greece were to separate from the Eurozone, it would have to either create a new currency or revert back to the drachma (more likely the latter). Greece's first action following a secession, would be the devaluation of its new currency. This would help it to refocus on exports in the global marketplace as a result of the high import prices. High import prices and relatively low purchasing power compared to the rest of the Eurozone would be a result of the weaker Greek currency. The drachma has been predicted to drop in value by 50% or more if adopted and monetary policy is increasingly used (D. Mchugh, Feb. 2015). Economists predict Greece's economy would contract 10% within the first year of leaving the Eurozone (D. Mchugh, Feb. 2015). There is an argument that the focus on domestic goods would strengthen the economy in terms of employment and GDP (Koutsoukis, 2014). However, it is important to note that living standards may fall as inflation increases. This inflation would likely result from increased spending to stimulate the economy (fiscal policy) or financing debt payments by printing money (monetary policy). A likely benefit of the weaker drachma would be a boost in the Greek tourist industry.

Until the currency for the monetarily independent Greece fully replaced the euro, there would most likely be large deposit withdrawals of euros to hold onto the stronger currency. To prevent the chaos large withdrawals would cause, the government would likely take similar actions to freeze accounts that it took in June of 2015 (Blackstone, 2015). Whether Greece would be able to borrow is disputed. There are historical cases where countries rising out of debt crises are able to borrow at favorable terms (Koutsoukis, 2014). There are also economists who believe there will be an adjustment period where borrowing will be greatly limited ("What Would Happen if Greece Quits the Euro?", 2015). This may result in a circulation of "IOU's," acting as an interim currency during the transition away from the euro.

In the business sector of Greece, the conversion process from euros to drachmas could prove to be chaotic. There would be legal disputes and businesses owing euro-denominated debt may be unable to pay their obligations, resulting in insolvency and bankruptcy. This would not only hurt Greece's economy, but any of Greece's business partners. As for the remaining countries in the Eurozone, government spending cuts may result from a fear of a similar loss in investor confidence, as mentioned later on, resulting in recessions once more ("What Would Happen if Greece Quits the Euro?", 2015).

On a larger scale, the "grexit" would affect the outlook on the monetary union as a whole. One possible result would be richer countries hesitating in the future towards lending to struggling member countries, which could lead to severe economic distress for those countries. In the United States, it is unlikely that the Federal government would fail to support a state in serious need. If the "grexit" occurs, however, countries like Germany may be willing to let other members suffer through it. Additionally, just as a moral hazard problem exists from third parties like Germany and the ECB backing Greece's debt leading to expectations about future support, an example may be set of the repercussions of poor fiscal discipline if Greece were to leave. The separation of countries, no matter their condition, results in further speculation over the fragility of the Eurozone. If Greece were to exit and do well, countries may consider following its footsteps if times become difficult in the monetary union due to asymmetric shocks. This is especially likely for countries such as Spain and Portugal that already have anti-austerity movements.

The other possible result is a more beneficial one for the Eurozone (though not for Greece), in which the monetary union thrives while Greece suffers, thereby showing the consequences of fiscal irresponsibility. This could act as a "lesson" for countries such as Italy and Spain, which have followed similar debt patterns. If fiscal discipline were to follow, it could further unify the remaining countries into a stronger monetary union. Another probable result would be that people in vulnerable Eurozone countries would move their money to safer countries like Germany to avoid similar hardships as Greece ("What Would Happen if Greece Quits the Euro?", 2015). As mentioned earlier, the responsibility for the crisis does not fall solely on Greece's financial negligence, but on its creditors as well for feeding into the debt. Countries such as Germany and France may experience large losses in investor confidence as a result of their inability to respect existing economic systems of weaker countries without enforcing their own ("What Would Happen if Greece Quits the Euro?", 2015), though some economists argue that the effects would be more political than financial (D. Mchugh, Feb. 2015).

Of course there is no way to know for certain the repercussions of a "grexit." The added possibility of Greece leaving not only the European Monetary Union, but the European Union increases the confusion. Although the ECB declared in 2009 that maintaining a position in the EU after leaving the EMU would be "legally impossible," if the EU wanted Greece's membership enough there would be measures taken to do so ("What Would Happen if Greece Quits the Euro?", 2015). The European Commission and the Eurogroup, an informal body of European leaders, have also assured their ability to handle the "fallout of a Grexit" (Saeedy, 2015):

> "The stability of the euro area is not in question," said Valdis Dombrovskis, Commissioner for the Euro, on Monday. "We have everything we need to manage the situation. We have a banking union to ensure the stability of the financial sector. We have [the European Stability Mechanism] to help the most vulnerable economies. The ECB is using its tools to ensure stability."

Regardless of whether Greece maintains it membership in the monetary union or not, the lessons learned by the sovereign debt crisis can be applied to future incidents inside the EMU as well as to other monetary unions. Although much of the blame has been placed on Greece for the crisis, there were others to blame such as the creditors and the ratings agencies. Each party will also feel the repercussions of this crisis in either scenario (whether Greece stays or goes). One recommendation for the Eurozone members is to focus more on a founding core principal of the monetary union: Unity (both political and fiscal). In the midst of all of the fiscal and cultural differences, the reason behind the EMU is often forgotten. As one of the trade centers of the world, European countries are at an advantage and could very well rival the dollar as a primary reserve currency in the future if the members work harder at coordination efforts. Every country felt the crisis, but also had to "pick up the bill" for Greece. The key here is that because each entity is a part of a monetary union, they now make up a body of interdependent economies and should treat economic policy and political relations as such. Even though Όλα καλά is not likely to be heard any time soon, if the European Monetary Union uses these past few years to guide future decisions and member countries work harder to structurally change (i.e. Greece working to address its corruption issues), maybe someday it will be.

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