UNIVERSIDAD SAN FRANCISCO DE QUITO

The Greek Debt: The Influence of Standard & Poor's Sovereign Debt Ratings on the European Central Bank Credit Policies

Nicole Chemali Miranda

Tesis de grado presentado como requisito para la obtención del título de Licenciatura en Relaciones Internacionales

Quito, mayo del 2012

Universidad San Francisco de Quito
Colegio de Artes Liberales

HOJA DE APROBACIÓN DE TESIS

The Greek Debt: The Influence of Standard & Poor's Sovereign Debt Ratings on the European Central Bank Credit Policies

Nicole Chemali Miranda

Daniel Montalvo, PhD
Director de la Tesis ……..

Juan Carlos Donoso, PhD
Miembro del Comité de Tesis ……...

Andrés Gonzalez, PhD
Miembro del Comité de Tesis ……

Carmen Fernández Salvador, PhD
Decana del Colegio de Artes Liberales …….

Acknowledgments

This dissertation would not have been possible without the help, support and guidance of the kind people around me, who, in one way or another, contributed with their valuable assistance in the preparation and completion of this study. Only some of whom it is possible to mention here.

Above all, I would like to thank my husband Pachi for all his patience and support at all times. Also, I want to thank my parents, parents in law and aunt Teté who, throughout my career and thesis, have given me their unequivocal support.

My utmost gratitude to my principal supervisor, Prof. Daniel Montalvo whose sincerity, support, guidance, patience and unsurpassed knowledge I would never forget. I owe my deepest gratitude to Prof. Carmen Fernandez Salvador and Prof. José Julio Cisneros who, since my entrance to USFQ have always supported and believed in me, it would not have been possible for me to finish my career without you. I am eternally grateful for your unselfish and unfailing support.

Dedication

To Chiara and Pachi

Resúmen

Este texto trata acerca del rol que tienen las agencias calificadoras de riesgos, específicamente la más antigua *Standard and Poor's*, en la cantidad de préstamos que aprueba el Banco Central Europeo (ECB), a Grecia, en tiempos de crisis. La crisis económica que se vive actualmente a nivel mundial, especialmente en Grecia, ha tenido un gran impacto en el cambio del rol que juega S&P en las decisiones que toma respecto a este país. Es decir, a pesar de que ha sido uno de los peores deudores del ECB y que actualmente tiene una calificación bastante baja por parte de S&P, continua siendo uno de los, sino el más grande, acreedor de préstamos. Adicionalmente, el ECB ha adquirido bonos soberanos del gobierno griego, aun cuando esto va en contra de su política interna. Estos no son hecho aislados, el nivel de integración y el hecho de que exista la Unión Europea al igual que la Unión Monetaria Europea, tiene una gran influencia la manera en la que se ha llevado a cabo la política monetaria por parte del Banco Central Europeo. Cuál es la influencia, si es que existe, de la calificación de deuda soberana de Grecia por parte de S&P en las decisiones que adquiere el Banco Central Europeo con respecto a la cantidad de bonos que otorga a dicho país, en épocas de crisis en la zona de la Unión Europea?

Abstract

What is the influence, if any, of the Greek sovereign debt rating by S&P, on the decision making of the ECB with respect to the loans issued in that country, in times of economic crisis? This paper analyses the evolution of the influence of Standard & Poor's (S&P) on the decision making of the European Central Bank (ECB) before and after the economic crisis within the Eurozone. It provides a different perspective of how S&P as well as the ECB are seen today in the international arena. Furthermore, it contains empirical evidence that supports the idea that there is no apparent relation between the sovereign debt rate and the loan granting and bonds purchasing of the European Central Bank to Greece, when there is an economic crisis within the Eurozone. The presence or absence of an economic crisis within the Eurozone is not the only variable that affects the outcome of this theory; due to this, there is a description of the different autonomous variables, like level of integration, Greece's GDP and Per Capita GDP, amongst others. This allows the reader to have a deeper understanding about the different areas involved in the model.

Content

Tables and Figures

Introduction

What is the influence, if any, of the Greek sovereign debt rating by Standard & Poor's (S&P), on the decision making of the European Central Bank (ECB) with respect to the loans issued in that country, in times of economic crisis? Ever since the beginning of S&P, its influence on the financial world has been undeniable. Before the member states of the Economic and Monetary Union (EMU)[1] of the European region experienced an economic crisis, all of their representatives have constantly complained about the ratings that each state has received, the time in which they were published and the way they handle the information to which they have access. Although, with an economic crisis, the Eurozone member states have still complained about the reports of S&P, the real effects of S&P on the decision making of the ECB had changed after the economic crisis. Greece became a member of the EMU in 2001, two years after its creation. Although there are numerous requisites to become part of the EMU, for Greece it was easy to become a member state. The most surprising fact is that even though "Greece was the worst fiscal sinner, having never complied with the Maastricht criteria; it was a major beneficiary of EU structural funds and farm subsidies, amounting to several percent of its GDP every year" (Aslund, 2010). This practice of continuing to lend Greece large amounts of money still exists today, even when they continue to be the worst fiscal sinners. This casts doubt on the actual influence that the sovereign rating of S&P has on the decisions made by the ECB towards Greece when there is an economic crisis within the Eurozone. Despite all this, Greece continues to be one of the greatest beneficiaries of the ECB loans mainly because if other EMU member states, especially Germany and France, keep on pressuring for Greece to exit from the EMU, this would imply a great loss for the entire European Union.

[1] The EMU has seventeen members, Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia and Spain, all of which depend on the monetary policy of the ECB.

"The most important type of transactions in the international economy – including trade, investment, and finance- all depend on the availability of money and credit" (Cohn, 2002). Greece could not have been able to increase their balance-of-payments deficit if it would not have been for the large amounts of credits that the ECB, together with other private banks, such as the International Monetary Fund (IMF), approved for Greece. Although most of the responsibility relies on the Greek government due to the way they managed their funds, there is also shared responsibility because the ECB, as well as the other creditors, did not take enough time to evaluate the real economic position of Greece. Furthermore, the economic crisis of the United States also influenced, mainly the sub-prime crisis in the country, which also affected the European economy as a result of globalization. "Liberal interdependence theorists assert that this market increase on international financial transactions has resulted largely from advances in communications, technology, and transportation and that nation-states are therefore finding it increasingly difficult to regulate economic activities" (Cohn, 2002). Therefore, it might be due to an increase of technological advances that creditors have not taken the time to carefully evaluate Greece's economy. An increase in Greece's debt inevitably means that, sooner or later, Greek citizens have to pay, whether through taxes or through a radical decrease of government expenditure. Due to the wide complaints against S&P, is it only S&P's fault that Greece fell into a billionaire balance of payments deficit? The globalized world in which we live today makes it impossible for the responsibility of a crisis to be blamed on a single actor, be it a state or non state actor. Since the world is interconnected, the consequences of bad decisions cannot be isolated in a single region, as in earlier times. Having an interrelated world has made it possible to develop new theories that help understand various facts and situations that are constantly taking place. One of the theories that were born under this concept in International Relations (IR)

is liberalism, deeply promoted by Andrew Moravcsik, which focuses on the inevitable influence of private groups in states' foreign policy and general decisions. The theory proposed in this paper states that integration, as well as globalization, play a key role when the ECB takes any decision that involves Greece. Furthermore, I argue that in times of deep economic crisis, S&P ratings are less useful as a basis for decision making processes of supra-national lenders, especially in a context where failing to confer bailouts could mean the collapse of the EMU, as well as of the entire European Union.

This paper consists in six parts. Part one is the introduction. In part two, literature revision, contains a background guide of S&P, how it works and what they do. This section also develops an explanation from the liberal perspective of the importance and the role of private groups in the foreign policies of states and/or institutions that represent these. Additionally, it contains general information about the ECB and its role in the Eurozone. To finish this section, there is a general description of the use of the term crisis and its relevance in the subject being discussed. The third part contains a thorough description of the theory proposed in this paper. Part four, data and methods, describes the variables and methods to be used in order to support the proposed theory. Part five explores the expected results based on the previous sections. Finally, part six contains the conclusions of this paper.

Literature Revision

Understanding Standard and Poor's

There are different rating agencies in the financial world; one of the most important and a globally recognized agency is Standard and Poor's (S&P). It was created in the 1830's with the rise of private capital markets in the US, with the main objective of becoming an independent

third party group that provided essential financial information for investors in the US railroad industry, the main industry at the time. Today, S&P "strives to provide investors who want to make better informed investment decisions with market intelligence in the form of credit ratings, indices, investment research and risk evaluations and solutions" ("About Us," 2012). One of its main jobs is to provide ratings of different financial divisions, which include corporations (industrial and of utilities), financial institutions, fund ratings, insurance, governments, and structured finance. "A credit rating is S&P opinion on the general creditworthiness of an obligor, or the creditworthiness of an obligor with respect to a particular debt security or other financial obligation. Over the years credit ratings have achieved wide investor acceptance as convenient tools for differentiating credit quality" ("Browse Ratings by Practice," 2012). Within the government division, there is a sovereign rating which contains three different aspects: local currency rating; foreign currency rating; and, Transfer & Convertibility Assessment. Together, they build a big picture of the financial situation of each government so that investors can understand the risk of investing in a specific country. The "sovereign rating methodology addresses the factors that affect a sovereign government's willingness and ability to service its debt on time and in full. The analysis focuses on a sovereign's performance over past economic and political cycles, as well as factors that indicate greater or lesser fiscal and monetary flexibility over the course of future economic cycles" ("Sovereign government rating:," 2011). The five key factors that form the foundation of the sovereign credit analysis are institutional effectiveness and political risk, economic structure and growth prospects, external liquidity and international investment position, fiscal performance and flexibility, and monetary flexibility ("Sovereign government rating:," 2011). The ratings are based on letters; each meaning of the

credit rating is summarized in the table below, obtained from the S&P Credit Rating Definitions & FAQs:

Table 1: Sovereign debt rate definitions

Investment Grade	**'AAA'**	Extremely strong capacity to meet financial commitments. Highest Rating.
	'AA'	Very strong capacity to meet financial commitments.
	'A'	Strong capacity to meet financial commitments but somewhat susceptible to adverse economic conditions and changes in circumstances.
	'BBB'	Adequate capacity to meet financial commitments, but more subject to adverse economic conditions.
	'BBB-'	Considered lowest investment grade by market participants.
Speculative Grade	**'BB+'**	Considered highest speculative grade by market participants.
	'BB'	Less vulnerable in the near-term but faces major ongoing uncertainties to adverse business, financial and economic conditions.
	'B'	More vulnerable to adverse business, financial and economic conditions but currently has the capacity to meet financial commitments.
	'CCC'	Currently vulnerable and dependent on favorable business, financial and economic conditions to meet financial commitments.
	'CC'	Currently highly vulnerable.
	'C'	A bankruptcy petition has been filed or similar action taken, but payments of financial commitments are continued.
	'D'	Payment default on financial commitments.

Note: Ratings from 'AA' to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

Ratings Outlook

A Standard & Poor's rating outlook assesses the potential direction of a long-term credit rating over the intermediate term (typically six months to two years). In determining a rating outlook, consideration is given to any changes in the economic and/or fundamental business conditions. An outlook is not necessarily a precursor of a rating change or future CreditWatch action.

Positive means that a rating may be raised.
Negative means that a rating may be lowered.
Stable means that a rating is not likely to change.
Developing means a rating may be raised or lowered.
N.M. means not meaningful.
CreditWatch
CreditWatch highlights our opinion regarding the potential direction of a rating.

Positive means that a rating may be raised.
Negative means that a rating may be lowered.
Developing means that a rating may be raised, lowered or affirmed.
CreditWatch is not intended to include all ratings under review, and rating changes may occur without the ratings having first appeared on CreditWatch.

An additional rating not included in the chart above is SD- Standard Default:

> **SD and D** - An obligor rated 'SD' (Selective Default) or 'D' has failed to pay one or more of its financial obligations (rated or unrated) when it became due. A 'D' rating is assigned when Standard & Poor's believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they become due. An 'SD' rating is assigned when Standard & Poor's believes that the obligor has selectively defaulted on a specific issue or class of obligations but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. Please see Standard & Poor's issue credit ratings for a more detailed description of the effects of a default on specific issues or classes of obligations ("Standard and Poor's Definitions," 2010).

In order to warn a possible rating change or to notify of an actual change, S&P posts it in the S&P Credit Watch List. Companies are added to the list when S&P believes "a rating change is likely, with additions designated as 'indicated upgrades' or 'indicated downgrades', or

'developing' if a rating change of unknown direction is likely. As a result, a rating change announcement may occur after a firm's debt is placed on Credit Watch List, or it may occur without being preceded by a Credit Watch designation" (Halt, Holthausen & Leftwich, 1992).

According to numerous authors, rating agencies like S&P play a key role and are one of the most influential actors when it comes to sovereign rates. Like Fabian Linder reveals in his article, "Rating Agencies do not merely express their private opinion in the same way as the newspaper commentators. Their opinion automatically has consequences for the predicted event. Insurers, pension funds and banks are obliged by law to sell their bonds if their rating is no longer high enough. This can lead to a self-fulfilling prophecy: the rise in interest rates caused by the sale of bonds increases the likelihood of a nation going bankrupt" (2012). In other words, due to the close relation between sovereign and bond rating, the ratings provided by S&P and their timing do influence the market, especially when it comes to sovereign rates as it can lead a country to bankruptcy due to a decrease in the interest rate, in the demand, and an increase of the supply sovereign bonds increases, making these less attractive to the public and generating economic problems inside the country due to the negative effect of the bond's price.

As much as the sovereign rating methodology appears to be very specific and to include all areas related to the financing area, the ratings of S&P have been highly criticized within the Eurozone, especially after the crisis started, due to the mentioned effects of a change in sovereign rating. Representatives of the European countries, and even more commonly Europe's central bankers, have publicly demonstrated their discomfort. "Christian Noyer, president of the Banque de France, accused the rating agency of giving more weight to political than economic factor, and 'once again' getting its timing wrong" (Peel, 2011). Furthermore, according to Linder, "Rating agencies are partly to blame for the aggravation of the Euro crisis. So far,

politicians have done little to stop agencies from adding fuel to the fire of the Euro crisis" (Linder, 2012). Critics also rise because, as Hand, Holthausen and Leftwich state in their text, the effects on the price of a bond and on sovereign debt are higher with a downgrade than with an upgrade (1992). "According to a new study by the ECB, Greece's downgrade not only led to a worsening of the financial situation in Greece, but also to the crisis spreading to other Eurozone countries" (Linder, 2012).

The influence of private groups in the international arena

In IR, each theory has a different approach regarding its main actors. For liberalism the main actors of world politics are the society and interest groups. As Moravcsik states, "liberal theory rests on a 'bottom-up' view of politics in which the demands of individuals and societal groups are treated as analytically prior to politics" (Moravcsik, 1997). On the other hand, it is important to consider that foreign policy has a great impact not only inside a state, but also within the neighboring countries; that is, the region in which it is located and the rest of the states that maintain a relation with the state. The globalized world in which world politics develops today has become more interdependent than two or three decades before. This means that the decisions made today have a greater impact on other states. This situation becomes more evident in an integrated region like the EMU since the use of a common currency and the fact that member states depend on the ECB for monetary policy, means that a decision for one country immediately affects the other member states. This is why, as proposed in this paper, the regional integration of the EMU does influence the decisions taken by the ECB towards Greece. As a result, unity and cooperation among states make every state stronger than if it would act alone (Doyle, 1995). These are the main premises that help understand the way in which state preferences influence the external behavior of states in an interdependent world: societal actors

are the main actors and the interdependent world influences their preferences and, therefore, the states external behavior.

State preferences "comprise a set of fundamental interests defined across 'states of the world'" and are "independent of the strategies of other actors" as well as "prior to specific interstate political interactions" (Moravcsik, 1997). In other words, the preferences of the inside state actors and how they, depending on their social, political and economic position, influence the decision makers regarding foreign policy. "State priorities and policies are determined by politicians at the head of the national government, who are embedded in domestic and transnational civil society, which decisively constrains their identities and purposes" (Moravcsik, 1993). This is possible because liberalism places a great importance on the freedom of the individual. Freedom can be negative, which includes freedom of conscience, press, speech, property, among others; positive, which includes social and economic rights; or democratic, meaning democratic representation and participation (Doyle, 1995). It is also important to consider that "the identity, interests, and influence of groups vary across time, place and, especially, issue-area, according to the net expected costs and benefits of potential foreign policies" (Moravcsik, 1993). This perspective is also supported by Finnemore, who establishes in her text, that a complete analysis of the influence of individuals needs to include the cultural environment in which individuals are located, since this would help determine what they fight for and what they do not. "Europe, historically the most divided and war torn of continents, is at one and the same time uniting and pacifying as a whole (at the international level) and dissolving and destroying in some parts (at the domestic level)" (Doyle, 1995). In this sense, due to high importance of integrity and the role that this element plays in the EU, most of the decisions that member states support seek to prevail, above everything else, the integration of the EU.

Liberalism considers context as a basic aspect of politics. The main importance of considering context is that while realism as well as other theories only focuses on states behavior, facts show that individuals are the ones who have a great influence on state and private policies; therefore, the interests that lie beyond states do in fact matter. Due to this, the presence or absence of an economic crisis does influence the actions of states, like it is stated in the theory proposed in this paper. Societal and private actors can influence through different ways. The first one is by bargaining with the congress representatives, or its equivalent in each country. The second one is by lobbying with influential strategic actors. In the case of the EU, this takes place when Greek private groups negotiate with representatives of Germany and France, the most influential states of the EU, so that they do not continue to promote the exit of Greece from the EMU because of their economic crisis. A third way is through public campaigns that, in the end, force decision makers to adopt a law in a determined matter do to the great influence of the campaigns. Finally, societal actors can be influential through non-governmental organizations that have a wider scope of action and can promote and pressure inside government actors to act one way or another. A clear example of this situation is when S&P publishes the sovereign debt ratings and governments and/or its representatives, such as the ECB, react to these by approving or not loans to a specific country. Still, this behavior remains constant only when there is not an economic crisis within the Eurozone. The beauty of the mentioned ways of how societal actors influence the external behavior of states is that the decisions adopted by member states, that is, their foreign policy, would not only have an effect inside the state but it would also reach other states within and outside the region in which they are located. In other words there is an interdependent policy, defined as “the set of costs and benefits created for foreign societies when dominant social groups in a society seek to realize their preferences, that is, the pattern of

transnational externalities resulting from attempts to pursue national distinctive purposes" (Moravcsik, 1997). There are different ways in which societal actors influence the behavior of states and, due to the interdependent world of today, these decisions have a national, as well as international, impact. Andrew Moravcsik has helped understanding the importance of liberalism in today's IR field. For this, he established three core assumptions, all based on "Liberal IR theory's fundamental premise- that the relationship between states and the surrounding domestic and transnational society in which they are embedded critically shapes state behavior by influencing the social purposes underlying states preferences" (Moravcsik, 1997).

The first core assumption states that "The fundamental actors in international politics are individuals and private groups, who are on average rational and risk-averse and who organize exchange and collective action to promote differentiated interests under constraints imposed by material scarcity, conflicting values, and variations in societal influence" (Moravcsik, 1997). This first premise can be confirmed through the influence that S&P sovereign debt rate has proven to have over the ECB decisions in times when there is no economic crisis. Liberalism focuses on the importance of the demands of individuals and society groups when defining foreign policy. It is due to the scarcity of goods and differentiation that actors are motivated to bargain in order to obtain as much benefits as possible (Moravcsik, 1997). In fact, this is the perspective under which Greece worked before its crisis, and it is why they entered into a crisis in first place. In other words, their high debts that seek to obtain as many benefits as possible caused an increase in the deficit of balance of payments. In general, liberalism theory "seeks to generalize about the social conditions under which the behavior of self interested actors converges toward cooperation or conflict" (Moravcsik, 1997). There are three main factors considered by liberalism that contribute to the development of a conflict. The first one refers to

divergent fundamental beliefs about the provision of public goods; the second one refers to conflict over scarce material goods (it motivates actors to assume cost and risk to obtain them); and, finally, social power, since some inequalities of societal influences can be greater in one society than in another (Moravcsik, 1997). Today, the member states of the EU, especially Germany and France, have cooperated often, rather than creating conflicts, because social implications that would derive from a separation of Greece would be greater than the ones they are currently paying as a result of granting elevated loans to highly indebted countries, like Greece. Moravcsik addresses the importance of considering the "increasing prominence of non state actors such as multinational corporations, non-governmental organizations, and international institutions, globalization has…raised the importance of the neoliberal paradigm" (Milner & Moravcsik, 2009).

The second assumption states that "States (or other political institutions) represent some subset of domestic society, on the basis of whose interests state officials define state preferences and act purposively in world politics" (Moravcsik, 1997). According to the liberal theory, the state is a representative institution subject to capture and recapture, construct and reconstruct the coalitions of societal actors (Moravcsik, 1997). In other words, it acts as a transmission belt in which "preferences and social power of individuals and groups are translated into state policy" (Moravcsik, 1997). This is evident in the case of the EMU since due to the interest of most individuals (less Germans and French since they are paying the highest costs of the Eurozone crisis) the ECB keeps on approving high loans for Greece in order to maintain the integration within the region. As it is natural, governments cannot represent all individuals but, which explains why there are some privileged actors depending on the government in charge. Still,

there are always some elements that keep constant through time, like maintaining the EMU in the case of the EU member states.

The last assumption affirms that "The configuration of interdependent state preferences determines state behavior" (Moravcsik, 1997). There are 3 different scenarios for this assumption. The first one takes place when preferences are compatible, the cases in which incentives coexist with low conflict. The second one is the opposite, when state preferences are zero-sum and tension, as well as the possibility for conflict, increases. In this case, "the utility of threat…depends more on the intensity and the balance of the interests involve, as well as upon the ability to shift the blame for missing the 'last clear chance' before a dangerous escalation, than upon military capabilities" (Kratochwil, 1992). The last one is when there are mixed motives, the cases in which states have an incentive to negotiate policy coordination. In this case, it is also important to consider that "within each qualitative category, incentives vary further according to the intensity of preferences" (Moravcsik, 1997). Before the Eurozone crisis, states in this region were placed in the first scenario. Nonetheless, after they discovered the real economic situation of Greece and how it was (and would continue) affecting all the other member states, they shifted to the last scenario. Although Germany and France want Greece out of the EMU, there are mixed motives and preferences that have stopped these states from actually pursuing a real exit of Greece from the EMU.

Today, the decisions and actions of states impact the ones made by the other states, and vice versa. The best example is the EU, were any decision of one state would influence the other member states. From where do these foreign policies of state arise? Here, the inevitable and significant influence of individuals and other non state actors like rating agencies arise. The first important fact to consider is that individuals are the ones who represent states; therefore, they are

the ones who decide foreign policy and implement it. Since they are humans, they are not perfect and can be influenced by pressures from different sides. Due to this, the influence of the non-state actors increases. Inside each state there are various groups that pursue different interests. Due to the important role that specific interests play in individuals as well as multinational corporations, NGO's and rating agencies, they each seek a channel to affect the decisions that regard their interests. "Domestic structures are likely to determine both the availability of channels for transnational actors into the political systems and the requirements for 'winning coalitions' to change policies… the more fragmented the state and the better organized civil society, the easier should be the access for transnational actors" (Risse-Kapen, 1995). The amount of influence that a determined private group or individual has would determine whether it would or would not influence the external behavior of states, like rating agencies in the case of the ECB. When there is not an economic crisis, the decisions of the ECB would be influenced by the sovereign debt rates from S&P. Nonetheless, the opposite would happen in the absence of an economic crisis within the Eurozone. An important variable that affects the interests of domestic societal groups is that due to technology, actors within different states are able to interconnect and be able to put more pressure inside states if, on another country, they are pursing the same objectives. Therefore, through the use of technology, rating agencies are able to publish their rates and reach more individuals and companies than before. This way, they have a greater impact on national preference formation, the configuration of state preferences, interstate negotiations and outcomes. "The most fundamental influences on foreign policy are, therefore, the identity of important societal groups, the nature of their interests, and their relative influence on domestic policy. Groups that stand to gain and loose a great deal per capita tend to be the most influential" (Moravcsik, 1993).

The European Central Bank

The European Central Bank came into being on 1 June 1998 and it became the "captain" of the Eurosystem team "– the central banking system of the euro area – (and it) has been conducting monetary policy for the countries in the currency union. The monetary policy "influences the economy through changes in the money supply" (Cohn, 2002). Its mission, "We at the European Central Bank are committed to performing all central bank tasks entrusted to us effectively. In so doing, we strive for the highest level of integrity, competence, efficiency and transparency", reveals the importance of the ECB within the Eurozone ("The mission of," 2012). Its primary objective is price stability over the medium term, because stable prices form the basis for sustainable economic growth and prosperity in Europe" ("The first ten years," 2012). It also has the "sole power to authorize the issue of euro banknotes… Member States may issue coins but the ECB must first authorize the annual amount to be issued" ("Third Stage of," 2011). Therefore, it has a monopoly of the money supply within the Member States of the Economic and Monetary Union (EMU).

The 17 members of the EMU depend on the ECB monetary policies in concordance with the National Central Banks of each Member State. National Central Banks are responsible for enacting the monetary policy across the Eurozone on *behalf* of the ECB, through liquidity provision (granting loans) and other tools (such as holding reserves from national banking sectors) (Ruparel & Persson 2011). Due to this economic dependence, Greece is not able to take any monetary policy as part of a plan to solve their crisis, only fiscal policy can be modified internally through interest rates and expenditure, all based on the Maastricht criteria or the Stability and Growth Pact. The fiscal policy "affects the economy through changes in government spending and/or taxes. Then a government uses fiscal policy to deal with a balance-

of-payments- deficit, it lowers government expenditures and/or raises taxes to withdraw purchasing power from the public" (Cohn, 2011). In fact, the plan of recovery for Greece has a major focus on decreasing government expenditure, by decreasing the amount of social benefits in education, unemployed individuals, amongst other areas and taxation increase. In 2010, the first measure adopted in this matter by Greece was "a rise in the top rate of value-added tax, from 19% to 21%, more increases in excise tax on fuel, tobacco and alcohol, a freeze on pensions and an unprecedented 30% cut in civil servants' Christmas, Easter and summer bonuses" ("Now comes the pain," 2010). In 2011 these types of fiscal policies continued to be modified with the main objective of decreasing the fiscal deficit gap. As a complement, the ECB has developed different economic adjustment programs. The Second Economic Adjustment Program for Greece proposed by the ECB and established in March 2012 seeks to put "Greece's public debt ratio on a downward path below 117% of GDP by 2020. The program will be accompanied by strengthened monitoring of the implementation of reforms in Greece" ("Investor Presentation," 2012). Furthermore, the ECB has taken the two most important actions to help Greece: loan lending and purchase of sovereign bonds.

Table 2: Holders of Greek Government Bonds and Debt, in billion EUR

Greek banks	56
Other European Banks	50
ECB (direct holdings, nominal value)	50
Central Bank of Greece	10
Greek social securities/other government	30
Other investors	120
Total Government Bonds	260
+ EU/IMF loans already disbursed	53
Total Debt	310

Source: BIS
Retrieved from: "Who owns Greek Debt"

According to the chart provided above, by 31 March 2011 the ECB owned 33.22% of the total Greek debt. Still, this relation has increased in the past year due to the increase of loans and purchase of Greek sovereign bonds2. Consequently, if a country defaults they will not be able to pay back all the money they owe creditors, amongst them the ECB; "despite this worrying exposure, the ECB continues to accept various assets as collateral from banks in return for giving these banks very cheap loans" (Ruparel & Persson 2011).

Looking Back to the Crisis in the Eurozone

According to the "Key Dates of the Financial Crisis" of the ECB, the crisis dates back to 2005 when the "ECB warns that financial imbalances are growing and look likely to continue, mainly at global level, but also in the euro area". Despite of the warning, the market did not take any preventive measures and kept with old financial end economic practices. The crisis in the United States did not have a reaction as profound as in other regions in Europe. None the less, it did set a precedent for the finance market to tumble. In October 2009, George Papandreou corrected the data of the economic situation of Greece and revealed that they had a budget deficit of 13.6% of GDP in 2009 and that its public debt was 115% of GDP (Aslund, 2010). "A first disclosure of the much larger budget deficit unleashed the crisis, and a second downward revision of the budget deficit in April 2010 eliminated all the market confidence" within the Eurozone (Aslund, 2010). Instead of acting immediately, the EMU governments delayed the crisis treatment from February to May 2010, when financial markets exploded "the actors were

2 The data for this period is not currently available.

the Eurozone countries and the ECB rather than the European Union as a whole. Their policy line made little sense" (Aslund, 2010).

According to the Investopedia dictionary, the European Sovereign Debt Crisis can be defined as a "period of time in which several European countries faced the collapse of financial institutions, high government debt and rapidly rising bond yield spreads in government securities. The European sovereign debt crisis started in 2008, with the collapse of Iceland's banking system, and spread primarily to Greece, Ireland and Portugal during 2009. The debt crisis led to a crisis of confidence for European businesses and economies". As a response to this crisis, the term PIIGS was born to refer to the Eurozone nations which were considered weaker economically following the financial crisis. It is composed by Portugal, Italy, Ireland, Greece and Spain (PIIGS, 2012). The crisis in the Eurozone was somehow predictable if the finance and economic market would have responded accurately and on time.

The president of the ECB in 1998, Wim Duisenberg, stated that, *"There is no central bank in the world that is as independent from politics as the European Central Bank"*, idea shared by all of the former and current ECB presidents (Ruparel & Persson, 2011). But, considering the recent actions of the ECB towards Greece and that there is an economic crisis within the Eurozone, can this thought be applied to today's reality?

Theory

There is an inevitable relation between the rating agencies and the loan lending and purchasing of sovereignty bonds to Greece, by the ECB. As it was previously mentioned, due to the important position in the finance world of S&P, its ratings are extremely influential when investors make a decision (but mostly in non-crisis times). Therefore, in the case of sovereign

rates, if S&P downgrades the rate of state, the major impact relies on the quantity of loan lending approved by the ECB and the demand, supply and interest rate of the bonds. Still, evidence and facts within the Eurozone reveal that this is not the only possible relation.

The response of the ECB to the rating agencies is extremely different when there is an economic crisis within the Eurozone as well as a regional integration. The EU is united by more than their regional location, the establishment of the EMU made them change from cousins to brothers, meaning that their actions became a lot more interdependent and influential among Member States. It is because of this that the crisis in Greece had an impact in the EMU Member States, and even throughout the region. Due to the high integration of the EMU Member States, the ECB is responsible for their economic situation since it is the one in charge of the monetary policy as well as of watching that they are all following the parameters of the EMU. Consequently, the moment they found out the Greek crisis the ECB had (and still has) the obligation to respond and act to solve it. In this moment, the sovereign rate of Greece (or any other Member State facing a crisis) does not matter anymore. This can be evidenced in the chart below:

Table 3: EMU Sovereign debt rates by S&P

Country	Rating (last of 2012)
Portugal	BB
Ireland	BBB+
Italy	BBB+
Greece	SD
Spain	A
Belgium	AA
France	AA+
Germany	AAA
Netherlands	AAA
Slovak Republic	A
Slovenia	A+

Source: S&P

The PIIGS, despite their rate downgrade are the ones who receive the highest financial support, especially Ireland and Portugal, through the purchase of bonds and/or loan granting, in the EMU, through the ECB. The opposite would happen if there would not be any economic crisis; the ECB would consider the sovereign rate before taking any decision.

The change of attitude under the mentioned circumstances can also be evidenced through the ECB's rule book which states that "overdrafts or any other type of credit facility with the ECB or with the national central banks in favor of Union institutions, bodies, offices or agencies, central governments, regional, local or other public authorities other bodies governed by public law, or public undertakings of Member States shall be prohibited, as shall the purchase directly from them by the ECB or national central banks of debt instruments" (Ruparel & Persson, 2011). This reveals that the ECB, in theory, is prohibited to purchase sovereignty bonds and this, at the same time, assures political independence. Still, in practice, the ECB buys government bonds from Greece which supports the theory proposed in this paper because in times of economic crisis, the ECB makes "exceptions"- ignores the regulations- in order to maintain the political unity of the European Union. "The ECB's political independence is a founding principle of the Single Currency – and was seen as absolutely essential in order to avoid the ECB ever being used as a tool for politicians to finance government deficits" (Ruparel & Persson, 2011). Furthermore, as it was previously mentioned, the ECB also gives very cheap loans to Greece so that this country can have liquidity to respond to their debts. For the EMU Member States and the ECB there is a greater cost in letting the region dissolve than in increasing the loan granted to Greece and the purchase of government bonds.

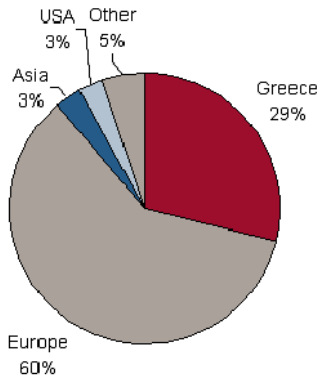

Figure 1: Greek government bond ownership by region

Source: BIS
Retreived from: "Who owns Greek Debt?"

The figure above shows, that most of the Greek debt is owned by the European region, represented mostly by the ECB. "Since June 2010, the ECB has purchased €77.5bn in government bonds through its Securities Markets Programme. Although information is scarce, it is widely believed that nearly all this money has been spent on debt peripheral Eurozone economies, mainly Greece, Ireland and Portugal" (Ruparel & Persson, 2011). Furthermore, "in 2010 the ECB is estimated to have purchased almost all of the long term government debt available from Greece" which means that it "was able to stay afloat due to credit provided on the back of the extra demand created by the ECB" (Ruparel & Persson, 2011). Clearly, the influence of the sovereign ratings of S&P changes when there is economic crisis within the Eurozone as well as when there is integration among the Member States of the EMU.

S&P is a world-wide recognized agency whose labor has impacted the financial system up to the point that bank policies, in specific cases, depend on the ratings of S&P. Although there are different divisions rated by S&P, for this paper we focus on the sovereign rates. Data from S&P establishes all the aspects related to the financial performance of a state that is considered

when ranking3. Still, it is extremely important to consider that analysts are humans; therefore, they tend to be influenced by an external environment when determining the rank that each state has in each section of the rate. This means that even though S&P has a specific function, to proved unbiased ratings, in the process of rating it is impossible not to have influence from the environment which is translated into manipulation of the information that S&P control. Considering that it is a private company, the privileged access to the information when rating a country gives them the power to decide when and how to influence the market. However, for this to take place two conditions need to be met. First, there cannot be an economic crisis within the zone. Second, there has to be no regional integration. Only then would the influence of the ratings of S&P have a direct impact in the quantity of loans granted to Greece and the purchase of its sovereign bonds.

Based on this information, the two proposed hypothesis are:

1. The lower the sovereign debt rate of Greece from Standard & Poor's, the lower the amount of loans granted and of bonds purchased to Greece from the European Central Bank, when there is not an economic crisis within the Eurozone.

2. There is no apparent relation between the sovereign debt rate and the loan granting and bonds purchasing of the European Central Bank to Greece, when there is an economic crisis within the Eurozone.

In the next section we discuss the variables used to implement the proposed theory described above.

3 The 5 aspects that S&P considers for ratings are provided in the section of Literature Revision.

Data and Methods

This theory contains three main variables. All the values are chosen from 2002 since Greece recently entered the EMU in 2001. This way, the data collected is more precise since they consider the Euro as the official currency and it gives a term of one year to stabilize the values included in this study.

1. ***Dependent Variable:*** ECB loan granting and sovereign bond purchasing.

The dependent variable is quantitative. The values of this variable are represented in the balance sheet of the Gross External Debt Position of the Bank of Greece. The values are annual. This allows comparing the bonds and notes, and loans, equally in all the periods. Even though the amount of money in the two divisions throughout 2012 is of great importance for this study, the values do not match the annual study used in this paper. It would not be possible to use quarter values since they are not available for all the years, not even for 2012.

Table 4: Long-term External Debt Position (millions of €)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bonds and notes	69745	89334	433,192	508,614	563,102	629,700	688,530	787,406	650,692	418,879
Loans	11218	11164	45,050	48,020	44,833	44,263	41,628	56,657	118,125	278,622
Total	80963	100498	478242	556634	607935	673963	730158	844063	768817	697501

Source: Bank of Greece- Gross External Debt Position

Based on the chart provided above, we obtain this figure:

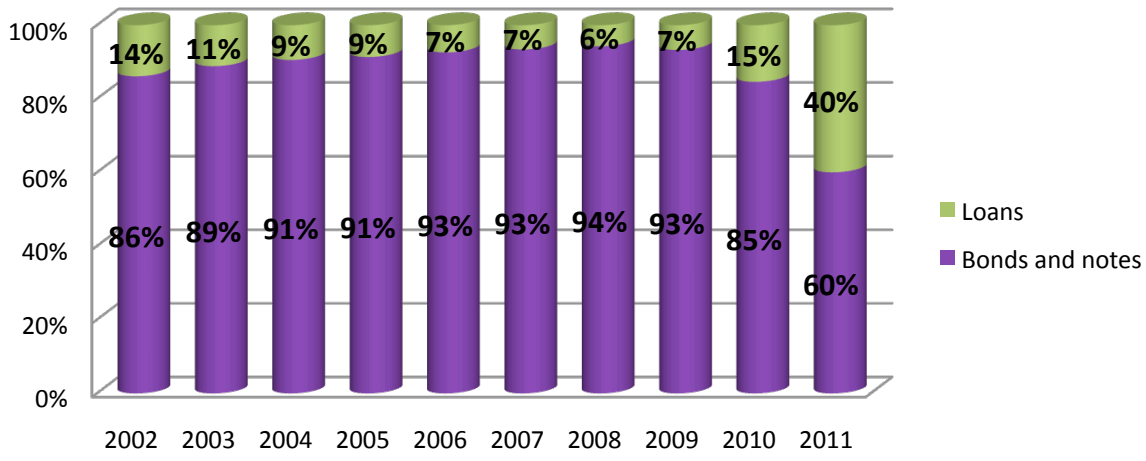

Figure 2: Loans, Bonds and notes as % of total external government debt

This figure represents the percentage that each division of our study has in relation to the total external debt. Furthermore, it allows having a clear idea of the changes that the compounds of the external debt of Greece has experienced since 2002. Throughout time, there is a common trend of the Bank of Greece depending more on bonds and notes than on loans. None the less, from 2009 to 2010 the percentage of loans duplicated, and from 2010 to 2011 it almost tripled. Clearly, the loans that the ECB has increased considerably which reveals the change in policies from the ECB towards Greece in times of crisis. In general, in times of economic crisis in the Eurozone, regardless of the sovereign debt rate of S&P, the ECB would lend and buy sovereignty bonds as much as necessary.

2. ***Independent Variable:*** Sovereign debt rate by S&P.

The sovereign debt rate is the most important theoretical variable. It is rated based on the external as well as the internal environment; more specifically, it depends on the five areas of

analysis done by S&P4. Each rating belongs to December of each year. This way, an accurate comparison between the total external debt position of Greece at the end of the year and the S&P sovereign debt rate can be developed, as showed in the chart below:

Table 5: Relation between Total External Debt Position and S&P Sovereign Rating

Period	Total External Debt Position (millions of €)	S&P Rating
2002	80963	A
2003	100498	A+
2004	478242	A
2005	556634	A
2006	607935	A
2007	673963	A
2008	730158	A
2009	844063	BBB+
2010	768817	BBB-
2011	697501	C

3. ***Antecedent Variable:*** economic crisis within the Eurozone.

This variable is qualitative. It is a dummy variable, characterized because it can only take two values: 0 means the absence of an economic crisis within the Eurozone; and 1 means the existence of an economic crisis within the Eurozone. This type of variable allows us to evaluate the effect of an exogenous shock – economic crisis- to the model. According to the ECB, there was an economic crisis within the Eurozone since 2005 when the ECB warned financial imbalances. In 2007, the ECB detected an increase in market vulnerability of the financial system and there were liquidity shortages worldwide ("Key Dates," 2012). 2008 was a key year because a lot of changes in the economic and financial aspects: the Lehman Brothers declared bankruptcy, banks - including the ECB- moved to cut rates, the G7 and the G20 met to discuss

4 The five areas are mentioned in the second part: Understanding Standard and Poor's.

possibilities to protect the financial system, to mention some. Still, it was not until October 2009 when the newly elected socialist government under George Papandreou that the fiscal crisis was revealed: Greece had a budget deficit of 13.6% of GDP in 2009 and its public debt was 115% of GDP. The ECB and EMU Member States took too long to react and so the Greek crisis exploded. The main issue relied in that the data revealed by the Bank of Greece was not real; therefore, it was almost impossible to be able to know the real situation behind their economic status. The ECB played a key role in the years before since it did not evaluate nor did it observe the Greek policies as close as it should have. "Greece was the worst fiscal sinner, having never complied with the Maastricht rules persistently and blatantly" (Aslund, 2010). In this year, the ECB also announced refinancing operations in the zone, but not specifically for Greece. From this moment on, the ECB entered in crisis and has started to work in order to prevent any of the PIIGS from leaving the EMU due to their economic condition.

4. ***Control variables:*** There are numerous variables that can influence this model.

a. Greece GDP- the Gross Domestic Product (GDP) measures the final value of all the final goods and services produced in one year in a country (Samuelson & Nordhaus, 2002). Its main components are private consumption, gross investment, government spending, exports and imports. From these components the most influential in the model is government spending. Initially, the Greek government spends a large quantity of money on social services, as it was previously mentioned, and it was due to an excess of it that they increased the internal crisis. After recognizing the crisis, the government was demanded to change the amount of money it spends as part of the programs to help Greece overcome the crisis. Another way GDP can influence the model is that through an analysis of the variable we can obtain the debt percentage of

GDP that can be sustained in the long term, with a specific interest rate and growth rate. This means that if there is no economic crisis Greece could raise their debt, and vice versa. Furthermore, a deeper analysis can reflect the time that Greece would need to be able to pay the external debt with the current economic situation.

b. Greece Per Capita GDP – this variable uses the GDP and divides it by the number of people in the country. Therefore, it provides information on the relative performance of a country, an increase of its value means that there is economic growth as well as an increase in productivity, and vice versa (Samuelson & Nordhaus, 2002). If the quantity of income of each individual decreases (Per Capita GDP) and the debt increases, the percentage of the public debt in comparison to its Per Capita GDP would be higher. This means that each person inside the country would acquire a higher cost of the external debt because government debts through loans or sovereign bonds are paid by the citizens, for example through an increase in taxes. In other words, the national debt is not a source of aggregated wealth because, in the end, it must be paid, which is done by means of taxation. It can be measured through a comparative analysis between Per Capita GDP and the amount of external debt of the Greek government.

c. Level of regional integration within the Eurozone – "The concept of integration refers to a process in which units move from a condition of total or partial isolation towards a complete or partial unification. Applied to the interaction between independent sovereign states, integration refers to a process of large-scale territorial differentiation characterized by the progressive lowering of internal boundaries and the possible rising of new external boundaries" (De Lombaerde & Van Langenhove, 2005).

According to the European Commission the level of integration can be measured under the variables portrayed in the table below:

Table 6: Parameters to measure the level of integration in the EU

Categories	Subcategories	Variables
Economic integration	Trade liberalisation policy	WTO Compatibility of rules of customs valuation Quality of classification of goods Application of rules of origin Exemptions Phasing out of temporary measures Liberalization of trade in services Importance of intra-regional trade
	Other integration Policies	Facilitation of investments Movement of persons Right of establishment Competition policy Creation and implementation of cohesion policy Improvement of comparable statistics Macroeconomic surveillance Trade facilitation measures
Functional regional cooperation	Transport	Progression towards a common transport policy Expenditure for maintenance of regional network Application of harmonized transit regulations
	Maritime Resources	Human and physical input for a common surveillance Human and physical input for a common evaluation of natural resources Enforcing of common quality and sanitary standards
Governance, Financial issues and functioning of institutions	Institutions	Number of meetings Qualitative assessment of meetings Performance of specific institutions
	Budgets	Fulfillment of requirements of budgetary contributions Transparency of procedures Implementation of budgets
	HR	Recruitment policy Staff training
Implementation of EDF projects and programs	Progress on appraisal	
	Decisions	
	Disbursements	Contracts concluded Contracts implemented

Source: European Commision (2002)
Retrieved from: De Lombaerde & Van Langenhove, 2005

d. Financial needs of Greece – This refers to the quantity of money that Greece requires in order to maintain as part of the EMU and to not be insolvent. This variable can be measured through the deficit of the balance of payments. A deficit increase would increase the financial needs of Greece. Another way this variable can be measured is through the payment of the external debt of Greece: if a high percentage of the debt has not been paid, the financial needs of Greece would increase. Therefore, the demand of loans as well as the supply of sovereign bonds would augment.

For this theory I am going to use econometric as well as statistical models. Both models are important because they provide the essential tools to estimate the parameters, proof hypothesis and predict the behavior of economic variables. One of the objectives of econometrics is to have a series of time variable in a country, so that its structural and dynamic analysis are able to use estimators to reliably predict future scenarios of short, medium and long term ("Applications of Econometrics," 2012). Furthermore, it allows verifying if there is an inclusion of an irrelevant variable, or the exclusion of a relevant variable. For example, in the case of the antecedent variable we need to use regression models, such as ANOVA, which only works with variance and only involves qualitative variables, and ANCOVA, which works with covariance and includes qualitative as well as quantitative variables that can influence the 1 or 0 outcomes ("Dummy Variables," 2012). Statistical models are useful to estimate input parameters for the model proposed in this paper, it helps to develop a statistical prediction model through which future behavior can be estimated. Additionally, it helps estimate uncertainties in observational data as well as in calculations based on observational data, and to characterize numerical data to help one to concisely describe the measurements and to help in the development of conceptual models of a system of processes ("Why use mathematical," 2012). All the characteristics of the

models mentioned above reveal the importance of using these in order to be able to apply and prove the theory proposed in this paper.

Results

With the proper use and the right combination of data and methods described above, I plan to find the correlation between the amount of loan and the purchase of government bonds of the ECB, and the rating of sovereign debt of Greece by S&P. Also, I plan to find that there is no influence between the sovereign debt ratings of Greece by S&P and the amount of loans granted and bond buying of the ECB to Greece, in times of crisis. Today, decisions and actions taken by the ECB demonstrate that despite the low sovereign rate of Greece, the organization is willing to give loans and buy bonds in order to maintain the EMU intact. Also, the methods and data collected seek to prove that force and the way that S&P ratings change when there is an economic crisis in the region. That is, it seeks to test both hypotheses in order to prove that hypothesis one is incorrect due to the existence of the antecedent variable. Due to this, what we expect to find is that the lower the S&P rating, the higher the amount of loans and demand of sovereignty bonds of Greece by the ECB. That is, it satisfies the second hypothesis. All of which supports my theory.

Conclusion

International Relations provide different theories from which the various events that take place in the international arena can be analyzed. Andrew Moravcsik, father of liberalism, has widely explained the inevitable influence of private groups in the international arena. This is the case of the ECB in relation to the rating agencies when there is no economic crisis. The decisions

regarding loan lending and sovereignty bonds purchasing, this is, in theory, prohibited for the ECB to do, have a direct relation: if a sovereign rate decreases, so does the amount of loans approved by the ECB and the amount of sovereign bonds bought through private companies. Does this apply in times of crisis? The information provided in the previous sections reveals that the scenario changes when there is an economic crisis within the Eurozone.

This study provides information of one of the most important subjects in international political economics: the economic crisis in the Eurozone and the response of the ECB, but the problem does not end there. The influences of rating agencies, especially of S&P as it is the oldest and the most influential in the finance world, in the outcomes of the Eurozone crisis have been greatly questioned. S&P rates corporations, financial institutions, fund ratings, insurance, international public finance, public finance, sovereigns and structured finance. In general, a credit rating reflects the creditworthiness of a government, in the case of a sovereign rate. In other words, it reveals the capability of a government to pay loans and sovereign bonds. In order to state the rating, S&P executes a wide investigation in the different areas that can influence the creditworthiness of a government, for example institutional effectiveness and political risk. When S&P is in the process of downgrading or upgrading a rating it publishes it in Credit Watch, and this is a way of warning the governments so that they can respond to the public when the new rating is published.

The ECB was created with the objective of managing the monetary policy of the member states of the EMU, all of which have agreed to follow the ECB's dispositions. Therefore, countries under its mandate cannot print coins without previous approval of the ECB. The economic crisis in the Eurozone started in 2005 but it became more evident in Greece in October 2009 when George Papandreou uncovered the deficit in the balance of payment of Greece that

the previous government had. Although the ECB had already warned the public of financial instability, they took longer than expected to react to the Greek financial crisis which, consequently, generated a greater negative impact inside the country. S&P had already warned the downgrade of Greece, this meant that numerous investors would retire their investments in that country which, consequently, aggravated the situation. Despite this, the ECB kept on giving financial support to the Greeks.

This model includes three main variables. The independent variable is the ECB loan granting and sovereign bond purchasing. It is independent because, regardless of the S&P sovereign rate of Greece, the ECB would always support its member states. The dependent variable is the sovereign debt rate of S&P. It depends on the five aspects that S&P evaluates when rating a government. The antecedent variable is the economic crisis within the Eurozone. This means that the presence of this variable influences the way the ECB uses and applies S&P sovereign rate. Finally, it is important to consider various control variables that can influence the model. Four control variables are included in this model; this does not mean that they are the only ones. The first one is Greece GDP, which measures the final goods and services produced in one year, and it can affect this model since an increase in the GDP would mean that there is a better economic situation and, therefore, the S&P sovereign ratings would influence the decisions and actions of the ECB. The second one is Greece Per Capita GDP, which is the country's GDP divided by the total number of people in Greece. This variable has the same impact in the model as the GDP. The third variable is the level of regional integration within the Eurozone. Also, it helps to understand the amount of money that the population would have to pay through taxation, due to an increase of the external debt. This means that the higher the level of regional integration, the less influence that S&P would have in the decisions of the ECB when

there is an EMU member state involved, like in the case of Greece. Finally, the financial needs of Greece also impact this model. Greece's economic crisis was caused by the deficit in the balance of payments as well as the incapability of paying the external debt.

All the information helps to have different conclusions. First, when there is an economic crisis within an integrated region, the amount of loans granted and the amount of sovereignty bonds respond more to political than to economic motifs. This means that the decisions of the ECB do not respond to the S&P sovereign rates. In theory, "when a government uses monetary policy to deal with a balance-of-payment deficit, its central bank limits public access to funds for spending purposes and makes such funds more example" (Cohn, 2002). In other words, for the EMU member states and the ECB there are greater costs in letting the region dissolve than in increasing the loan granted to Greece and the purchase of government bonds. Even the President of the Eurogroup, Jean-Claude Juncker, revealed this in one of his statements by establishing that, "the Eurogroup reiterates the importance of a further strengthening of Greece's institutional capacity" (Juncker, 2012).

On the other hand, when there is no economic crisis in an integrated region, the loans and the amount of sovereignty bonds bought do respond to an economic more than politic motif. Therefore, S&P does matter and influence the ECB decisions. Based on this, it is evident that in the case of Greece, due to a high regional integration and the presence of an economic crisis within the Eurozone, the ECB has responded more from a political perspective. Even though Greece has a SD rating, which means that it has the worst possible rate, the ECB has increased its loans to Greece and has even broke its internal law by buying sovereign loans, even if they justify it by stating that they do it through private companies. Furthermore, increasing the external debt of Greece only provides a temporary solution that has to be paid, sooner or later, by

the Greeks through taxes. In other words, higher debts are not a source of aggregated wealth because, at the end, they have to pay it by an increase of taxes.

In order to obtain more specific results there is the need of applying the methods previously described as well as studying more control variables that could influence the model. It is also useful to develop further studies regarding specific values of the amount of loans and sovereignty bonds purchased by the ECB. Today, due to the sensibility of the subject, the ECB does not have a detailed section describing the exact amounts of loans and sovereignty debt bought from Greece.

This model is a clear example of how the influence of private non-state actors in the international arena can change when other variables are present. Therefore, it cannot be said that the influence from S&P in the financial arena as well as in the international system maintains constant over a period of time. Consequently, the proposal of Moravcsik can be questioned under the circumstances previously described. The international system, in the economic, politic and social arenas, is constantly changing. Due to this, it is important to analyze the different situations under different scopes.

Bibliography

- *About Us: Standard and Poor's Rating Services*. (2012). Retrieved from http://www.standardandpoors.com/about-sp/main/en/us

- *Applications of econometrics to economy and business*. (2012). Retrieved from http://132.248.45.5/profesor/barajas/econom/aplica.pdf

- Aslund, Anders. (2010). *The Last Shall be the First: The East European Financial Crisis, 2008 – 10*. Washington: Peterson Institute for International Economics.

- *Browse Ratings by Practice*. (2012). Retrieved from http://www.standardandpoors.com/ratings/en/us/

- Cohn, T. (2002). *Global Political Economy: Theory and Practice*. Cambridge: Longman.

- De Lombaerde, P. Van Langenhove, L. (2005). *Indicators of Regional Integration: Conceptual and Methodological Issues*. Retrieved from http://www.tcd.ie/iiis/documents/discussion/pdfs/iiisdp64.pdf

- Doyle, M. (1995). *Liberalism and the End of the Cold War.* New York: Columbia University Press.

- *Dummy Variables in regression models*. (2012). Retrieved from http://cienciasempresariales.info/variables-dummy-en-modelos-de-regresion/

- *European Sovereign Debt Crisis*. (2012). Retrieved from http://www.investopedia.com/terms/e/european-sovereign-debt-crisis.asp#ixzz1snixOajp

- *European Union: Investor Presentation*. (2012).

Retrieved from
http://ec.europa.eu/economy_finance/eu_borrower/documents/eu_investor_presentation_en.pdf

- Finnemore, M. (1996). Norms, culture, and world politics: insights from sociology's institutionalism. *International Organization, 50.*

- *Greece Credit Rating*. (2012).
Retrieved from
http://www.datosmacro.com/en/ratings/greece

- Greece Ratings Lowered to SD (Selective Default). (2012). Standard and Poor's.
Retrieved from
http://www.standardandpoors.com/ratings/articles/en/us/?articleType=HTML&assetID=1245329471786

- Hand, J. Holthausen, R. Leftwich, R. (1992). The Effect of Bond Rating Agency Announcements on Bond and Stock Prices. *The Journal of Finance, 47.*

- *Investor Presentation.* (2012, April 30). European Union.
Retrieved from
http://ec.europa.eu/economy_finance/eu_borrower/documents/eu_investor_presentation_en.pdf

- *Key Dates of the Financial Crisis*. (2012). European Central Bank.
Retrieved from
http://www.ecb.europa.eu/ecb/html/crisis.en.html

- Kratochwil, F. (1989). *Anarchy and the state of nature: the issue of regimes in international relations*. Cambridge: Cambridge Press.

- Linder, F. (2012). How Rating Agencies are aggravating the Euro Crisis.
Retrieved from
http://www.social-europe.eu/2012/03/how-rating-agencies-are-aggravating-the-euro-crisis/

- Maher, R. Krotz, U. International Relations Theory and European Foreign Policy. *World Politics, 63 (3).*

- *Mission of the European Central Bank*. (2012).
  Retrieved from
  http://www.ecb.europa.eu/ecb/html/mission.en.html

- Moravcsik, Andrew. "Preferences and Power in the European Community: a Liberal Intergovernmentalist Approach". Journal of Common Market Studies. Volume 31, No.4 (1993)

- Moravcsik, A. (1997). Taking Preferences Seriously: A Liberal Theory of International Politics. *International Organization*s, *51 (4)*.

- Milner, Helen V. Moravcsik, Andrew. (2009). *Power, Interdependence and non state actors*. New Jersey: Princeton University Press.

- Nicolaïdis, Kalypso. (2004). We, the Peoples of Europe…. . *Foreign Affairs.*

- Now comes the pain. (2010, march 04). *The Economist*.
  Retrieved from
  http://www.economist.com/node/15603267

- Peel, Q. (2011, December 06). S&P feels Europe's ire over rating threat. *Financial Time,*
  Retrieved from
  http://www.ft.com/intl/cms/s/0/eb45353e-2003-11e1-8662-00144feabdc0.html#axzz1siZ3lcak

- PIIGS. In Investopedia (2012).
  Retrieved from
  http://www.investopedia.com/terms/p/piigs.asp#axzz1trpodBzR

- Ruparel, R. Persson, M. (2011). A house build on sand?: The ECB and the hidden cost of saving the euro. Open Europe.

- Risse-Kapen, Thomas. (1995). Bringing transnational relations back in: non-state actors, domestic structures and international institutions. Cambridge: Cambridge University Press.

- Samuelson, P. Nordhaus, W. (2002). *Economics*. Madrid: McGraw Hill

- *Sovereign Government Rating: Methodology and Assumptions*. (2011).
  Retrieved from
  http://img.en25.com/Web/StandardandPoors/CriteriaGovernmentsSovereignsSovereignGovernmentRatingMethodologyAndAssumptions_1365.pdf

- *Standard and Poor's Definitions*. (2010).
  Retrieved from
  http://www.bankersalmanac.com/addcon/infobank/credit_ratings/standardandpoors.aspx

- Juncker, J. *Statement by the Eurogroup President, Jean-Claude Juncker*. (2012).
  Retrieved from
  http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ecofin/128869.pd

- *The Economic Adjustment Program for Greece: Third Review*. (2011).
  Retrieved from
  http://ec.europa.eu/economy_finance/publications/occasional_paper/2011/pdf/ocp77_en.pdf

- *The first ten years.* (2012).
  Retrieved from
  http://www.ecb.int/ecb/10ann/html/index.en.html

- *Third Stage of Economic and Monetary Union*. (2011).
  Retrieved from
  http://europa.eu/legislation_summaries/economic_and_monetary_affairs/introducing_euro_practical_aspects/ec0015_en.htm

- *Who owns the Greek government debt and why restructuring is not so easy*. (2011)
  Retrieved from
  http://www.leimonis.com/2011/05/mainholdersofgreekdebt/

- *Why use mathematic and statistical models.* (2012).
  Retrieved from
  http://serc.carleton.edu/introgeo/mathstatmodels/why.html