ΟΙΚΟΝΟΜΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ

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Credit Rating Agencies and their Role Debt Crisis in the Euro Area: "Guilty Beyond Reasonable Doubt?"

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Διατριβή υποβληθείσα προς μερική εκπλήρωση
των απαραιτήτων προϋποθέσεων
για την απόκτηση του
Μεταπτυχιακού Διπλώματος Ειδίκευσης

Αθήνα
ΦΕΒΡΟΥΑΡΙΟΣ 2012

Εγκρίνουμε τη διατριβή τής Σκουρτανιώτη Ηλέκτρας

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Οικονομίδης Γεώργιος .....
ΟΙΚΟΝΟΜΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ

[ΗΜΕΡΟΜΗΝΙΑ]

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SUMMARY

The banking crisis in 2008-up to date triggered a crisis of confidence in the financial environment of several European Members starting from Greece and spread over other European countries such as Ireland and Portugal. The inevitable outcome was that by mid 2011 all those countries had accepted financial assistance from other EU Members and the International Monetary Fund.

Great attention has been drawn to credit rating agencies (most known Moody's Investor's Service, Standard & Poor's and Fitch Ratings) that have been subject of controversy during that sovereign debt crisis because of the widespread and longstanding use of their credit ratings in the financial markets. More specifically, the ubiquity of the ratings in combination with the power that they have, to exercise considerable control over the flow of capital, has prompted scrutiny concerning the magnitude and the seriousness of their effect to the rated entity.

The rating agencies were criticized after the banking collapse in 2008 for mis-rating certain financial products, contributing to the severity of the collapse. With their reputations not yet recovered, they have now been accused of precipitating and exacerbating the euro area crisis by deeply downgrading the sovereign ratings of Greece, Ireland and Portugal.

This thesis has attempted to provide an overview of the definitional framework, the analytical methodologies and processes behind credit ratings.

Additionally, it analyzes, based on a number of empirical studies and existing literature, the basic frictions and drawbacks related to credit ratings and the basic role that they have played in many financial crises and more specifically, in the recent debt crisis in the European area.

Firstly, credit rating agencies have been accused for their remuneration process that presents a conflict of interest in reference to the rating of a sovereign debt. Each agency's sovereign ratings are excessively reliant on issuer's fee revenue and that tends to create incentives for rating generosity.

Moreover, current massive downgrades of countries could easily feed a negative market sentiment and contribute to the exacerbation of the current debt crisis. That could feed into a cycle of further tightening of credit conditions and financial distress by borrowers (Procyclicality of credit ratings).

Another problem that is analyzed is that ratings hard-wiring; the presence of ratings in law, regulations, investment mandates, Basel rules and private contracts. That creates problems as it severely increases market's reliance on credit ratings as investors consider them as “official” and over-rely on them.

Last but not least friction of credit ratings is the fact that their methodology especially in sovereign ratings is not based on a mechanistic objective process but in contrast it is heavily relied on the judgment of rating agency so it can be claimed that there is no enough transparency in the rating process. This fact may well cause serious damages to a rated (downgraded) country as investors tend to consider them as authoritative indicators of creditworthiness, and not just as opinions that need to be further confirmed by other market indicators.

The shortcomings of credit ratings have caused the exacerbation of the crisis in the euro area. Undoubtedly credit rating agencies failed to predict the crisis in the euro area as they should have, and their serious mistake is that they took Eurozone as one thing so there was inadequate differentiation between the sovereign debt and consequently they failed to assess the financial health of several Members of the European Union in the run-up of a sovereign debt crisis. Moreover, with their massive downgrades in certain European economies they clearly worsen the position of countries like Greece and they helped in precipitating the European sovereign debt crisis. Yet it is true that so far credit rating agencies have assigned rating at "inappropriate" times without considering the potential impact of that.

INTRODUCTION

The global financial crisis of 2007- to date, has evolved as a serial contamination of "balance-sheets", starting from the household sector, being transmitted to the banking sector at the climax of the Lehman crisis in 2008, to finally reach the sovereign sector in 2009. The latter has affected several European Members.

Starting from Greece and spread over in other European countries such as Ireland and Portugal after a short time period, all those countries accepted financial assistance from the EU and the International Monetary Fund. Central role in the precipitation in crisis propagation has been played by credit rating agencies that downgraded Greece in late 2009 following the release of additional information by Greek authorities concerning Greece's public debt. That was drawn great attention to the rating agencies that have been subject of controversy during that sovereign debt crisis.

It is an indisputable fact that in financial markets there is a widespread and a longstanding use of credit ratings assigned by the largest rating agencies assign, notably the big three: Moody's Investor's Service, Standard & Poor's and Fitch Ratings. Those are private firms that they basically charge borrowers for evaluating their creditworthiness and for making that information available to private investors using standardized rating scales in alphanumeric form, namely ratings.

The ubiquity of ratings in financial markets and especially the "hardwiring" of ratings in investment decisions (both directly and indirectly) has frequently led market participants, policy makers and academics to criticize the role functioning of the rating agencies and their ensuing impact on financial and economic stability. But flawed or not, credit ratings consist an integral part of today's integrated capital markets and have a central role in capital raising and financial intermediation.

There has been a lot of criticism concerning the legitimacy and accountability of credit ratings. There is also a lot of discussion and continuous calls by firms, governments, financial regulators and the press to hold credit rating agencies accountable for their activities. Credit rating agencies have been accused after the banking crisis 2008 that have mis-rated certain financial products and thus they have exacerbated the crisis. Rating agencies are accused also in the context of Euro-area debt crisis for conspicuously failing to predict it and, even more, for exacerbating it.

Credit rating agencies have been also blamed in the past. Historically, their failure to predict the Asian crisis in 1997-1998 exposed some of the shortcomings that credit ratings have, sovereign or not, and has raised questions concerning their rating methodology and information content.

Nowadays, there is a wide spread literature that analyses and offers empirical studies that highlights some of the shortcomings of credit ratings. Those studies focus on their accuracy, methodology, incorporated factors in

their rating assessments, and the incentive problems that arise from their remuneration process. Moreover, worries have been raised concerning the market (over)reaction to rating announcements, and their incorporation in regulatory rules, such as the proposals by the Basel Committee on Banking Supervision and regulations regarding money-market mutual funds in the U.S.

The remainder of this thesis is organized as follows: chapter 1 provides the institutional context of the use of credit ratings. We focus on Moody's and S&P offering an outline of their methodology in rating assessment. Chapter 2 describes the economic context and the potential objective function of credit ratings agencies. We focus on reputational considerations and their impact on rating assessments. In particular, rating agencies preference to *err on the side of prudence* which could lead to conservative ratings and overreaction to negative information about fundamentals.

Chapter 3 describes the use of credit ratings for regulatory and investment purposes for reasons other than their information content, namely the hardwiring problem. Chapters 4 provides evidence on the role of credit ratings during the Asian crisis and especially the work by Ferry, Liu and Stiglitz (1999) that shows the fact that credit rating agencies do not look through the cycle and follow the market sentiment in a *procyclical* manner. Chapter 5 offers an overview of a wide spectrum of ratings' drawbacks and efforts that have been made through several amendments in the regulation of credit rating agencies.

We conclude by offering a critical appraisal of the current debate on the role of rating agencies in the debt crisis in the Euro area.

CHAPTER 1

1.1 What credit rating agencies do?

A **Credit rating agency** (**CRA**) is a company that assigns credit ratings for issuers of certain types of debt obligations as well as the debt instruments themselves. Their credit ratings are assessments of corporate or sovereign issuers of debt securities that they basically reflect the rating agency's opinion, in a specific time period, about the creditworthiness and financial robustness of every entity. Ratings are separating in two categories as they are either solicited which means that they follow the demand from debt issuers, or unsolicited so that they rate at their own initiative and without prior request by the debtor country, "that credit rating agencies conduct without being formally engaged to do so by the issuer" (IOSCO, 2003). As a consequence, in the first case the institute-borrower is paying a fee to the rating agency in order to broaden investments and establish risk benchmarks whereas in the latter rating agencies rate at their own initiative and without prior request by the debtor country so it does not involve the payment of a rating fee.

Unsolicited credit ratings have been widely used since the 1990s and account for a sizeable portion of the total number of credit ratings. CRAs argue that they rate purely in order to serve the best interests for creditors around the world and that unsolicited ratings should be seen as a service to "meet the needs of the market for broader ratings coverage" (Standard

&Poor's). Apparently, despite of the fact that they do not get any fee in the unsolicited ratings, they gain benefit from "cross-selling" capabilities as they cash-out their reputation gained by the unsolicited ratings at later stage when it comes the time to offer a solicited rating to borrowers. CRAs in other words, use their ability to issue unfavourable unsolicited ratings as a credible threat and as a strategy to improve their reputation in order to show to investors that they resist the temptation to issue inflated ratings that increases the value of a solicited (thus, favourable) rating and, hence, the fee that issuers are willing to pay for them.

1.2 The enhanced role of rating agencies

During the recent time period, the opinion of CRAs has become more important in the management of both corporate and sovereign credit risk and more influential to investors and other market participants. This fact is due to the increase in the number of issuers, firstly, and also to the advent of new and complex financial products, such as asset-backed securities and credit derivatives. Furthermore, the globalization of the financial markets has served to expand the role of credit ratings to countries other than the United States, where the reliance on credit ratings largely was confined for the first half of the twentieth century. Today, credit ratings affect securities markets in many ways, including an issuer’s access to capital, the structure of transactions, and the ability to make particular investments. Their role has recently received a boost from the revision by the Basel Committee on Banking Supervision (BCBS) of capital standards for banks culminating in

Basel II.

1.3 The big three credit rating agencies and their methodologies

Generally, credit rating agencies fall into two categories: (a) recognized and (b) non-recognized. The former are recognized by supervisors in each country for regulatory purposes. The most well-known and recognized CRAs are three; Moody's Corporation, Standard and Poor's and Fitch Group. There are installed in the United States of America except from Fitch which is dual-headquarted in New York and London and they are all Nationally Recognized Statistical Rating Organizations (NRSRO) which is designed by the US Security and Exchange Commission (SEC).The majority of the other CRAs are non-recognized. There is quite disparity among CRAs. Except of the fact that they may vary in size or scope (geographical or sectoral matters) of their coverage, CRAs differ in their methods and processes of evaluation that they use in order to establish credit ratings and in their definitions of the default risk.

Their credit assessment is summarised in alphanumeric scales. (Pic: 1)

Moody's		S&P		Fitch		
Long-term	Short-term	Long-term	Short-term	Long-term	Short-term	
Aaa	P-1	AAA	A-1+	AAA	F1+	Prime
Aa1		AA+		AA+		High grade
Aa2		AA		AA		
Aa3		AA-		AA-		
A1		A+	A-1	A+	F1	Upper medium grade
A2		A		A		
A3	P-2	A-	A-2	A-	F2	
Baa1		BBB+		BBB+		Lower medium grade
Baa2	P-3	BBB	A-3	BBB	F3	
Baa3		BBB-		BBB-		
Ba1	Not prime	BB+	B	BB+	B	Non-investment grade speculative
Ba2		BB		BB		
Ba3		BB-		BB-		
B1		B+		B+		Highly speculative
B2		B		B		
B3		B-		B-		
Caa1		CCC+	C	CCC	C	Substantial risks
Caa2		CCC				Extremely speculative
Caa3		CCC-				In default with little prospect for recovery
Ca		CC				
		C				
C		D	/	DDD	/	In default
/				DD		
/				D		

Pic: 1 Rating Assessment

Their credit assessment is relied on a process based on both quantitative and qualitative information about the issuer. Crucial part is that some of that information might be non-public and confidential.

“Issuers historically have been able, but not obliged, to provide non-public information to credit rating agencies such as projections, legal documents, priority of claims and collateral characteristics.”

(Moody's report of the Code of Professional Conduct).

Additionally, rating agencies are not required by law to disclose specific confidential elements of information that they possibly incorporated into their rating, because they are protected by special provisions of the law in several jurisdiction such as Regulation Fair Disclosure (FD) in the U.S. Regulation FD is the SEC rule aimed at preventing the selective disclosure of non-public information and material by issuers to persons that may use that information inappropriately. FD prohibits selective disclosure of non-public information, however, provides a conditional exception for credit rating agencies, or through private confidentiality agreements with issuers. Through this it can be possibly implied that it might be other stated reasons for some rating actions. Moreover, rating agencies consider themselves as "journalists" and that and are protected under "freedom of speech" 1st Amendment of the U.S. “*Our credit ratings are forward-looking* ***opinions*** *that seek to measure relative credit loss.*” (Moody’s Code of Professional Conduct).

1.4 Sovereign ratings

The basic aim of a sovereign rating is "measuring the risk that a government may default on its own obligations in either local or foreign currency. It takes into account both the ability and willingness of a government to repay its debt in a timely manner" (Moody's special comment

(August 2006:1). A Guide to Moody's Sovereign Ratings.)

The sovereign rating bond process considers a large number of economic, financial, political and social parameters that affect a government's creditworthiness. Moreover there are four broad categories that other significant factors fall like the county's economic strength, country's institutional strength, the government's financial strength and finally the country's susceptibility to event risk.

Before the determination of a sovereign rating there are frequent visits during which credit rating analysts meet with government officials, non government organizations, research institutes, major banks and corporations. Finally, as credit ratings agencies support, their rating's methodology for sovereign debts is adjusted for any idiosyncratic factors related to a country's specific circumstances.

The main measures in credit risk models, in general, are the following:

- Probability of Default(PD)
- Expected time of default
- Recovery Rate (RE)-time that needs to recover after the default has occurred.

As it is mentioned above, each CRA uses different evaluation process when it comes the time to establish credit ratings. For instance, Moody's ratings focus mainly on the Expected Loss (EL) which is the function of both

Probability of Default (PD) and the expected Recovery Rate (RE). EL= PD (1-RE)

On the other hand, Standard and Poor's captures only the probability of the occurrence of default and they give no importance neither on the expected time of default nor on the time needed for the recovery.

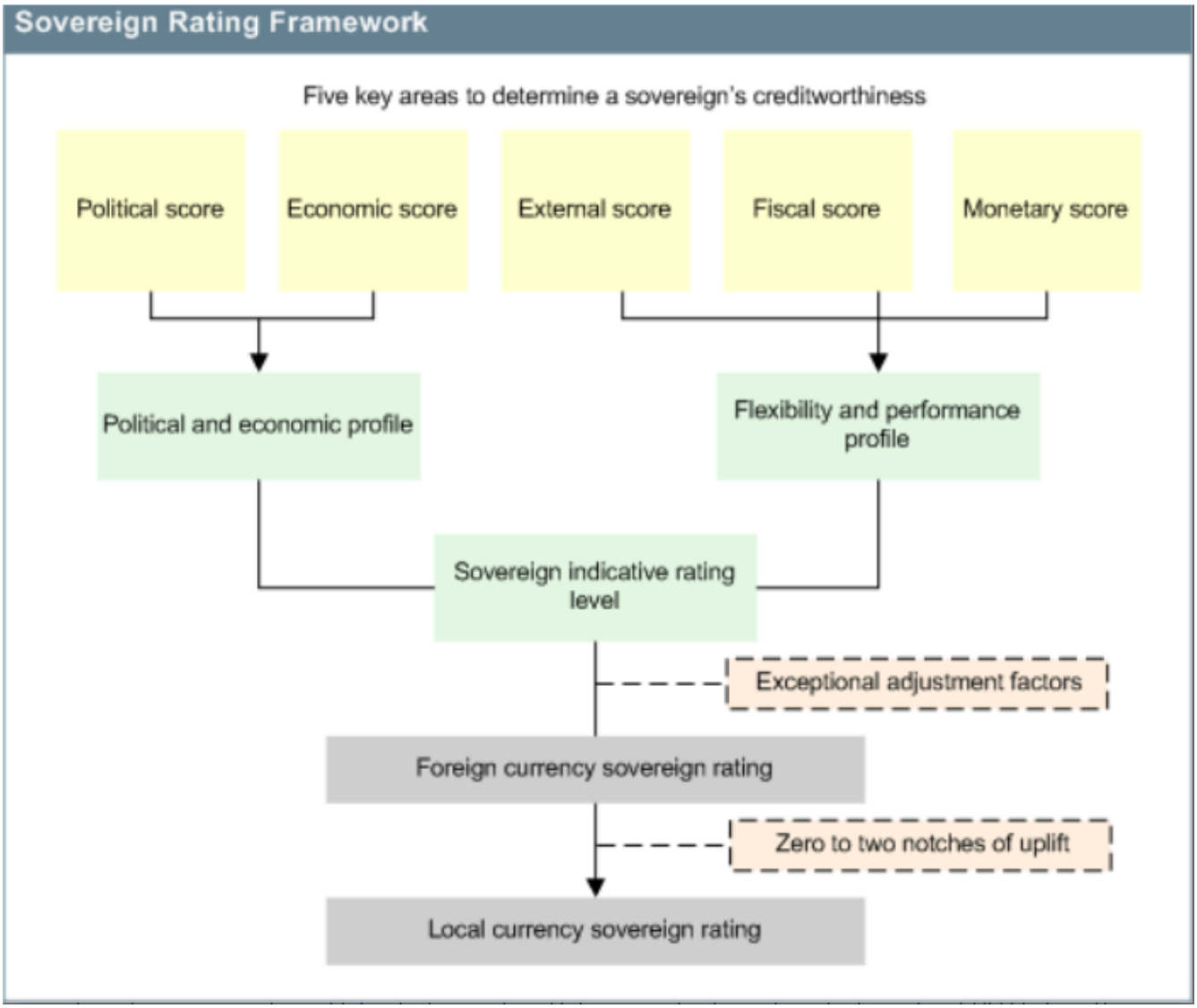
Lastly, Fitch's ratings focus on both the default probability and on the Recovery Rate. They are actually more alert to possible discontinuities between past track records and future trends.

1.5 Standard & Poor's rating methodology

Analytically, the five key factors that form the foundation of Standard and Poor's sovereign credit analysis are:

- Institutional effectiveness and political risks, reflected in the political score.
- Economic structure and growth prospects, reflected in the economic score.
- External liquidity and international investment position, reflected in the external score.
- Fiscal performance and flexibility, as well as debt burden, reflected in the fiscal score.
- Monetary flexibility, reflected in the monetary score.

The chart below summarizes the several steps that sovereign rating analysis by S&P involves. (Pic: 2)



Pic: 2 Sovereign rating analyses by S&P

Each factor receives a score, which is based on series of quantitative factors and qualitative considerations, using a six-point numerical scale from

'1' (the strongest) to '6' (the weakest).

Economic score stands for the economic risk that addresses the ability to repay its obligations on time and it’s a function of a series of quantitative factors and qualitative considerations. Political score is the willingness to repay debt which is a qualitative issue that distinguish sovereigns from the other types of issuers. The reason for that is that government has the capability to default selectively on its obligations even if possesses the financial capacity for debt service. A government that is unwilling to repay debt is usually pursuing economic policies that weaken the ability to do so. Therefore willingness to repay encompasses the range of economy and political factors influencing government policy. As it is mentioned before the economic and political variables form the basis for assigning the scores. The criteria then combine those five scores to form a sovereign's "political and economic profile," and its "flexibility and performance profile"

- The political and economic profile. It reflects the view of S&P of the resilience of a country's economy, the strength and stability of the government's institutions, and the effectiveness of its policy-making. It is the average of the political score and the economic score.
- The flexibility and performance profile. It reflects the view of S&P of the sustainability of a government's fiscal balance and debt burden, in light of the country's external position, as well as the government's fiscal and monetary flexibility. It is the average of the external scores the fiscal score and the monetary score.

Both the "political and economic profile" and the "flexibility and performance profile" are then used in the table below to determine the final rating level. (Pic: 3)

Indicative Rating Levels From The Combination Of (1) The Political And Economic Profile With (2) The Flexibility And Performance Profile

		Political and economic profile										
Flexibility and performance profile	Category	Superior	Extremely strong	Very strong	Strong	Moderately strong	Intermediate	Moderately weak	Weak	Very weak	Extremely weak	Poor
Category	Score	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Extremely strong	1 to 1.7	aaa	aaa	aaa	aa+	aa	a+	a	a-	bbb+	N/A	N/A
Very strong	1.8 to 2.2	aaa	aaa	aa+	aa	aa-	a	a-	bbb+	bbb	bb+	bb-
Strong	2.3 to 2.7	aaa	aa+	aa	aa-	a	a-	bbb+	bbb	bb+	bb	b+
Moderately strong	2.8 to 3.2	aa+	aa	aa-	a+	a-	bbb	bbb-	bb+	bb	bb-	b+
Intermediate	3.3 to 3.7	aa	aa-	a+	a	bbb+	bbb-	bb+	bb	bb-	b+	b
Moderately weak	3.8 to 4.2	aa-	a+	a	bbb+	bbb	bb+	bb	bb-	b+	b	b
Weak	4.3 to 4.7	a	a-	bbb+	bbb	bb+	bb	bb-	b+	b	b-	b-
Very weak	4.8 to 5.2	N/A	bbb	bbb-	bb+	bb	bb-	b+	b	b	b-	b-
Extremely weak	5.3 to 6	N/A	bb+	bb	bb-	b+	b	b	b-	b-	ccc/cc	ccc/cc

Pic: 3 Determination of the final rating level by S&P

1.6 Moody's rating methodology

Moody's is also uses a combination of quantitative and qualitative factors. The quantitative measures are mostly used in order to assess the historical performance and the trends. The weights that are put in each variable are depended on whether the country has a high income and institutional stability in the past or the country is in development.
Qualitative measures assess the obtained data concerning sovereign's economic, political and social factors.

In the following, Moody's methodology in sovereign bonds rating is presented and it can be is summarized in three main steps:

- Country economic resiliency
- Government financial robustness
- Determining the rating

The first step consists in determining the shock-absorption capacity of the country, based on the combination of two key factors:

- Factor 1: the country’s economic strength, captured in particular by the GDP per capita – the single best indicator of economic robustness and, in turn, shock-absorption capacity.
- Factor 2: the institutional strength of the country, the key question being whether or not the quality of a country’s institutional framework and governance – such as the respect of property right, transparency, the efficiency and predictability of government action, the degree of

consensus on the key goals of political action – is conducive to the respect of contracts.

Combining these two indicators helps determine the degree of resiliency, and position the country in the rating scale: very high, high, moderate, low or very low.

The second step focuses directly on debt matters, and especially the combination of two other factors:

- Factor 3: the financial strength of the government. The question is to determine what must be repaid (and how "tolerable" the debt is) and the ability of the government to mobilize resources: raise taxes, cut spending, sell assets, and obtain foreign currency.
- Factor 4: the susceptibility to event risk – that is the risk of a direct and immediate threat to debt repayment, and, for countries higher in the rating scale, the risk of a sudden multi-notch downgrade. The issue is to determine whether the debt situation may be (further) endangered by the occurrence of adverse economic, financial or political events.

Combining these two indicators helps determine degrees of financial robustness and refine the positioning of the country on the rating scale.

The third stage consists in adjusting the degree of resiliency to the degree of financial robustness. This results in the identification of a rating range.
The determination of the exact rating is done on the basis of a peer comparison, and weighting additional factors.

The identification of the relationship between CRAs' criteria and the actual ratings is quite difficult. That is because it can be proven that some of the criteria used are not quantitative or quantifiable but qualitative. As a result, there are interrelations between variables and the weights are not fixed across sovereigns. CRAs rely on a quite large number of criteria and there is no formula for combining the scores to determine ratings.

In practice, a small number of variables such as: (i) GDP per capita (ii) real GDP growth per capita (iii) the Consumer Price Index (CPI) (iv) the ratio of government fiscal balance to GDP and (v) government debt to GDP have a large impact on credit ratings. This means that a higher GDP per capita leads to higher ratings.In contrast, higher CPI inflation leads to lower ratings,and also the lower the rating is, the lower the government balance as a ratio to GDP. Finally, higher fiscal deficits and government debt in relation to GDP have result lower ratings.

In conclusion of this chapter, it's worth to be mentioned that CRAs underlying that ratings should not be used alone as a basis for investment operations and that they have no value in forecasting the direction of future trends of market price. They clearly support that market price movements are influenced not only by the credit quality of individual issuers but also by other factors such as changes in money rates, length of maturity, general economic trends, etc and not only by the credit quality, the only characteristic to which ratings refer.

"Ratings are, and must be construed solely as, statements of opinion and not

statements of fact or recommendations to purchase, sell or hold any securities. Each rating or other opinion must be weighed solely as one factor in any investment decision made by or on behalf of any user of the information, and each such user must accordingly make its own study and evaluation of each security and of each issuer and guarantor of, and each provider of credit support for, each security that it may consider purchasing, selling or holding."

(Moody's Ratings Definitions- Limitations to use of Ratings)

CHAPTER 2

2.1 Credit rating agency's basic objective function (economic context)

Markets in general are characterized by asymmetric information, which means that the firm's true credit worthiness is private information to the issuers. The credit rating agency evaluates and publishes the issuer's credit quality, which is his ability to repay investors. In other words, the basic objective function of the CRA existence is to provide forward-looking opinions on the relative creditworthiness of issuers of debt and debt instruments in order to solve the problem of informative asymmetry that lenders and borrowers face regarding to the creditworthiness of the latter. Requiring a minimum rating they can limit the risk for the owners of assets and guarantors; otherwise an asset manager would invest principal's funds in high-risk assets. The rating agencies help investors overcome their lack of information about the variables that will determine whether a borrower will service debt. Thus, they contribute to solving principal agent problems by helping the lenders by providing them information and also to serve the best interests for creditors. The rating agencies are ‘gatekeepers’ like auditors, investment analysts, and journalists.

The agencies do not take full responsibility for their ratings as they stress that their ratings constitute only their opinions and they are not in any

way recommendations to buy, sell or hold a security or even more they do not address the suitability of an investment for an investor. In fact, they have successfully (so far) maintained legal immunity that claims on the ground that they are only financial journalists publishing their opinions, which are protected free speech.

Ratings have an impact on issuers via various regulatory schemes by determining the conditions and the costs under which they access debt markets. According to Moody's Ratings Policy and Approach, the aim of ratings is the understanding of all relevant risk factors and viewpoints to every rating analysis. In their basic principals they are underlying their focus on the long term which means they analyze all the fundamental factors that affect the long term ability of the issuer to meet its debt payments, such as a change in market strategy or regulatory trends.

"The values of our ratings are not limited to the time of any initial purchase decisions, but extend throughout the lives of rated instruments."

(Moody's - credit rating, research, tools and analysis for the global capital markets.)

2.2 Rating agencies and Basel II

Recently, CRAs have obtained a new role as a result of the changes in capital requirements under Basel II. They are used to assign risk weights determining minimum capital charges for different categories of borrower.

Under Pillar I of Basel II regulatory capital requirements for credit risk are calculated according to two alternative approaches:

- The Standardized Approach
- The Internal Ratings-Based Approach.

Under the Standardized approach the measurement of credit risk is based on external credit assessments provided by External Credit Assessment Institutions such as credit rating agencies or export credit agencies .Under the Internal Ratings-Based Approach banks are use their own rating systems to measure some or all of the determinants of credit risk.

Regulation in the European Union
Before 2009 oversight of rating agencies in the European Union relied largely on voluntary adherence to the IOSCO Code as overseen by the Committee of European Securities Regulators.In addition, the Capital Requirements Directive(2000/12/EC), which adopted the Basel II framework in the European Union, allows the use of external credit assessments-to be provided by external credit assessment institutions recognized by national authorities-in determining risk weights when calculating the minimum regulatory capital requirements of banks. To promote converge, the committee of European Banking supervisors has issued Guidelines on the recognitions of such institutions. Finally ,the EU Market Abuse Directive (2003/12/EC) and the Markets in Financial Instruments Directive (2004/39/EC) exclude ratings from the definition of investment recommendations. (**THE WORLD BANK GROUP** -Financial and Private Sector Development Vice Presidency-October 2009)

2.3 The objective function of sovereign ratings

When applied to a government they reflect the credit risk facing an investor who holds debt securities issued by that government. Rating agencies assign unsolicited ratings (without the participation of the issuer or

any related third party in the rating process). Obviously, issuers with lower credit ratings pay a risk premium which is donated with higher interest rates compared to other rated issuers. Moreover, ratings determine the eligibility of debt and certain other financial instruments for institutional investors portfolios 's due to national regulation that restrict investment in speculative bonds, as it is stated in the **Moody's Policy for designing Unsolicited Ratings in the European Union.**

CRAs reserve the right to issue unsolicited ratings as publisher of opinions about ratings. Unsolicited ratings are assigned because it is generally believed that broadly credit ratings coverage generally benefits the market and the investing public, "meet the needs of the market for broader ratings coverage".(Standard &Poor's 2007). According to that view in any case there is a belief that there is a meaningful market that captures the attention and the interest of investors it should be provided rating coverage and the ratings should be assigned with or without the participation of the rated entity. The previous statement consist Moody’s allegation about the purpose of the unsolicited ratings as it is described in the Moody’s policy guidelines. In consistence to this the main purpose of Moody’s unsolicited ratings is to provide greater transparency to market participants with respect to published credit ratings that are initiated by MIS (Moody' s Investment Services) entities situated in the EU. Furthermore, the publication of an unsolicited credit rating is based among other factors on Moody’s assessment of the usefulness of the rating in the capital markets plus Moody’s determination that sufficient public information is available in order to

support adequate analysis, assign and determinate the rating. In any other case, as Moody's clarifies in the policy guideline, where there is not enough information there will be no rating evaluation.

2.4 Rating agencies and the "through the cycle" rating action

Interesting part is Moody's statement that claim that use as a rule of thumb that they are rating through the next economic cycle or maybe longer which means that they are able to separate trend components of default risk from transitory ones. As a result, they support that their ratings are not intended to catch up and down with business or supply-demand cycles or to reflect last quarter's earnings report(in other words they do not assign Point-In-Time ratings). On the contrary, they avoid to rate a security conservatively because of poor short-term performance if they believe that the issuer will recover and prosper in the long-term(they assign the so-called Through-The-Cycle ratings)."Point in time" practically means that all the default probabilities for firm, prevailing on a specific date are default probabilities at that "point in time" for that firm, and that at a different point in time ,for instance the next day, default probabilities would be different if the inputs have changed.

On the contrary, "through the cycle" rating implies the longest default probability available because this maturity does the best job of extending through as much of the business cycle as possible.

The ability to rate through the cycle is a very important competence for the rating agencies. However, there hasn't been any empirical research that

actually prove that competence. This fact creates a lot of criticism and rating agencies have been accused that they use the "story" that they rate through the cycle as a marketing trick to cover a low cost policy of reviewing ratings only infrequently and to avert criticism that their reaction in new information is too slow.

2.5 Counterbalancing incentives in the rating process

CRAs , as it has been mentioned before, make the evaluations public by assigning credit ratings to issuers in return for a fee. Issuers from the other, are asking for these ratings because they believe that they will benefit from it because their assigned rating substantially will improve the terms at which they can raise capital. Crucial information is that issuers are able to pay only if the ratings are high enough to fulfill their beliefs, in other case they don't accept the rating and they pay nothing.

This automatically creates an incentive for the rating agency to strategically assign inflated ratings in order to motivate issuers to pay for them. At the same time, on the opposite, investors observe the agency's past performance as measured by the debt-repaying records of previously rated issuers, in order to assess the credibility of its ratings so obviously it’s a fact that the key to the success of a rating agency and its credibility in the eyes of the investors is summarised by its reputation. As a result there is a “trade - off” between selling inflated ratings so as to increase short term profits, and revealing the true information of the situation that a firm faces and its future prospects so as to increase its reputation in the eyes of investors that will

"cash-out" in the long term. Issuing inflated ratings, will damage a lot a CRA in the long run as it might end up to be considered as unreliable due to the fact that there is an increased likelihood that an incorrectly highly rated agency will not be able to repay its debt to the investors. It should be mentioned that after a default, investors are not able to perfectly distinguish cases of "bad luck" from cases of "bad rating"(thus inflated one). As a result, this rating agency becomes less valuable to issuers and this reduces the fee that it can charge them for future services. Consequently, a rating agency's optimal strategy is the one that achieves to balance higher short term fees from issuing more favourable reports against higher long term fees from an improved reputation so, the benefit of "cheating"(not repaying debt) must be weighed against the cost of lost reputation.

2.6 Unsolicited rating are lower than solicited-err on the side of prudence

Among the most controversial aspects of the credit rating business is the practice of assigning unsolicited ratings because in that case, ratings are not based on sharing of private information or in the cooperation between the CRA and the rating entity. Moreover ,there has been a lot of criticism and concern that unsolicited ratings "do not appear to be empirically as favourable as solicited ratings"(SEC.2002) which means that unsolicited ratings tend to be downward biased than solicited ones where agencies are hired and paid to rate. The main reason why this is happening is the reputation that plays a vital role for a rating agency. First of all, the rating

agencies 's ability to assign unsolicited ratings increases the fees that is able to charge for the solicited ratings. The reason for that, is that the unfavourable unsolicited rating consist a credible threat for the issuers in order not to refuse the ratings and to be willing to pay for them. The threat is totally credible because by releasing unfavourable unsolicited ratings the agency shows to the investors that it resists the temptation to assign inflated ratings in return of a higher fee so it is reliable; fact that improves rating agency's reputation. In addition to this and because of the fact that reputation plays significant role in the success of a rating agency combining with the lack of private information that an unsolicited ratings include, we can come to the conclusion that rating agencies especially conservative ones have a strong interest in erring in the side of prudence which means that ratings tend to be biased toward negative view. In other words, they prefer rating an issuer "too bad" rather than "too good" especially in the case of opaque borrowers. Hence, agency conservatism play a significant role in the rating process, leading to downward biased unsolicited ratings.

There is also another argument on the part of rating borrowers this time that can explains differences between solicited and unsolicited ratings. This argument supports that borrowers can have strategic behavior and it is based on the "self-selection hypothesis" that means that high quality issuers self-select into the solicited rating group, whereas low quality issuers self-select into the unsolicited rating group. In more detail, firms that perceive their unsolicited ratings to be too low, will choose to commission proper ratings which should then correctly reflect their better credit quality, with the

expectation of course, to get profit from lower credit spreads requested by investors due to the rating improvement. On the other hand, issuers that feel that their unsolicited rating correctly reflects their credit quality, will not decide to pay for a solicited rating as it may not increase their rating level. As a result low quality issuers will remain with their unsolicited, and often low rating. Under this argument unsolicited ratings are unbiased because they fully reflect an issuers credit quality, irrespective of the issuers solicitation status.

In contrast to the previous argument, strategic rating behavior by the rating agencies or else the "punishment hypothesis" is particularly concerned with errors in the ratings. It states that lower unsolicited ratings are the outcome of either punishment for issuers that they are not willing to pay for rating services or rating agencies' conservatism that enforces them to assign downward biased ratings because of they are afraid of losing their valuable reputation.

Rating errors fall into two categories with different consequences for bond holders who are the main users of rating information.

- Type-I error (overrating):occurs if an issuer is assessed as low risk and is assigned with a high rating , but defaults nonetheless.

- Type-II error (underrating): The opposite of the previous, as it occurs when a low rating issuer doesn't default.

A conservative rating agency worries much more about overrating rather that assigning too pessimistic evaluations.(Morgan 2002) Moreover, this

effect is being magnified by weak information basis which is exactly the case in the unsolicited rating process. As a consequence, given a conservative CLA ,the lack of soft information in unsolicited ratings will lead to a considerable (downward) difference compared to solicited ones. It worth to be mentioned that the downgraded bias in unsolicited rating would be stronger in opaque firms like banks and insurance firms due to their complex assets and liability structures.(Morgan 2002)

To sum up, the arguments that can explain the level differences between solicited and unsolicited ratings are the following:

- strategic behavior on the part of rating borrowers.
- or, strategic actions on the part of rating agencies.

(Bannier Behr and Guttler -Rating Opaque Borrowers: why are Unsolicited ratings lower?)

Overall, we can consider that ratings agencies use conservatism (err on the side of prudence) as a rating strategy that allows them to keep their reputation in high levels. However, this strategy has many impacts to the rated firms. For instance there might be a case that several firms have identical credit quality but they are assigned by different ratings. Apparently, this is happening because ratings depend not only on the creditworthiness of the firm but also on the firm's solicitation status. In other words, firms that do not mandate for a rating will get an unsolicited-lower rating than those who

have asked and paid for a rating. Ex-post analysis to issuers with identical rating level but different solicitation status shows that issuers with unsolicited ratings are less risky than issuers with solicited ratings, which means that unsolicited status should be negative correlated to the company's default incidence.

CHAPTER 3

3.1 Ratings *hardwiring*: Economic frictions related to ratings

Due to the great availability and convenience that credit ratings succeed to offer in the measurement of credit quality, their use has been widely expanded. As a result, despite of the informational and monitoring role of the credit ratings, there has been a lot of theoretical literature that gives emphasis to the so-called "certification" role of ratings (hardwiring of regulatory and market rules). "Certification" role is playing by credit ratings when they are included in regulatory capital requirements and thresholds and when they specify the terms, conditions and restrictions in various financial contracts. Regulators, bondholders, banks (in loan and bond covenants), pension fund trustees, insurance company charters and other fiduciary agents have made an increasing use of credit ratings-based constrains in their rules. As a result of that excessive use of ratings, the influence of the credit rating agencies has been grown significantly in the financial market and in many cases ratings are not used just for their initial purpose, thus for their information content, but they are used as benchmarks or standards of the creditworthiness of an entity. The hardwiring of the credit ratings into the regulation and other financial contracts has magnified the reaction of the market to the rating changes. Consequently, this fact has reduced the incentives of market participants to conduct their own risk assessments, in other words it has increased the over-reliance on CRAs which it would be discussed further in chapter 5. In addition, problems associated with the hardwiring have been

even more exacerbated since credit ratings they have been accused of being unreliable as it had been observed several conflicts of interest in the way that some ratings have been produced.

3.2 The "Principle-Agent" problem

Hardwiring on ratings can help to resolve the "principal-agent" problem (Jensen and Meckling) which is a moral hazard problem between individual investor (the principal) and the institution (the rating agency) that has been appointed to manage investor's portfolio.

It is clear that generally the incentives of the professional investor are not fully aligned with the investor's incentives as the fund manager may seek to maximise upside returns irrespective of risk whereas the investor's main willingness is to maximise the returns with the lowest possible level of risk. The problem is stated when the principal partly controls the actions of the agent (fund manager) by linking his investment decisions on publicly observed signals like credit ratings. So, the principle motivation for hardwiring to ratings is to formulate a simple and verifiable rule with low transaction costs as to be able to monitor the actions and to maximize the incentives of the agents to perform well.

As a result, credit ratings are used as tools for the mitigation of the principal-agent problem in other areas within credit market (Cantor 2004). For instance, based on a borrower's credit rating, credit committees often

require varying levels of review before approving underwriter recommendations. Furthermore, some financial regulators change their capital requirements according to the riskiness of the institution 's assets as measured in part by credit rating agencies when they assigned to its investments. Finally, lenders offer to borrowers more favourable terms if they are willing to commit to rating-based covenants that trigger debt re-pricing or collaterization.

Moreover, the same is true with regulators that recognise their limited capacity to regulate and supervise financial institutions in continues time and, therefore, they implicitly "subcontract" such a monitoring responsibility to the credit rating agencies.

3.3 The expanding use of credit ratings: Areas in which ratings hardwiring

Collateral agreements and loan contracts : A wide range of financial contracts have included references on credit ratings. Central banks for instance, frequently rely on ratings assigned by external credit rating agencies in the definition of eligible assets, either for the investment of their own funds and foreign exchange reserves or as a monetary policy collateral.

An indicative example of this is European Central Bank's (ECB) collateral rules. ECB, according to the general eligibility criteria of the collateral framework prior to the financial crisis, was accepting as collateral in repo operations paper with minimum credit rating of single A- from one

credit rating agency. That restriction was relaxed in May 2010 and now the ECB accepts any paper issued or guaranteed by an EMU members state, irrespective of their external credit rating. However, ECB still does not accept paper rated as selective default. It has to be mentioned that selective default may well occur even in cases of "voluntary" debt exchanges. In that case, debt exchange operates as last resort solution if it appears that without such an exchange the only alternative for the sovereign would be to default.

Another indicative example of the involvement of the credit ratings in collateral agreements is of Credit Support Annex (CSA) of a standard International Swaps and Derivatives Association (ISDA). The terms, according to which collateral calls will be made, are analytically described in the over-the-counter derivatives market which often state that additional collateral will be called weather an event of a credit ratings downgrade occur. Consequently, the creditworthiness of the market participants as it has been assessed by the credit rating agencies determine the conditions under which the market participants are able to access the markets.

Investment mandates, policies, criteria for index inclusions : Ratings are hardwired into the investment mandates of life insurers, pension funds, mutual funds and so on. Their role is to determine eligibility criteria for inclusion in bond indices or they act as performance benchmark for fund managers especially for small to medium sized asset managers who do not have the sufficient resources in order to develop a reliable internal credit assessment. Ratings contribute to determining the eligible assets that are used in order to determine the maximum or often minimum proportion of

authorised holdings. In addition to this, ratings also responsible for the reactions of the asset managers when they face changes in the credit quality of their holdings. There are many cases, where institutional investors are restricted by their internal charter procedures to invest in paper below a certain threshold. This situation lead informed traders to overreact to news about fundamentals.

As it is mentioned before it is widely implied that credit ratings are used for benchmarking purposes. The most famous distinction among credits that is based on ratings and one of the main threshold in the world is the investment and the sub-investment grade (or speculative grade) dichotomy. That distinction is defined by the BBB rating, thus above that rating it is the investment grade and below that rating,(BB-) there are many market participants that there are not allowed to hold the asset or they may only hold it in limited quantities. This results in imposing variable capital charges depending on the rating of the holdings or easing the insurance conditions or disclosure requirements for securities assigned by a high enough rating. An example of this, is a downgrading of a bond issue below the investment grade will force the market managers to restructure their portfolio and also may well cause a forced liquidation of assets.

Access to capital markets : The financial cost and the availability of funding in capital markets is inextricably linked to the borrower's rating concerning his creditworthiness. Consequently, the access to some financial markets is restricted to issuers in the case that their rating exceeds a certain threshold. Examples of this situation is the Money Market Funds in the USA

or elsewhere that are required by law not to invest in paper that its rating is below a certain threshold. Yet, access to wholesale funding markets is typically restricted to entities with a sufficiently high short-term credit rating.

The same thing is happening in secured markets and repo funding which they rely heavily on credit ratings. As it has been observed by Gorton and Metrick (2010) in the period before the crisis banks' demand for secured funding from the parallel banking system has been increased and this has led consequently to the increase to the demand of high quality collateral that as it is mentioned before this is determined by credit ratings.

Regulatory capital requirements for banks security firms, insurance companies-Basel II: It consists the most pervasive use of credit ratings in regulation. Rating-based regulations affect banks, insurers, pension funds, mutual funds and broke dealers. Their main use is to prohibit the purchase or the hold of bonds with rating below the investment grade; thus below BBB. As a result rating-based regulations are responsible for the capital changes. Significant part is the innovation of Basel II in the Standardised Approach for calculating regulatory capital requirements for banking institutions, that incorporates internal as much as external ratings. The external credit rating agencies that can produce those ratings should be recognised institutions. Agencies should satisfy the following criteria in order to be recognised as ECAI (recognised External Credit Assessment Institutions) and to be able to determine the regulatory capital standards for banks: objectivity, independence, international access, transparency-disclosure, resources and

finally credibility. Recently with under the regulation in Basel III these criteria have been even more strengthen. Ratings that are produced by ECAI are used for exposures that the bank has not received an internal model approval and for all rated securitisation exposures held.

3.4 Hardwiring effects

The hardwiring effect of credit rating agencies in regulatory framework and in a variety of financial contracts combined with the over-reliance that investors show in credit ratings can cause significant effects in the financial sector as a whole. For instance, a simple downgrade of an entity could have several other impacts as it could lead to the exclusion of some market participants of certain wholesale markets, increase the amount of collateral calls or even forced selling by fund managers.

The severe impact that rating changes can have in the economy are amplified by the presence of ratings in regulatory capital requirements. More specifically, the use of ratings for regulatory and other official purposes can distort the demand for particular market products and this may well exacerbate procyclicality.

Furthermore, hardwiring may reduces investors' incentive to gather private information as they fully rely on the credit rating agencies' privileged access to the issuer's information. This fact is also a result of the over-reliance that investors show to the ratings that are assigned which is even

more enhanced by the fact that ratings exist in regulation. Overall, the hardwiring into the regulation generates moral hazard and also gives the impression to the market participants in general that credit ratings are in some way true and official. As a result hardwiring contributes to the increase of the over-reliance on the external credit ratings.

Even if it was proved that credit ratings are not completely accurate, investors' over-reliance on them would still exist as credit rating agencies have large impact on the price. As a result, investors put lower weight to their individual forecasts than on ratings and this would lead to the price's excessive reliance on credit ratings. Moreover, credit ratings can have disproportionate effect on market prices. This is happening because despite of the fact that a credit ratings agency might have more information than any other market participant, the market as a whole might be less informed and as a consequence the price less useful because it would be an outcome driven by the opinion of one rather than the balance of opinion of many.

Another effect the hardwiring of the credit ratings can cause is that it amplifies the investors' "herding behaviour" (more about this in chapter 5). In few words, "herding behaviour" is an outcome of the mechanistic use of the credit ratings and it means that investors act and take decisions only by observing the credit rating and without making their personal evaluation for the entity. Hardwiring makes different market participants to be constrained to identical rating-linked rules or to be subject to identical rating-linked regulations so it is logical that these different market participants would be expected to have identical reaction to the rating changes.

3.5 Hardwiring or Flexibility?

When there is a downgrade of an asset then regulation and guidelines directly impose an automatic liquidation of the specific asset as a result of the existence of the credit ratings in regulations. However, this fact seem to be less common than it used to as supplemented flexible rules have been increased that allows the fund manager to keep the downgraded assets in his portfolio as long as these assets consist a small percentage of the whole portfolio or even to dispose them over a certain time period.

Flexibility from one side can be a positive effect because of the fact that it decreases massive sales that have a serious negative effect and cause prices fall. From the other side, even only the expectation of such liquidation in a certain time period, although it is not followed immediately after the downgrade event can bring forward much of the price impact. So, increased flexibility in the reaction of the rating events can be seen as a transformation in the portfolio management from "buy or hold" approach to "mark-to - market" approach.

Overall, it is crucial to strike the right balance and to find the optimum combination between the benefits of monitoring and discipline that credit ratings can provide and also the flexibility that market participants need in order to react better in the rating changes and to avoid other unwanted market effects as it is mentioned above such as prices fall. Consequently, in order to avoid the fact in which rating changes become automatic powers of portfolio

restructuring and asset liquidation it essential that when credit rating take part in the regulation and rules and form potential behaviours, to exist enough supplemental rules that offer flexibility.

3.6 Reducing ratings' over-reliance and hardwiring

From above, we can draw the conclusion that if over-reliance on ratings, especially in the case that they consist a component to various regulations, was reduced then credit ratings would continue to be used for their initial purpose, thus for their information content, and as a consequence there would not be either severe effects on the market prices or incentive problems.

In order to reduce the reliance on credit ratings in the regulatory framework a number of criteria have been proposed by USA banking Federal regulators ANPR (Advanced Notice of Proposed Rule-making) including accuracy, timeliness, transparency, reliability.

One possible alternative approach has been taken in Basel II which indicates to put much more emphasis and reliance on internal risk assessments that they currently used by major firms as a supplemental to external ratings when the latter are not available. Important prerequisite for the success is that significant resources to be devoted both to increase the sophistication of firm's internal models and also to enhance supervisor's capacity to validate them. Furthermore, it is definitely necessary for financial

institutions to have better access to credit information from issuers or borrowers and that their tools and the processes that they follow to be further developed.

Other alternative approaches have been proposed in order to credit ratings to be entirely removed from regulations. Such approaches are the use of other market-based indicators such as CDS premia or credit spreads. Although it seems to be a effective solution those indicators have many drawbacks as they are composed by a variety of factors and as a result their credit impact is difficult to be observed by price movements. Moreover, they tend to be procyclical as they are slow to respond to credit-relevant developments. On the other hand, indicators based on non-market based measures have been judged that they are not able to distinguish accurately between credits.

Possible solution to the problem might be the use of measures that combine the objective market-based measures and non market-based measures with credit rating agencies or other internal assessments. Indicative example of these measures might be a dual ratings approach that takes into account both external and internal ratings. These measures would succeed to reduce the dependence on credit rating agencies but again their viability will be depended on improvements in disclosure and in firms' internal credit assessment capacity.

Finally, the best solution in order the effects of the hardwiring of the credit ratings to be diminished is the one that have been also used by the organisation of state insurance regulators in the US (NAIC). This approach

includes the outsourcing of the credit assessment to a non-credit rating agency. The third party's assessment would be adjusted to the regulatory framework and it would not be used otherwise in the financial markets so as the changes in the third party's assessment would not have the tremendous impacts and direct implications outside of the regulatory framework. To sum up, this approach is expected to deliver as good as credit rating agency's ratings and without any bias, as long as, the chosen third party produces ratings only for the regulator.

Moreover, mechanistic reliance caused by the existence of ratings in regulations should be reduced in the private sector. Analytically, all market participants should be encouraged to review the reduction of the over-reliance on credit ratings for actions such as collateral agreements, investment mandates and other financial contracts.

For instance, major fund managers should be encouraged to conduct their own internal credit assessment and in addition smaller fund managers should be subject to disclosure the requirements that set out the extent to which they have relied on the credit ratings.

To sum up, the rating's hardwiring of regulatory and market rules, bond covenants, investment guidelines and so on, influence a lot the market by leading to the magnify of threshold effects. By historical facts the regulatory use of ratings has been increased and furthermore it has been given a boost by the Standard approach in Basel II and the European Capital Adequacy Derivative. That excessive use of ratings for regulation purposes is revealed by the fact that there is greater use of the investment grade point by fund

managers.

Undoubtedly, the more market participants use the identical rating regulation, the more identical reaction is likely to be caused. Furthermore this reaction may cause liquidity pressures.

There have been made several efforts in order to reduce the hardwiring of credit ratings into the regulation. Recent enhancements of the CRAs' regulation have proposed their improvements of their governance, transparency and accountability hoping that these further measures would help to manage any adverse consequences of the credit rating agencies influence.

CHAPTER 4

4.1 Credit rating agencies and procyclicality

There are many critics of the credit rating agencies that argue that ratings have severe economic impact in the financial markets because they exhibit procyclicality. More specifically, they claim that CRAs contribute in the magnitude of the business cycles due to the fact that sovereigns are upgraded during periods of growth and expansion and tend to downgraded during periods of recession. The "big three" credit rating agencies (Moody's, S&P and Fitch), as it has been mentioned in chapter two, clearly mention in their policies that they rate with a view across the business cycle, (thus, they rate "through the cycle") and therefore their ratings are not significantly affected by cyclical influences. In other words, CRAs claim that their credit ratings depend only on the underlying characteristics of the rated entity and furthermore, they are independent of the state of the business cycle.

As it is clearly underlined in their rating methodology:

“The idea is to rate "through the cycle". There is no point in assigning high ratings to a company enjoining peak prosperity if that performance level is expected to be only temporary. Similarly, there is no need to lowering ratings to reflect poor performance as long as one can reliably anticipate that better times are just around the corner.”(Standard &Poor’s)

4.2 The time horizon of ratings

Without a doubt, credit rating agencies want to ensure that their assessments do not consist a short-term outcome but in contrast, they should be taken into consideration over a longer horizon (longer horizon stands for two business cycles as it is generally approved).

Credit rating agencies have been heavily criticized for their vagueness concerning the specific time horizon as they support that time should be indefinite or in the best solution considered as five to ten years. The reason that they give for that is that given a constant rating, the probability of default varies under different time horizons. However, it has been found by academic studies (Keenan 1999) that if it is assumed for their rating assessments that CRAs' have been always used a time horizon of several years then their various statements there have been always consistent. This means that over a long-term period, ratings have been found to be accurate and unbiased estimators of default probabilities and for short-term period there is no need of a detailed analysis of the default risk so ratings become an ordinal measure of risk. Finally, different rating agencies use different concepts of the loss but those differences do not seem to have any significant effect to that ratings outcomes.

Credit rating agencies support that although they may use market prices as a tool for rating assessment, they do not directly incorporate market sentiment into their ratings but on the contrary they do everything possible to

exclude it. The reason for this is that the majority of market participants and especially portfolio managers prefer ratings to exhibit stability, thus inertia, than a greater volatility that it is the result of the use of the market sentiment as an output.

4.3 The procylicality of the whole financial system

One of the recent highly debated issues due to the global crisis is whether the whole financial system is procyclical. Many commentators have supported that the whole financial system in which credit rating agencies are structural elements of it, acts in a procyclical manner. Procylicality in the financial system can be caused by several factors that are totally connected together such as information asymmetry, fluctuations in balance-sheet quality or over-optimistic/pessimistic expectations. An indicative example is the fact that measures of financial activity like bond issues or the eternal bank lending tend to increase more in period of economic booms than during economic downturns. Moreover, it is true that higher levels of economic growth lead to higher values of potential collateral, and as a result it loses the constrains concerning creditworthiness and makes the access to debt financing much easier. Another factor that contributes to the opinion that the financial system shows procyclicality is exactly the fact that market participants believe and react in a way as if risk does not react in procyclical manner. For instance, standards in getting a bank loan are much more lax during economic booms and strict during recession. A procyclical behavior in bank ratings can have

serious implication in an economic downturn and exacerbate an already difficult situation and deepen the recession as it would cause a blow in confidence in a period were the bank sector would be vulnerable because of the macroeconomic uncertainty .

However, credit rating agencies are not supposed in any way to be procyclical as their ratings have major impacts. Credit rating agencies have been designed in order to benefit long term buy and hold investors who are mainly concerned about the credit events that affect the bond's market value in the long term, for instance, affect the likelihood that the bond will be repaid in full at its maturity. Consequently, "through the cycle" ratings is supposed to be the rating agencies' way to measure the risk and moreover the success and the longevity of that risk measurement is highly valued by investors.

Credit ratings have a major role to the access of international capital markets that a firm or a country is able to have and also consist an important resource for obtaining funds to raise the level and thus accelerate the investment and growth. Instead, and because of the fact that the majority of the investments are based on them, there are supposed to clearly distinguish the relatively risk entities from the relatively safe. Actually, credit rating agencies in their policies insist that their ratings should be interpreted as ordinal rankings of default risk that are valid at all points in time and not as absolute measures of default probability that are constant in time.(Moody's Investor's Ltd)

It has been a lot of consideration about the relationship between the changes in the credit ratings that CRAs assign and the economic cycles. According to Amato and Furfine (2003) if the assumption that accurate ratings can been assigned before the movements in the financial markets is a reality then ratings would be extremely useful as they would indicate during an economic expansion the emerge economy that faces difficulties and therefore the capital would be immediately invest there. A downgrade in a period of expansion and growth would disappoint the investors that they had many expectations and would reduce the likelihood of the country to experience a rapid growth.

Conversely, if it is assumed that the ratings are inaccurate then ratings would increase and exacerbate the economic cycle. A downgrade during a period of recession would affect businesses and cause the exacerbation of difficult situation and on the opposite, an upgrade during expansion would maybe create a dangerous level of over-lending to the sovereign.

But credit rating agencies have supported that they use all the public available data and information when they come to assign a rating especially sovereigns. Given that we can easily come to the conclusion that credit rating agencies will always remain behind the market.

4.4 Credit rating agencies and the Asian crisis

CRAs have been blamed that have aggravate the Asian crisis in the past, significantly in the late 1990s when their sovereign ratings had intensified market emerging market currency crisis repeatedly. The Asian crisis is one of the most indicative examples that shows that credit rating agencies having been procyclical as it has been claimed by many commentators and policy-makers. During the period from June 1997 to November 1998 several Asian countries (India, Korea and Thailand) have been downgraded deeply from four to eight levels. Credit rating agencies have received a lot of criticism that they failed to forecast the upcoming crisis and thus they should have foreseen the economic problems and should have downgraded those East Asian countries before and not during the crisis. Notably, the International Monetary Fund has highlighted the fact that the credit rating agencies had reacted late when they downgraded the Asian countries. So, as credit rating agencies lagged instead of leading in the market, and moreover they over-reacted during both pre-crisis and post-crisis periods by downgraded the affected market to junk bonds which had generated the accusation that CRAs helped in the amplifying of the crisis.

4.5 Literature and empirical evidence concerning CRAs' procyclicality

There is a lot of empirical evidence on the procyclicality of the credit rating agencies. Ferry, Lui and Stiglitz, for instance, have used a sample of 17

Asian countries from 1989-1998 to create a model of Moody's ratings as a function of explanatory variables which were derived from the Cantor and Packer study (1996).The main purpose of that study was to determine on which extent credit rating agencies have been procyclical in the Asian crisis and as a consequence they helped in the exacerbation of the crisis. Analytically, in their paper they transformed the alphanumeric system that Moody's use for the credit ratings assessment to numerical scale in two different ways. In the first, they match linearly the twenty grades to a scale from 100 to 5, with 100 corresponding to Aaa (the highest) and 5 corresponding to Ca (the lowest). In the second, they use a non-linear model which convert according to the relative increase in spreads that happen when a credit rating grade changes.

After running their linear regression model (independent variable: Moody's rating, dependent variables: PPP GDP per capita, real GDP growth rate, CPI inflation rate, overall budget deficit as %, current account balance as % of GDP and external debt to exports of goods and services) they found that all the explanatory variables have the signs that it was expected and most of them are significant with the exception of GDP per capita and the inflation rate. After that they proceed on plots were they identified the differences between Moody's minimum assigned ratings and the predicted rating by the model, described above, which was based on the mentioned economic fundamentals. Based on that study, it is proved that credit ratings are procyclical. The outcome is the result of the fact that before the crisis the actual ratings assigned for the Asian countries were on average consistently

higher than those based on the model. On the contrary, after the crisis the ratings were much worse than the predicted ratings from the model. Taking Korea and Thailand as an example, before the crisis they were assigned by a Ba1 rating and given that and according to the model they should have never fallen below Baa3 which is the investment grade for Moody's. So credit rating agencies are accused that by excessively downgrading those countries they amplifying the crisis much more that their worse economic fundamentals and their difficult situation would justify. Another outcome of the Ferry, Liu and Stiglitz study was that in 1998 the difference between the predicted rating and that actual ratings was very small. This generates the suggestion that credit rating agencies have been excessively conservative for the Asian economies. Finally, the authors concluded that credit rating agencies should have use more qualitative factors in their assessment. That lack of qualitative factors is the main reason and cause of the procyclical nature of the credit ratings.

Furthermore, many other empirical studies have looked the credit spreads before and after a downgrade by a credit rating agency in order to note and evaluate their impact in the market. Cantor and Packer (1996) in their empirical analysis found that credit ratings affect significally markets as the announcements of credit rating agencies are followed by significant changes in spreads and that 92% of the variation of the credit spreads can be attributed to the rating agencies. Also, authors found that Asian countries have been excessively downgraded compared to the predicted sovereign ratings which were based on economic fundamentals (the same model used

by Ferry, Liu and Stiglitz.)

In another empirical study, a 10 day window event study, by Kaminsky and Schmukler the evidence of which also supports the hypothesis that ratings agencies contribute to amplify the boom-bust pattern in emerging patterns. In their research they found that sovereign debt rating changes and more specifically downgrades happen when the country is already collapsing. That means that upgrades occur when the market is "rallying" and downgrades when the emerging market have already collapsing.

Nickel et al study (2000) examines the probability of the transition of the bond in two different circumstances; firstly under a given rating and then with a change in the rating in a finite time period conditioning on the state of the business cycle. The results have shown that during periods of recession downgrades are much more frequent whereas during economic growth more upgrades happen to occur. However, it is important to be mentioned that in that study it was not taken into consideration the true underlying default risk which may be procyclical so the conclusion taken from this study is that ratings move procyclically and not that they have procyclical manner.

Finally, Philip Turner (Center for Economic Policy Analysis) in his working paper states that credit rating agencies in the Asian crisis have clearly marked procyclicality and moreover they were backward-looking rather that forward-looking. The justification of that statement is given by Monfor and Mudler (1999) who proved that the sovereign credit ratings exhibit strong negative correlation with the real effective exchange rates, thus a downgrade in the beginning of a crisis leads to another downgrade.

4.6 On the defense of the credit rating agencies

According to Nada Mora's view as opposed to Ferry, Liu and Stiglitz study first of all he claims that it is questionable whether the credit rating agencies have all the significant power in order to influence market expectations of a country or they are simply reacting to the available current information. Furthermore, he expresses his doubts concerning credit ratings procyclical manner on the Asian crisis and on the contrary he proposes credit rating's inertia. In his study he uses the Ferry, Liu and Stiglitz model and predictions for the procyclicality manner of the sovereign credit ratings and he proposes limitations and further specifications.

In his paper, underlines the fact that despite the massive criticism that they have been accepted on the grounds of non-effectiveness and possible guilt, the Basel II proposals have increased the role and the use of credit ratings as they allow banks to use external or internal ratings in the determination of the capital that they need for different types of loans. According to the previous statement it is easy to come to the conclusion that credit ratings still consist the second-best solution and because of their excessive availability and their use will definitely improve current Basel standards. Also Mora notes that credit ratings that CRAs assign undoubtedly should be of some value otherwise it would be very weird the fact that so many investors pay in order to be subscribed to their credit reports.

Moreover, Mora clearly states the problem concerning the sovereign ratings that although their use is to capture the probability of default of a sovereign debt it is difficult to assess ex post that the rating was "good" as countries unlike firms rarely default. This is because of the availability of the international emergency credit and the high cost of future credit in case they default. For the defense of his argument he uses data of 15 countries that have defaulted on foreign currency bond debt by Standard & Poor's and he shows the minimum rating that was given to each country a year before the default and during the default. Mora notes three significant points; firstly that the number of countries that have defaulted since 1975-2002 is very small, secondly the paucity of ratings figures that clearly shows that defaulting countries were not even likely to be rated which would seem to defy the point of being ratings and finally despite the fact that all rated countries are rated below the investment-grade prior and during the default only four countries (Russia, Ecuador, Argentina and Pakistan) were rated with default status.

Based on his study the author claims that credit ratings are "sticky" rather that procyclical. Mora used the empirical study by Ferry Liu and Stiglitz as a benchmark. However, he stated his objections concerning the use of macroeconomic variables in the construction of the model as credit rating agencies haven't offer a transparent list of what determines ratings and their changes. The author is opposed to the Ferry Liu and Stiglitz view believes that it is not possible to assume that the quality of credit ratings can be captured by the linear regression with as small set of macroeconomic variables but as he firmly believes in cases when ratings differ a lot by their

fitted values may well reflect mis-measurement of fundamentals, non-linearity, data-timing problems and other potential misspecification problems.

4.7 Ferri, Liu and Stiglitz specifications and doubts

Mora has pointed out some specification problems concerning the empirical evidence of Ferri, Liu and Stiglitz about procyclicality on the sovereign ratings. Among these, is the fact that it is used the minimum Moody's rating in a year instead of the average. This contributes to the differences between model generated ratings and actual ratings. According to Mora, it is very possible errors to be made when the dependent variable is the minimum rating for the year and on the contrary the explanatory variables reflect values over the entire year.

Second problem in the Ferri, Liu and Stiglitz study, are the random effects that are used and that from an econometric view there are not preferred. Generally, it is hard to be justified that a country 's individual effects are uncorrelated with the independent variables. The disadvantage of using fixed effects is that reduces the degrees of freedom and thus it is not sufficient, but on the other hand, using random effects when the real model is fixed leads to inconsistent estimates.

Furthermore, as a third problem, it is supported that in the FLS model the potential influence of non-macroeconomic variables such as market sentiment and default history has been neglected and this may also contribute

to large prediction errors. Mora used as a proxy a sample of development countries with available Eurobond spreads or available EMBI spreads and he studied the possibility whether spreads are endogenous to ratings. He concluded that ratings react passively to the market and consequently, ratings are just react into the movements of the market and they are not induce them.

In addition, Mora introduced dummy variable of default history and spreads in the existed FLS model and the result was that they are significant. The results of the FLS model (without the dummy variables) shows that for many of the countries predicted ratings recover faster than assigned ratings after the crisis period.

In contrast, the results from the ordered probit model that takes into account the spreads and the default history shows that the assigned ratings follow the predicted ratings for the Asian countries during the crisis but they were higher before the crisis and they remain in a low level after the crisis. Especially in the case of Turkey and Russia, as it is highlighted by Mora, that the predicted rating which was based only on macroeconomic variables was higher than the actual rating on 1995-2001 and thus the predicted rating that included spreads and default history was closer to the "pessimistic "ratings.

These results do not support FLS evidence concerning procyclicality on the credit ratings but they clearly suggest that credit rating agencies behave in a conservative way after the period of the crisis which is the reason of the inertia that characterizes the ratings. According to Mora there

might be some fixed costs charged to the credit ratings agencies when they change an assign ratings so it needs a sufficient large amount of either good or bad news in order to change their opinions. Moreover, rating appear to be affected not only by macroeconomic variables but from market sentiment and default history as there are some fundamentals that are only captured by qualitative factors, for instance, the political factors.

A further problem on the Ferri, Liu and Stiglitz model is its linearity and consequently Mora in his paper proposes an ordered probit model . According to his view, the discrepancy of the linear model is found in its restrictive nature that treats the difference, for example, between an Aaa and an Aa1 the same as the difference between an Baa3 and a Ba1.The results of the probit model indicate that the GDP per capita, growth, inflation and external debt have the expected sign and there are all significant.

Overall, from the above, Mora supports that the accusation towards rating agencies are not tenable. As it has been mentioned before, ratings that are not including countries' fixed effects rating agencies' behave in a "sticky" rather than procyclical manner. Mora supports that assigned ratings have been conservative during the Asian crisis. Yet, it is true according to both opinions (procyclicality and inertia) that assigned credit ratings exceeded the predicted ratings in the run-up of the crisis but unlike the FLSs' empirical study predicted ratings converged to the actual ratings during the financial crisis. The advantage that Mora's study has is that in order to reveal ratings' inertia, he extended the sample period to the post-crisis period up to 2001. In

that period, it was found that predicted ratings were higher that the assigned ratings. This result clearly suggests that although credit rating agencies succeed to capture the crisis they are over-conservative after the crisis. Crucial fact is that without take into account country fixed effects predicted ratings are found to be higher than the actual assigned. that clearly indicates that credit rating agencies include qualitative factors when they assign sovereign ratings such as country's default history and lagged spreads and they do not take into account only macroeconomic variables.

Finally, Mora in his paper supports that given the hypothesis that credit ratings are sticky then they do not really have a major impact in the market because they do not reflect much of the new information. Of course he underlines the fact that the excessive use of ratings and specifically in ways to distort the capital allocation will affect and harm a lot the market. Especially, their use for regulatory reasons such as in Basel II(for determining risk weights for bank loans) should be carefully evaluated.

4.8 Measures and policies proposed to deal with procyclicality in rating agencies

Credit ratings without a doubt consist an important part of the economy and the financial system and moreover they have a lot of value in capital markets. As a result it is vital that the procyclical manner of ratings agencies to be confronted with more frequent rating updates which they would probably reduce both the impact of downgrades and the "time-lag" by which

credit ratings fall behind market events. Moreover, more frequent announcement of the rating changes would cause a "smoother" reaction of the yields and generally of the market as investors would know that ratings reflect the current economic fundamentals.

Another effective measure to mitigate the effects of the procyclical manner of the rating agencies would be to enhance the transparency of their methodologies that they use in their assessments and increase the public disclosure of the used information and data so as both investors and rated entities to become aware of the details that influence the final rating decisions. Furthermore, the increased transparency will definitely assist banks and governments to make a plan in order to prohibit a possible downgrade or mitigate the effects of a downgrade.

CHAPTER 5

5.1 The role of credit ratings in the EMU debt crisis 2009-2011

From late 2009, a sovereign debt crisis has been developed among investors, concerning some European states and it was intensify in 2010. This included eurozone members, the so-called PIGS; Portugal, Ireland, Greece, Spain and recently Italy. By mid 2011, Greece Ireland and Portugal had accepted financial assistance from other EU Member States and the International Monetary Fund. Especially in countries where sovereign debts have increased, a crisis of confidence has emerged with the widening of bond spreads and risk insurance on credit default swaps between these countries and other EU members, most importantly Germany. Despite the fact that the sovereign debt increases have been observed in only a few eurozone countries, they have become a perceived problem for the European Union as a whole.

Many politicians and governments across Europe have been working to restore the lost confidence in these economies in order to prevent market concerns to be spread across the rest European economies. Great attention has been drown to the role of the credit rating agencies which have been blamed that consist an active driving force during Europe's sovereign debt crisis as they have severely downgraded the Greek, Irish, Portuguese, Italian and other EU economies. Credit rating agencies have received a lot of criticism in the past and specifically after the banking collapse in 2008, for rating wrongly certain financial products, and thus contributing to the

severity of collapse. Currently, and with their reputation not still recovered, they are accused both for failing to predict the crisis in the Euro area, as they also did in the Asian crisis, and then for precipitating and exacerbating the situation by downgrading the sovereign ratings of certain members of the EU too fast and too far.

Since proper and effective enough mechanisms do not really exist in order to control the correspondence of the ratings that CRAs assign, with the private information that they hold, the quality of ratings depend entirely on their efforts to build up and maintain good reputation. However, the reputation effect is not always enough to guarantee correct ratings. As a result, many commentators and policy makers support that rating agencies have amplified in the EMU debt crisis since their bad ratings, which, as they claim, they are not in line with economic fundamentals or their private information, could be justified ex post via self-fulfilling prophecies. In other words, the bad ratings that CRAs assign, result in significantly higher interest rates on government bonds which themselves aggravate and impede the orderly resolution of the European debt crisis through policy initiatives. Indeed, rating agency's downgrading actions can exercise a disproportionate influence on markets, exacerbating already fragile situations. Furthermore, it has been implied that the self-fulfilling impact on financial ratings disturbs the incentive to reveal the real private information in such a way that it might be of agencies' interest to misrepresent the country's creditworthiness. Finally, credit rating agencies have been accused that their downgrades merely reflect the seriousness of the situation that some member states are currently facing and that most of the times have followed the market

sentiment.

5.2 Criticism that CRAs receive and the provoked problems; additional regulation comments and special amendments

Concerns have been raised by European Commission who has recognised the significant role that rating agencies play as a consequence of their ratings' importance on the capital market, and therefore the need of a supervisor power to be established in order to ensure that CRAs provide high quality, independent and objective credit ratings. For this purpose CRAs Regulation was adopted on April 2009, (entered in full application on December 2010) which introduces mandatory registration and on-going supervision for all credit rating agencies operating in the European Union. Under the established Regulation, CRAs should fully comply with all the rigorous rules of conduct, in order any possible conflicts of interest to be averted and to ensure high quality and sufficient transparency of ratings and the rating process. Moreover, on May 2011 an amendment to the CRA Regulation was adopted, which made the European Security Markets Authority (ESMA), a European Supervisory authority that was actually established in order to improve EU supervision towards them, to have direct supervisory powers over credit rating agencies.

In few words, ESMA is responsible for:

- **The registration and supervision of credit rating agencies**.
- **Day-to-day supervision**. To monitor that rating agencies comply with the rules that have been established by the CRA regulation.

ESMA has the discretion to request all relevant information, to examine records and to conduct on-site inspections.

- **Take appropriate supervisory measures**. If it discovers a breach of the rating agencies Regulation, then ESMA is able to withdrawal the registration, but of course it depends on the severity of the breach.

Crucial part is that although several efforts have been made in order to control as much as possible CRAs activities there is still a number of issues related to rating agencies and to their ratings that are not addressed in the existing CRA Regulation and there are claimed to be responsible for the exacerbation of the EU debt crisis. The issues that have caused a massive criticism towards credit rating agencies are related firstly to the risk of **overreliance on credit ratings** by investors and generally financial participants, **the unsatisfactory level of transparency in monitoring, the vague methodology and process of sovereign debt ratings, the high degree of concentration in the credit rating market** (as the market is dominated by the three big rating agencies with combined market share over 95% globally), **not enough civil liability of the credit rating agencies** and finally, **the problems in the way which credit rating agencies are remunerated** .

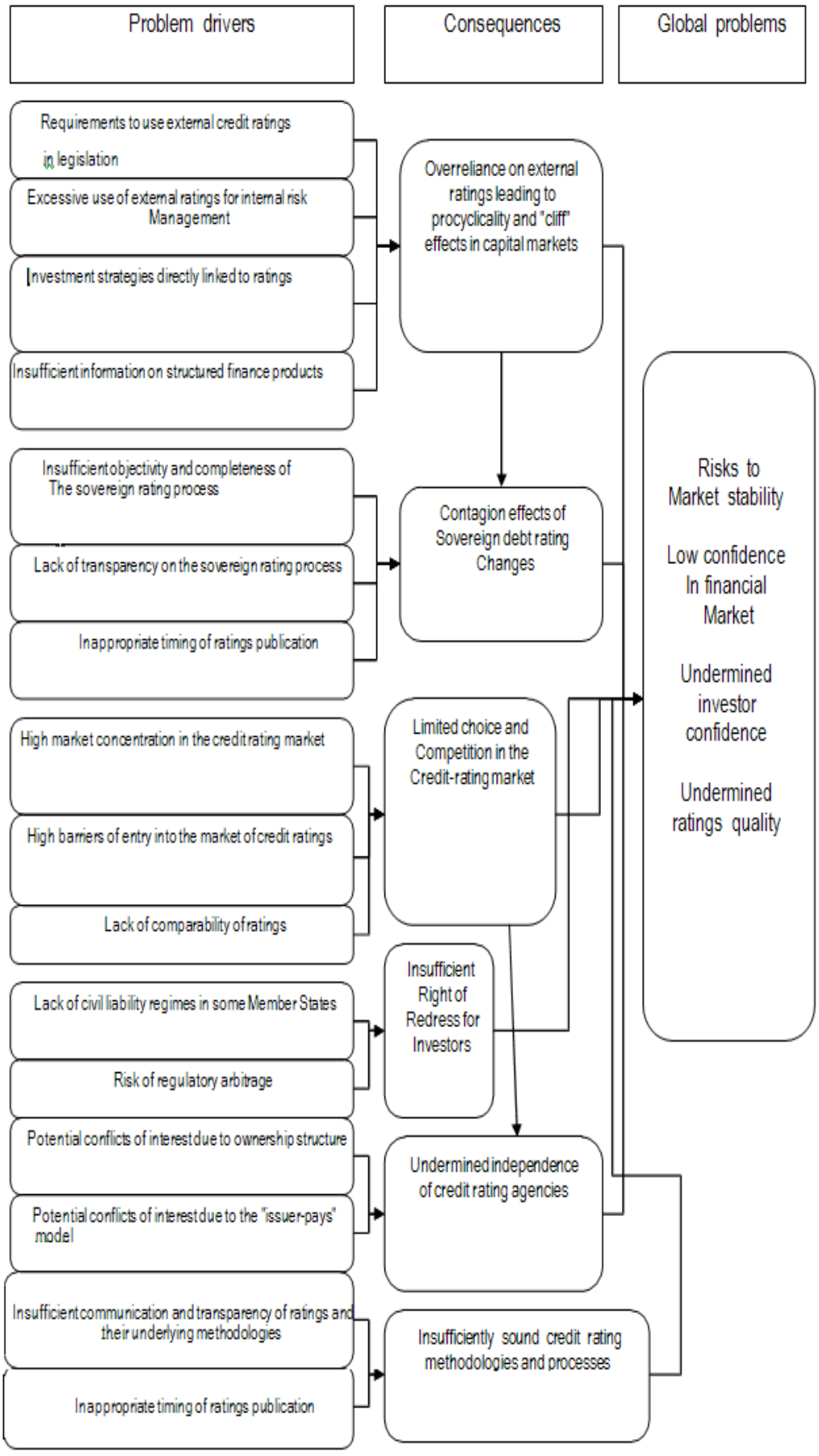
During the recent Euro debt crisis CRAs have been accepted a lot of criticism with regard to the transparency and quality of the sovereign debt ratings and the question was raised whether the EU Regulatory framework for CRAs needed to be further strengthened to address this. Also, in order to be protected by the serious downgrades and damages that rating agencies

cause in the European economies, it was considered to entrust an EU agency with the registration of CRAs.

According to Commission's staff working paper (Proposal for a regulation amending Regulation (EC) No 1060/2009 on credit rating agencies) the problems, concerning CRAs that intensify the recent financial crisis can be grouped into the following broad areas:

- Over-reliance on external credit ratings leading to "cliff" effects in capital markets.
- "Cliff" and contagion effects of sovereign debt rating changes.
- Limited choice and competition in the credit rating market.
- Insufficient right of redress for users of ratings suffering losses due to an inaccurate rating assigned by rating agency that infringes the CRA Regulation.
- Potentially undermined independence of CRAs due to conflicts of interest arising from the "issuers-pay" model, ownership structure and long tenure of the same CRA.
- Insufficiently sound credit rating methodologies and processes.

Additionally they can be depicted in the following diagram Pic (5):



In the following section, the problems outlined above, that as it is implied affect and exacerbate the recent European debt crisis are analytically described.

5.2.1(i) Over-reliance on external ratings

This problem is based on the great concern that the majority of financial institution and institutional investors rely too much on the external ratings and do not carry out sufficient internal rating risk assessments. Investors often place great weight on the corporate ratings produced by external credit rating agencies because they assume the ratings agencies have privileged inside information. Over-reliance on credit ratings has led to, as it has been named, "herding behaviour" which means that when debt instruments, such as sovereign bonds, are downgraded below a certain threshold many inventors react mechanistically to this rating action by selling off their debt instrument at the same time. This behaviour has a potential negative effect for the financial stability as it increases the market volatility and causes a downward spiral of the price (the "cliff effect") of the debt instruments.

Another danger of over-reliance in external ratings is that developing countries that are downgraded during a crisis are harmed twice. Firstly, because of the fact that they will be expose to higher risk-weights used by international lending banks and secondly, due to the higher risk-weights in domestic bank lending to major corporations which may also have been

downgraded in the crisis.

Generally, the market participants' over-reliance on the external credit ratings has been detected in three main areas:

- For the calculation of certain regulatory limits and capital requirements for financial institutions. (Notably, the Capital Requirements Directive uses external ratings in calculation of capital requirements especially in the context of the standard approach and for securitizations.)
- For internal risk management purposes by financial firms.
- Investment policies and asset managers.

It is a fact, that institutions have the choice of either using external or their own internal credit ratings in the context of regulatory large exposure limits and their capital requirements. However, in certain instances and to the extent that they are available, the use of external ratings is explicitly envisaged by the Capital Requirements Directive, especially for securitization positions. On the contrary, in the insurance sector "Solvency I"(framework of insurance and reinsurance) doesn't contain any reference to external ratings as there is no credit risk charge for the solvency margin and the same is happening to the "Solvency II" Framework. Capital requirements are calculating using a standard formula which design includes the market risk module and the counter-party default risk module. This standard formula capital requirement will be set out in order to contain future implementing measures which are currently being developed. In the fifth Quantitative Impact Study(QIS5) (NOTE: It has been conducted by European Banking Authority to analyze

the impact of the new requirements aiming at raising the quality and level of the capital base, enhancing risk capture, containing excessive leverage and introducing new liquidity standards for the global banking system, referred to as "Basel III") which is being carried out, the external ratings are used in the calculation of the standard formula but according to QIS5 technical specifications this fact does not prejudge the final decision concerning the final design of the standard formula.

The facts mentioned above indicate that Regulatory capital frameworks contain explicit reference to external credit rating (credit ratings hardwiring-Chapter 3). This could easily give the impression to firms and to investors that those ratings are officially approved and that they can undoubtedly and fully rely on them. However, the complete elimination of the external ratings reference would not consist in any way a solution as there are no other alternative measures of credit risk without any kind of drawback that could be used instead by all financial firms.

Several solutions have been proposed by European Commission in order to exceed the problem caused by the over-reliance and the excessive use of external ratings for the calculation of several regulatory limits and capital requirements. Some of them contain the use of internal models for the calculation of capital requirements for credit risk mandated by regulation, the use of at least two external independent rating agencies in order to obtain a more accurate assessment of the credit risk evolved, use of other measures of credit risk such as market-based data (market expectation of default as reflected in bond prices, Credit Default Swap spreads, or capital/solvency

ratios). Lastly, for securitization exposures, institutions undertakings could be required to base their capital requirement on the analysis of the credit risk of the underlying pool.

5.2.1(ii) Over-reliance: external ratings for internal risk management purposes

EU legislation requires that regulated financial firms should have an effective risk management system in order to identify measure and monitor credit and investment risk. The provisions of EU legislation on internal risk management does not refer at all to the use of external ratings so it does not explicitly exclude that firms should not rely on them in full or partially for their internal risk management .

The main measures proposed by European Commission in order to address the problem of over-reliance risk and to oblige regulated financial firms to individually assess the credit risk of the assets that they are investing in, are a special introduction in the financial sectoral legislation that encourages firms to carry out their own risk assessments and explicitly obliges them not to rely mechanistically and fully on external ratings and firms to have access to all necessary information which this disclosure might be very helpful to small or less sophisticated firms.

5.2.2(i) Sovereign debt ratings

Rating agencies have accepted a lot of criticism concerning their role in

the recent European financial debt crisis. Clear evidence is the fact that a downgrading of a country has the immediate effect of making the country's borrowing much more expensive or even more it can prevent country's access from external funding from international capital markets as in the case of Greece. Those "cliff effects", as it is mentioned before, are results from the over-reliance that financial institutions and institutional investors show on the sovereign debt ratings and they tend to exacerbate and precipitate the situation and lead to a price deterioration of the sovereign bonds.

Rating agencies have been accused to amplify the EMU debt crisis because it has been supported that they have overreacted in their downgrading actions without taking into account all the additional measures that have been taken in order to support the financially unstable Eurozone Member. Moreover, many doubts are raised on the transparency in the rating process and on the appropriateness of the methodologies and the models that are used by CRAs in order to assign a rating for the sovereign debt. Crucial fact is that some commentators support that rating agencies use considerable subjective assessment from rating analysts when it comes to rate a sovereign debt; indicative example consists when they assess the country's "willingness to pay". Finally, it is highly debated the timing that rating agencies public their ratings and moreover whether they have all the sufficient and adequate equipment and information in order to effectively and efficiently monitor and update their sovereign debt ratings as they claim in their policies.

Sovereign debt ratings have a huge impact on the country because of the fact that they cover the majority of its entities such as private firms,

public administrations, public sector companies and local governments. This means that a downgrade severely affects the magnitude, the cost and the conditions of the access to the external funding not only to the country but to all the other entities that are located in. So it is a clear fact, that a sovereign downgrade has a significant bearing on the funding magnitude and quality at the macroeconomic level.

Furthermore, despite the fact that the majority of the countries participate in the rating process not all of them are charged in order to have their debt rated. The fact that some countries pay in order to receive a rating generates concerns with regard to conflicts of interest. In other words, this fact puts into consideration concerning the transparency of the ratings as the rating agencies may have the benefit to assign more favorable ratings to the countries that pay the rating fee. Generally credit rating agencies do not have uniform remuneration policies for sovereign ratings.

In the articles 8 and 10-12 of the CRA Regulation there are all the provisions that they aim to ensure the transparency and the independence of the rating process and the high quality of the rating process and methodologies especially when it refers to a sovereign debt rating. A CRA should disclose all the methodologies and the models that have been used and has to explain each time it assigns or updates a rating on which methodology the process is based on. Additionally, a rating agency should indicate all the material sources it has used and all the limitation concerning the preparation of the rating and also the reasons that provoked the rating action. Also, according to the CRA Regulation, a CRA that issues a rating should inform

the rated entity at least 12 hours before the rating publication and also the entity should be informed about all the principle grounds on which the rating is based on in order to give to the entity the opportunity to draw the attention to the credit rating agency to any factual errors and to any new developments which may influence the rating. On the contrary, in order conflicts of interest to be prevented and the independence of rating process to be ensured, there is a provision that prohibits supervisory or any other public authority from interfering with the content of credit ratings.

Because of the fact that it has been fully recognized the vital role that sovereign debt ratings play, European Commission has proposed further measures in order to enhance and to strengthen the transparency the quality of those ratings. Several of the proposed measures are an extension of the period that the rating agency is obliged to inform the country from 12 hours to 3 days with the restriction that a limit number of people would be informed in order to limit the risk of market abuse, free of charge disclosure of additional figures on their allocation staff and also all the full research report (not just an indication of the key elements) so as investors to be better informed and consequently to have more balance reaction to the specific rating. Finally, it has been suggested that CRAs should reduce the time period under which sovereign debt ratings are reviewed to six months.

5.2.2(ii) Requirements on the methodology and the process of rating sovereign debt

As it has been previously mentioned all rating agencies are required under the current framework to disclose all the relevant models and methodologies that their sovereign debt rating has be based on and to explain their methodology every time the update their debt rating. The CRA Regulation identifies a number of the qualitative requirements that rating methodologies must comply with and it underlines that they have to be rigorous, sound, continuous and subject to validation based on historical experience.

Remuneration policies for the issue of sovereign ratings are not uniform across all rating agencies. The majority of European Members provide information to the rating agencies in the context of the sovereign rating debt process but not all of them pay fee for obtaining the sovereign rating. In order potential conflicts of interest to be mitigating European Commission has suggest an amendment to the existing CRA Regulation. This amendment includes that no European Union Member should pay for debt ratings, as credit rating agencies have a genuine interest and incentive to rate sovereign debt because it consists a very useful tool when they want to rate other entities based in that country.

Moreover under the CRA Regulation rating agencies are obliged to disclose any rating on a non-selective basis and in a timely manner. Another requirement that it has been proposed is that credit rating agencies should

publish their debt ratings only after the close of business of European trading venues. This measure has been proposed in order to reduce the risk of high intra-day volatility which occurs when there are published significant downgrades on sovereign debts during the trading hours and the risk of market abuse.

5.2.3 The high degree of concentration in the rating market

The credit rating agency sector consists of only a few large firms and it shows high entry barriers in terms of reputation and start up costs, so it can be considered as oligopolistic in nature. This low degree of competition has generate many concerns as far as the quality of the ratings because of the fact that the rating of countries, large multinational entities and structure financial products are in the hand of the three largest credit rating agencies; Moody's, S&P and Fitch.

The recent situation in Europe, with the eurozone scrambling to restore confidence in trouble nations like Greece, Portugal, Italy and Spain, and the way that credit rating agencies have dealt with that situation as they constantly downgrading the creditworthiness of those countries, generate great interest to the idea of creating a new independent, preferably European, credit rating agency in order to better balance regional views on the economy and to counteract the influence of the "big three" US-based agencies.

This new rating agency is planning to be established as an independent

non profit foundation and would issue its first sovereign ratings in the second quarter of 2012 and add bank ratings to its product portfolio in the second half of 2012. According to many articles in the press this European agency would differ from the "big three" in that its ratings would be financed by investors instead of the companies issuing debt. While the major US-based ratings groups typically charge a million Euros or more to rate a DAX-listed company, the new European body would charge less than half that amount. The costs of establishing a EU rating agency could be wholly or partially covered by the private sector. Furthermore in order to ensure professional autonomy of its management and staff and consequently its credibility such entity should be independent. The main role of public authorities would only be to ensure that the capital spending is assigned for the purposes for which it was created.

In German, there is a strong support for a new credit ratings agency to break the dominance of established rating agencies. Former Economy Minister Rainer Brüderle - who is now parliamentary leader of the pro-business Free Democratic Party - recently called for a reform of the ratings market.(AFP,Reuters).

Except of creating a EU credit agency, there are several other possibilities that can be explored in order the competition in the credit rating sector to be enhanced. European Commission has proposed that the ECB or National Central Banks could be encouraged to issue credit ratings with the condition that central banks cannot issue ratings concerning financial instruments issued by the central banks Member States. Another solution in

order to deal with the problem of high concentration in the CRAs sector is to enhance the entrance of new rating agencies by introducing substitutes for CRAs (creation of new credit rating agencies or either public or private entities to help stimulate competition in the credit rating agency sector)or by lowering the barriers of entry for new or existing credit rating agencies. Finally, it has been suggested the creation of a European network of small and medium sized CRAs which could collaborate to create a common rating platform by sharing best practices and resources, building best practices, expert knowledge and enhancing the quality of ratings.

5.2.4 Civil liability of credit rating agencies

According to CRA Regulation any infringement of its provisions by credit rating agencies should be made in accordance with the applicable national law of civil liability. The conditions under which any investors claim against credit rating agency is possible depends on each European member. In other words, the application of the CRA Regulation differs in each European country and varies according to the legal order of each member. This fact can possibly result in "forum shopping" when credit rating agencies choose jurisdictions under which civil liability for infringements of the CRA Regulation is less likely to happen.

Credit rating agencies should remain liable in any case, whether they intentionally or negligently infringe the provisions of the CRA Regulation because incorrect ratings can cause a huge damage to investors or that can have further impacts as it has been mention in the beginning of this chapter. Consequently it is an imperative need for a specific provision in the civil

liability of the credit rating agencies that can be introduced in the CRA Regulation. There has been a lot of consideration whether this provision would only apply when a credit rating agency has overrate so the investor has chosen wrongly to invest or if it should also include situations when credit rating agencies have rate negatively and the investor has chosen not to invest. This specific provision in CRA Regulation would be applied in both solicited and unsolicited ratings .

The problem of civil liability of credit rating agencies can cause uncertainty to investors and forum shopping. So it is an imperative need for a liability regime for rating agencies that would enhance correct ratings and also it would have a discipline effect on CRAs. Notably, credit rating agencies have recently refuse to assess structured finance instruments in reaction to the reinforced liability rules.

5.2.5 Conflicts of interest due to the "Issuers-pay model"

The issuers-pay model is the prevailing remuneration model among the CRAs and it has to do with the case where issuers solicit and pay for the ratings of their own debt instruments.

Undoubtedly the issuers-pay model entails conflicts of interest by its nature. As it has been discussed in chapter 2 of this thesis, when the issuer has the option to pay for the assigned rating only in the case that the rating is high enough to fulfill his expectations then it’s clear that in the issuers-pay model credit rating agencies have a financial interest to assign higher ratings than warranted in order to increase their revenues from the issuer. Especially

in the case that reputational concerns are not so strong then a CRA will choose to issue inflated and low-quality ratings in order to receive the present and the future fees from the rated entity.

There has been a wide consideration for alternative remuneration models in the credit rating agencies sector in order to mitigate the conflicts of interest. However none of the potential remuneration business models are 100% free of them.

- "Subscriber/Investors pays" Model: Investors pay the fee for the rating. There may well be conflicts of interest as some of the investors maybe be interested in lower ratings. Many experts doubt whether this model is able to provide enough resources for the CRAs in order to support and deliver high-quality ratings and to employ a sufficient number of analyst as investors are not always willing to pay.

- "Payment-upon-results" model: The performance of credit ratings upon time is used in order to determine the level of fees that credit ratings agencies may charge, given that ratings are forward looking by nature. This model may significantly increase investors confidence.

- "Trading venues Pay " model: Trading venues pay for the ratings of their listed companies. In the case of non-listed companies the "Investors-pay " model is applied.

- "Public utility " model: It consists of the creation of a public-created and managed rating agency that its duty is among others to check the credit ratings issued by private CRAs. Investors can compare ratings

assigned by private agencies with the public ratings.

- "Government as hiring agent" model: An independent agency that would compost of supervisors, investors, representatives of issuers and credit rating agencies would select a credit rating agency, at the basis of objectively defined criteria, to rate an issuer's financial instruments. However, the issuer will still remain free to either to secure no rating at all from the selected rating agency or to hire additional credit rating agencies . This limits the "rating shopping" the situation in which each entity chooses among others the most favorable rating.

Overall, the "issuers-pay" model is by far the dominant remuneration model and it is currently used by credit rating agencies. Specifically the revenue of the "issuers-pay" model represents the 2/3 of the total revenue of the rating agencies.

5.3 Being on the other side - credit rating agencies views

Credit rating agencies from the other side claim to have totally understand the difficult situation that Europe recently faces. They state that rating actions especially the downgrades that are published by CRAs and they consist their opinions are, by nature, subjects to market and media commentary while the opinions of other market participants on sovereign creditworthiness are not treated with the same scrutiny. In their reports they give emphasis to the important role that they play in the functioning of the markets but they declare that their ratings, whether they refer to a sovereign or corporate debt, are only statements of opinion about the relative future

creditworthiness of issuers and of credit risk associated with the issuer's debt and other related obligations and do not issue buy or sell recommendations. They firmly support that their ratings are only providing simple and easy ways in order to express credit and to assist in making informed credit decisions. Moreover, they act as a benchmark as they offer a point of reference which contributes to market efficiency and facilitates the access to capital markets.

According to their view, it is necessary to rate the sovereign debt for the reason that national governments are the largest capital markets borrowers accounting for more than 60% of the debt issuance (Moody's Investor Service Ltd). Consequently, they influence a lot the investors and their risk expectations and they capture a wide spectrum of them worldwide. Over the last decades their sovereign ratings claim to be empirically consistent with the levels of sovereign defaults that have been observed.(The 23% of the lowest rating sovereign issuers that Moody's assigned have accounted for the 100% of the defaults.-Moody's Investor Service Ltd.)

5.3.1 Credit rating agencies' opinion for over-reliance

CRAs admit that several market participants rely too heavily on the credit ratings rather than conducting their own analysis and also they agree that the mechanistic use of any credit quality metric will lead to "cliff effects" that they should definitely be discouraged. However, they support that alternative, market-based, tools that can be used in the evaluation of the sovereign debt like bonds and credit default swaps spreads would not alleviate the risk but it will cause a credit system that is much more volatile

from a credit system that is that is based on credit ratings. This statement indicatives that credit ratings are more stable than market prices. This is because market based indicators have the tendency to fluctuate more easily and for reasons that have nothing to do with credit risk, indicatively are mentioned changes in liquidity and broader market risk factors. On the contrary, credit rating agencies as CRAs support not only perform targeting accuracy but also target stability since stable ratings are better able to track components of credit risk.

Ratings, have become to be "arbiters" of risk both in communications and in regulation between principals and agents and also there are many disproportionate effects caused by the mechanistic ways that ratings are used. Credit rating agencies underline the need that all the shortcomings that exist in the regulation that should be addressed by policymakers and be eliminated without preventing market participants from continuing to use credit ratings in their credit assessment. Regulators need to encourage market participants in order to develop a more diverse set of credit risk measures which may also include ratings, .plus to stimulate the credit risk analysis in the market in order to potential disruption when the financial situation changes to be discouraged .

5.3.2 Credit rating agencies role in relation to sovereign ratings

Concerning the recent financial crisis in the Euro area, credit rating agencies support that that they did not contribute in the exacerbation of the

crisis as the methodology used for the sovereign ratings in the Euro area is based on the new information becoming available on the true state on some European sovereign's finances. Conversely, as it has previously mentioned, credit rating agencies target stability as well as accuracy in ratings so it is very possible, as rating agencies claim, that the release of such information would result in a much more extreme market reaction if there weren't the moderate force of the credit rating agencies.

Moreover, they believe that the sovereign debt crisis in the euro area is the outcome of a complex of factors. More specifically, these factors range from the increased risk aversion due to the global financial crisis, the continuing fragility in the banking sector and the sharp fall in the financial flows in the EU. All these factors inevitably result in a dramatic deterioration in the public finances and in the great uncertainty for economic recovery or growth regarding medium-term prospects. Consequently, there is little evidence concerning the contribution of credit rating agencies in the exacerbation of the European financial crisis and as CRAs believe their role is much more limited as it has been supported by commentators and policy-makers.

"The current crisis and ratings reflect what has been a real and substantive deterioration in the credit fundamentals of some European economies and governments and ought not to be perceived as the fault of the messenger" (Fitch Group).

CRAs also believe that their credit rating opinions so far have been reflected their best assessment that they could, concerning the political

economical and financial factors that influence the sovereign ratings. Credit ratings are opinions about the future and the sovereign ratings have proven to be very reliable indicators although some times when the situation is really unstable, future can turned out to be very different than it was previously forecasted. In those cases many unlikely possibilities may provoke significant credit ratings actions-like deep downgrades.

CRAs also state that they have succeeded to correctly rate countries in the Eurozone in the run up of the financial crisis. According to them, prior to the crisis their view, concerning sovereign credit risk in certain European countries that was reflected from the ratings, was more conservative than the one based on the market prices. As a consequent of the fact that credit ratings are predictive opinions based on the publicly available information, their ratings changed and reflected the new information which was available in the beginning of the financial crisis. So the CRAs' sovereign ratings have totally performed satisfactorily to date according to most performance core ratings including investment grade defaults and accuracy ratios. However, it is important to recognize that there is wide uncertainty surrounding the political, economic and financial outlook in the euro area and this fact inevitably affects their assessment greater degree of volatility that will remain until there is greater clarity on the economic and fiscal outlook in the European Union.

Finally in order to the market confidence to be restored and to ensure that CRAs would continue to serve their useful purposes, credit rating agencies underline that any law or regulation concerning the control or

restriction of the sovereign debt ratings should not interfere at any way with the independence of the content or the timing of those ratings. As they state anything that compromises the independence of the credit ratings agencies or adds the perception of political interference in the rating action will only cause great uncertainty to the market. Moreover they agree that the right to freedom of speech under provisions, such as article 10 of the European Convention of Human Rights, can be impaired not only through the content of speech but also through restriction on where it can be exercised.

In general CRAs believe that their ratings are important contribution to market efficiency, they facilitate the access to the capital markets and provide a useful insight to the marketplace. Consequently they do not believe that their scope to rate sovereign debts should be eliminated.

5.3.3 The regulatory framework for credit rating agencies

CRAs firmly support that sovereign ratings are just like all the other credit ratings and consequently they do not need any special treatment or any additional requirements in the existing regulatory as the European Council has proposed. As they stated sovereign issuers are extremely powerful and influential so they support that it is critical that global investor community does not see that sovereign issuers have strong influence over ratings or equally that the legislation environment in the European Union has been adjusted in favor of the sovereign issuers. In addition, they underline that the principle that exists in the European Union Regulation that "supervisory authorities and any other public authority should not interfere with the

content of credit ratings and methodologies," must be respected. "This principle is particularly important with regard to rating sovereign debt in order to prevent any conflicts of interest and to guarantee the independence of the credit rating agencies."

On the other hand, credit rating agencies recognize the great importance of sovereign ratings and their unique significance for sovereigns and policymakers that has been highlighted by the recent crisis. Additionally, they have identified the great need for rigorous analytical standards and stringent discipline concerning transparency through disclosure of ratings, methodologies and analysis. As a result, they welcome the further requirements in the CRAs Regulation in order to enhance the transparency and monitoring and they agree with the additional disclosure of the number of analysts involved, number of credit ratings assigned and disclosures with assumptions, parameters, limits and further details about the sovereign methodologies that have been used. They believe that this measure will contribute to increase investors confidence for credit ratings agencies, greatly assist them to use ratings as a data into their investment analysis and investors through disclosure will understand the reasoning that credit rating agencies assigned that rating level and will consider to what extent they agree or disagree. However, they find useless and hazardous the increase of the time period that all the rated entities, including sovereign, should be informed before the publication of the credit rating.(in order to draw the attention of the CRA to any factual errors in the rating process and to any new developments which may influence the rating). Specifically they support that this prior notification or the feather measures of banning the payment by

sovereigns for ratings and research will increase the potential of market abuse, lose credibility undermine transparency, quality and most important will affect the independence of credit rating agencies and will cause manipulation .Such rules could give the impression to the investing community that sovereign ratings differ from the other credit ratings and thus they have low standards of independence and that they do not reflect the real situation.

5.3.4 Credit rating agencies and competition

CRAs support healthy and robust competitive environment in their sector and as they claim they have no objection to the entrance of new competitors in the European Union. However, they state that the market is already contestable and not oligopolistic as European Commission supports and that was proved with the emergence of international well-resourced providers of credit risk analysis. In addition to this, they claim to compete with all the growing number of provider's credit risk analysis and not just with the other CRAs.

From the other, Fitch Group supports that forced competition would have no positive outcome and it would only succeed to entrench even more the existing duopoly of S&P and Moody's for the reason that these two CRAs have very strong dominant position in the market and thus issuers would always choose one of the two to provide credit ratings creating very strong entry barriers.

Finally, CRAs underline that they consider as a fact that the condition that the regulation regime under which other CRAs operate in the European Union would be fully applicable to any new EU entrant.

5.3.5 Credit rating agencies for the creation of a European credit rating agency

There has been a lot of consideration that because of the fact that the roots of the "big three" credit rating agencies are in the USA, they do not truly understand the way that European structures and markets operate (specifically they are accused of having an "Anglo-Saxon bias") so in that bases and also in order to enhance the competition by new entries there is a need of European credit rating agency. Indeed, the President of the European Commission Mr. Jose Manuel Barroso has said that " it is quite strange that the market is dominated by only three players and not a single agency coming from Europe. It shows there may be some bias in the market when it comes to evaluation of issues in Europe " (Euobserver.com, Barroso to ratings agencies: 'We know better', July 2011)

For this issue CRAs have pointed out that the majority of their staff who is working and is responsible for the European sovereign debt ratings is themselves Europeans and in addition they have supported that although there might be some mistakes they have a very good understanding of the European set-up and there is no case of being a US bias.

As far as the increasing in the competition that the new European rating

agency will achieve credit rating agencies claim to support that idea would have many potential benefits as it would help to increase the quality of rating and also it would probably contribute to limit the market volatility. Of course CRAs express some doubts concerning the degree of the independence that the European CRA would be able to have especially if it is sponsored by the EU governments. In any case, CRAs express their indisputable condition that the new CRA should obey and operate subject to the similar regulation that is applied already to the existing credit rating agencies.

5.3.6 Credit rating agencies and civil liability

CRAs concerning the issue of additional civil liability in the CRA regulation, support that it is important to recognize that credit ratings are assessments of future creditworthiness and not statements of current or historical facts or guarantees of performance. They also want to make clear that rating analysis is not a precise science but a complex evaluation of a multitude of factors which are based on experience and previous historical performance. Given the common knowledge that no one is able to predict the future accurately they state that it is natural that the opinion of a CRA about the future creditworthiness of a rated entity would not always coincide with the actual facts and that therefore is unreasonable for any involved party to expect that the credit rating agencies' predictions would always come true.

As a consequence, CRAs disagree with the creation of any additional civil liability as they believe that they have been already subject to a wide

range of legal measures and constrains that exists now and according to their view are enough in order to protect investors an issuers. Any further exposure to liability will limit participants or deter new entries in the market so the competition in the sector would be decreased even more, it will reduce the ability of European Union rating agencies to continue to provide publicly available independent and stable perspectives of credit risk and most importantly it will have a negative effect to the recovery and development of the European financial markets.

Lastly, they underline that according to their opinion ratings should not be utilized alone but they should be considered together with other research and analysis before taking investment decisions.

5.3.7 Credit rating agencies and the issuer-pays model as a remuneration model

The majority of credit rating agencies operate under the issuer-pays business model which means that the issuers pays the CRA to assign a rating. CRAs have been accused that their remuneration processes cause the problem of "ratings shopping" in the market which refers to the situation where an issuers selects the credit rating agency that provides him the most optimistic ratings, so as a result the currently used model gives rises to conflicts of interest.

CRAs believe that conflicts are inherent in every business model and there is always the potential to exert influence on the rating process no

matters who pays for the rating or selects the rating agency. As a consequence, the "issuer-pays" model is not worse than any other remuneration model in respect to conflicts of interest that will always be, whether is the issuer or the subscriber who pays. According to their view, even in the investor-pays model measures must be adopted in order to prevent investors with large positions from influencing the ratings or in the government model, measures should be adopted to prevent government from influencing the ratings. Moreover credit rating agencies totally disagree with the idea of establishing a blind fee distribution process like lottery ("platform-pays" model) in order to mitigate the conflicts of interest that the business models mentioned above, rise. As they support that type of model is very possible to encourage other conflicts and it may also reduce the rating agencies' incentives to improve their rating quality.

5.3.8 Credit rating agencies about sovereign defaults

Sovereign credit ratings are supposed to perform as the main indicator of default status. However, CRAs have been accepted massive criticism for having performed poorly in the prediction of crisis and for their reactive behavior especially with respect to emerging countries.

From the other, credit rating agencies support that there is no systematic bias on ratings movements and moreover they have strong performance of sovereign default as their rating consist a robust and accurate prediction of default. A proof that Moody's give for this, is the fact that for all the occurred

defaults, the sovereign borrower was assigned with the most B1 rating one year prior to the default action. Important to be mentioned is the fact that Moody's sovereign ratings have empirically found to be consistent with the observed levels of sovereign default over the past decades. More specifically the 23% of the lowest sovereign ratings have accounted for the 100% of the defaults.

Credit rating agencies state that there are two different types of events that could be characterized as default. The first, is the missed or delayed payment of the interest or the principal, as it is defined by the scientific instrument (traditional default). The second event is what they characterize as "distressed exchange" which is the situation when the issuer in order to avoid bankruptcy imposes on investors new terms and conditions that may lead to diminished economic return for the investor. Important to be mentioned is that those contractual changes are voluntarily agreed by both, issuer and investors. Indicatively, this situation might be an increase in the maturity of the specific instrument, an interest reduction, or a haircut of the principal as recently in the case of Greece.

Credit rating agencies underline that their view concerning default is not a legal concept but an economic one. Specifically, it is based on the idea of changed terms and conditions relative to the original contract. An example of that is the voluntary exchange which practically is an exchange that offers to investors new bonds in exchange of the old bonds. In addition to this, there are several degrees of volunteerism in these transactions because the investor has to consider the alternatives which might still be even worse.

5.4 Sovereign debt ratings and the case of Greece

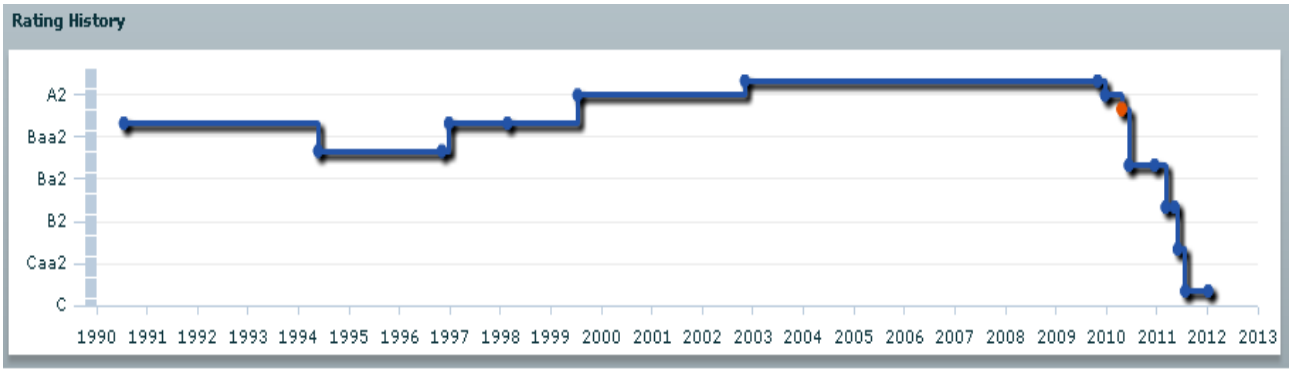
As it has been considered by many commentators, the Greek financial crisis as an outcome of the credit rating downgrades, mainly, may well be the first of a number of a sovereign debt crisis that the Euro area will endure in the next years.

Leaders of the European Union in order to strengthen the region's bailout mechanism and in addition to offer the necessary protection to the other European nations so as to diminish the risk of contagion, reached in an agreement on July 21 on the second rescue package for Greece that worth 159 billion Euros. The plan for Greece included the contribution from private investors through bond exchanges and buybacks to reduce the debt (thus, PSI plan: private investors involvement). The intention of the PSI plan was to get Greece’s private creditors to accept a 50% haircut on Greek debt. However, credit rating agencies supported that this try consist a technical default. More specifically, CRAs claim that any plans for the private sector to roll over debts would trigger a default under ratings' criteria. As Moody's managing director for EMEA credit policy, Alastair Wilson, said that while the program avoids "disorderly default" it sets a precedent by requiring private sector participation .

On July 2011 Greece 's long-term foreign currency debt was downgraded to Ca by Moody's Investor 's Service from Caa1. Moody's have said that it will reassess the risk profile of any outstanding or new securities issued by Greece after the application of the new rescue plan that includes

debt exchange. Moody's assigned rating is closer to the default than any other credit rating agency. More specifically, on June 13 Standard & Poor's cut Greece to CCC, currently its lowest rating for any country. Fitch Ratings also rated Greece at CCC. Fitch on July 22 said it would lower Greece to restricted default when the debt exchange goes ahead, before raising the rating back once the swap is completed and the new bonds issued. Standard & Poor's has also indicated that it will cut Greece to default once the exchange goes forward.

The credit rating history of Greece by Moody's from 1990 until 2012 is depicted in the following diagram. It can easily be observed the massive and deep downgrades starting from 29 October 2009 where we have a possible downgrade action, it continues with a downgrade on 22 December 2009 (to A2) and it comes to 25 July 2011 with the most recent downgrade to Ca.



Credit rating agencies generally claim that the main reason behind that deep downgrading was in the ground that private creditors will experience big

losses on their holding of Greek government bonds due to the combination of the announced EU program and the debt exchange proposals. So as CRAs claim it is of substantial importance that those big losses to be reflected in the credit rating.

Under the EU's second rescue program for Greece, banks voluntarily write down the value of their bonds by 50 percent as part of the exchanges. Moreover, it is implied that private investors would suffer in the debt exchange.

Recession has been deepened by the austerity measures that have been enacted as part of Greece's initial bailout program in May of 2010. Finally, according to the data released by the European Commission, Greece's economy is forecast to shrink even more this year after 3.8 percent contraction in 2011 and a 4.4 percent in 2010.

CONCLUSION

This thesis has attempted to provide an overview of the definitional framework, the analytical methodologies and processes behind credit ratings. Additionally, it extensively analyses, based on a number of empirical studies and literature, the basic frictions related to credit ratings and the basic role that they have played in many financial crises, historically, and more specifically, in the recent debt crisis in the European area. For this reason, sovereign ratings and their impact has been further analyzed.

Sovereign ratings are able to play a useful role and can contribute in the efficient working of the worldwide sovereign debt market as they determine the cost that a government faces when there is a need of borrowing money. This fact highlights the subjective nature of the sovereign rating. However, the severe drawback behind them is the fact that their methodology is not based on a mechanistic process but in contrast they are heavily relied on the judgment and the view of the credit rating agency so it can be claimed that there is no enough transparency in sovereign rating process. This fact can may well cause serious damages to a rated (downgraded) country as investors tend to use and over-rely solely to sovereign ratings and they seen them as if they are authoritative indicators of creditworthiness, and not just as opinions that need to be further confirmed by other market indicators.

Also credit rating agencies have been accused that the "issuers -pay" model that they use in their remuneration process presents a significant conflict of

interest in reference to the rating of a sovereign debt. Each agency's sovereign ratings are excessively reliant on issuer's fee revenue and that creates incentives for rating generosity. A recent example of this fact could be the downgrade action of France from AAA to AA+. French officials have said that Britain is more deserving of a downgrade, that never happened, than France and more specifically Michael Fuchs, a member of the governing Christian Democrats, has supported that Standard and Poor's is "playing politics" and that if the agency downgraded France then it should definitely downgrade Britain in order to be consistent. So as he has implied there might be other reasons and incentives that the agency did not do that so.

Massive downgrades of countries could easily feed a negative market sentiment and contribute to the exacerbation of the current debt crisis. That could feed into a cycle of further tightening of credit conditions and financial distress by borrowers. Procyclicality on credit ratings has been discussed a lot by policy-makers and commentators and it is considered as the main reason of the Asian crisis in which credit rating agencies have been blamed that played an important role by failing to predict and moreover by precipitating the crisis by deep downgrades that followed the outbreak of that crisis. Yet, CRAs have been accused for being procyclical in the imminent crisis in the euro area. It is a fact that from the beginning of the Eurozone until 2009 Ireland was at the same rating level as German (triple A), however at the beginning of 2011 rating agencies downgraded their debt and gave a rating close to the investment grade. An indicative example of this, is the dramatic fall of Greece's sovereign rating that had no changes between 2003 to 2009

but it was downgraded by five notches in a period of 440 days. Very interesting part is that many market analysts commented that nobody's credit quality whether is a private company or sovereign can change that quickly.

Another rating-related friction that has been analyzed in this thesis is the fact that ratings hard-wiring; the presence of ratings in law, regulations, investment mandates and private contracts. There is an imperative need that market's reliance on credit ratings has to be reduced as much as possible and as a consequence the reliance on ratings for regulatory purposes should be removed in conjunction with similar changes to the Basel rules. This hard-wiring of ratings causes a mechanistic reaction to rating changes which may well cause cliff effects, and "herding behavior" of the investors as they treat ratings as "official" proposals.

The current debt crisis in the European area and the resultant accusation on credit rating agencies have led to calls for the EU to support or even more create competitors to the big three credit rating agencies. Given the dominance of three large agencies the market is clearly oligopoly at the present, however, Fitch group supports that the market is duopoly by Moody's and S&P. It worth to be mentioned that the big three rating agencies hold the 90% of the entire credit rating market. Credit rating agencies have been accused that approach European sovereign ratings with a US or Anglo-Saxon bias. In order to overcome that problem there are many arguments that support a throughout competition in the credit rating industry. However, the idea of EU-sponsored credit rating agency would not consist a solution as it

would definitely lack credibility because it could be easily assumed that EU governments would have influence over its decisions.

As concluded, credit rating agencies have been widely accused of mis-rating several financial products, particularly mortgage-backed securities, contributing to the severity of the crisis. The biggest mistake that CRA's have ever made according to Ms Barbara Ridpath, Chief Executive of the International Center of Financial Regulation (ICFR) is that in the period before the crisis, when complex financial products appeared, credit rating agencies underestimated the risk that these products posed and consequently rated them highly. When the crisis hit, there were serious downgrades of many of these assets that caused a panic in financial markets causing a massive shortage of liquidity that provoked the crisis. That worldwide financial crisis triggered a crisis of confidence of some EU Member states. CRAs have a protagonist role as they are accused both of failing to predict the crisis and also for precipitating it by downgrading the ratings of euro area sovereigns too far and too fast. Consequently many politicians across Europe have called for restrictions on the role of credit rating agencies in rating sovereign debt and accused them of seeking to undermine the eurozone.

In my view, the shortcomings of credit ratings which have been described in this thesis, have caused the exacerbation of the crisis in the euro area. Undoubtedly credit rating agencies failed to predict the crisis in the euro area as they should have, and their serious mistake is that they took Eurozone as one thing so there was inadequate differentiation between the sovereign debt

and consequently they failed to assess the financial health of several Members of the European Union in the run-up of a sovereign debt crisis. Moreover, with their massive downgrades in certain European economies they clearly worsen the position of countries like Greece and they helped in precipitating the European sovereign debt crisis. Yet, it is true that so far credit rating agencies have assigned rating at "inappropriate" times without considering at all the potential impact of that. For instance, in April 2010 S&P downgraded Greece below investment grade; a little before the time that Greece was about to take the financial assistance package from IMF. In addition, credit rating agencies contribute in the exacerbation of the crisis as it is known that markets react dramatically in the ratings' changes especially when it is a downgrade near to the investment grade. According to an IMF study, sovereign rating downgrades is very possible to have spillover effects, in other words they might cause financial instability.

As a conclusion, considering the following quotation by Thomas Friedman it is easy to understand the massive power that credit rating agencies have:

"There are two superpowers in the world today in my opinion. There is the United States and there is Moody's Bond Rating Service. The United States can destroy you by dropping bombs, and Moody's can destroy you by downgrading your bonds. And believe me, it is not clear sometimes who is more powerful"

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