Leks Luten

s1152777

Credit Rating Agencies: Do the notorious big two influence domestic austerity policies?

Master Thesis August 2016

Supervisor: Dr. M. Beerkens

Second Reader: Dr. A. Afonso

Public Administration: International and European Governance

Table of Contents

Introduction

'Strikes against austerity in France and Belgium', 'Anti-austerity protests sweep across Italy and Spain', 'Greek parliament votes for more austerity amid protests'. These are just some of the many news articles headlining austerity since the outbreak of the European debt crisis in 2009. Austerity has become one of the most hated and feared words in politics. It sparks protests and strikes in countries, but what is it exactly? When it comes down to it, austerity is nothing more than cutting back spending and increasing revenue (Kickert, Randma-Liiv & Savi 2013). Fiscal consolidation measures are not new, to do this in the middle of one of the biggest financial crises however, is something new. People that are already hurt by the crisis, are hurt even more by governments cutting spending on, for example, labour protection and social security (Kickert, Randma-Liiv & Savi 2013). The crisis created enormous deficits in the budget which led to large amounts of debt. This thesis aims to explore the role of credit rating agencies in the austerity decision-making process governments have gone through. Since the crisis the decision-making process towards austerity has been more extensively researched. However, none of these articles include to possible link that credit rating agencies have with budget policy.

Since the global financial crisis of 2007-2008 credit rating agencies have increasingly been in the news, mostly negatively. Moody's as well as Standard & Poor's were seen as central actors in the mortgage crisis in America. By giving high ratings to risky products they deceived investors into investing their money. When these products and organizations handling these products started to default on their debt, it caused a chain reaction of defaults leading to the global financial crisis. All of a sudden the invisible, boring credit rating agencies were in the forefront of the public attention. The attention reached its highpoint, for now, in 2016 when a film, the Big Short, with an all-star cast was made about the financial crisis with Moody's and Standard & Poor's as big parts of the story. The Big Short even went on to win an Oscar.

The credit rating agencies also made an impact on the European public. During the European debt crisis, credit rating agencies downgraded many countries which led to a lot of attention from national media. Countries trying to cope with the crisis by saving banks and investing in the economy were struck down by swift downgrades (White 2013). They are prominently in the

news, affect bond markets and often lead to comments from political leaders. The ratings have a political content to them. This leads to the research question of this thesis:

What is the impact of sovereign credit ratings by Standard & Poor's and Moody's on the austerity decision-making process by countries in the European Union?

With this research question this thesis aims to explore a new possibility in the decision-making framework towards austerity. It aims to find out if credit rating agencies could be seen as a possible actor in this process.

Justification

The power of credit rating agencies has been ever increasing since their creation. Over the last two decades the amount of rated countries increased substantially and now includes the sovereign bond ratings of hundreds of countries. Credit rating agencies are a supervisor in the financial system. They inform people of the creditworthiness of countries and companies and act as gatekeepers of the financial market (Coffee 2004). Especially the big two credit rating agencies Standard & Poor's, Moody's have a very large market share. These agencies have acquired such a good reputation as gatekeepers that they have even started to have political power (Sinclair 1993). A country reacts to the ratings it receives. The Netherlands for example, was downgraded for the first time in 2013 from an AAA, the highest rating, to an AA+. This sparked discussion in parliament on how this could have happened and what the Dutch government can do to get back to their previous status (Dijsselbloem 2013). This role as financial gatekeeper is peculiar. Credit rating agencies are not like other gatekeepers. Their main objective is profit. The agencies are private companies that aim to produce profit. This can cause a conflict of interest when an issuer of bonds pays for the ratings. When an agency gives a bad rating, the issuer could go to a different agency. Another important factor in which credit rating agencies differ from normal gatekeepers is that they do not recognize themselves as gatekeepers, credit rating agencies describe themselves as publishing companies. This is to support the claim of the agencies that their ratings are merely opinions. This protects the agencies in case they make a wrong rating, they can hide behind the first amendment of free of speech. They do not have liability or accountability when giving a wrong rating (Partnoy 2006). During the recent European debt crisis countries have seen their ratings drop in quick succession. Austerity measures have been imposed

to reduce the debts that countries had acquired because of the crisis. The credit rating agencies have been proponents of austerity measures and have advised countries to impose austerity in the past (Friedman 1995). Their methodology through which they asses a countries creditworthiness is favorable towards austerity measures (Standard & Poor's 2014). Until recently many countries followed Keynes theory of increasing government spending during times of recession and decreasing government spending during times of prosperity. During the last financial crisis many European governments, especially Germany, have switched to supporting a fiscal conservative approach of austerity to overcome recessions (Block-Lieb 2015). This research will explore how much influence the credit rating agencies actually have in affecting financial policies of countries.

So far there has been research done on how national policies affect credit ratings (Afonso 2002; Afonso &Gomes 2011; Biglaiser, DeRouen & Archer 2011; Biglaiser & Staats 2012), however, there has not been a lot of research on how credit ratings can affect sovereign policies. Only Soudis (2015) has done research into the impact of a credit rating on a country's impact on neo-liberal domestic economic reform. Austerity has also had much attention since the crisis. Literature on the decision-making process towards austerity has been rapidly expanding. A framework has been established by Kickert, Randma-Liiv and Savi (2013) to help understand the decision-making process governments went through during the crisis. What has not been considered in this framework is the possible role of credit rating agencies. This thesis could contribute to the literature of austerity decision-making processes by researching the effect of a change in ratings on government spending.

Structure
The remainder of this thesis will be structured as follows. The next chapter will describe the European debt crisis and the role of austerity during the crisis. The following chapter will give background information about the credit rating agencies, their development, supervisory role, methodology and ratings. The theory chapter will provide the theoretical background of austerity, austerity decision-making and here a framework will be established. With the help of this framework the next chapter, research design, will operationalize the concepts and will discuss the methods used. This will be followed by the results chapter and the analysis chapter. In the analysis chapter the results will be discussed. The conclusion chapter will conclude the thesis and provide recommendations for possible further research into the subject.

Austerity and the European Debt Crisis

This thesis will try to answer the question if credit rating agencies had an influence on the austerity measures taken during the European debt crisis. Therefore a brief overview of the European debt crisis and the austerity measures taken during this period have to be given.

European Debt Crisis

In 2009 the European debt crisis started following the financial crisis in America. Many European banks were involved in the subprime mortgage deals and went bankrupt or needed bailouts by the governments. This sparked financial difficulties for the Eurozone countries. The American crisis made financial institutions worried about the prospects of being paid back. The crisis intensified greatly when a new Greek government in late 2009 revealed that previous governments had been misreporting government budget data. Higher than expected deficit levels made investor confidence plummet. Fears rapidly spread that the fiscal position of more EU countries could be unsustainable. This led to investors being unsure about public finances in Ireland and Portugal. The IMF and other European governments had to step in and provide these countries with financial assistance packages in order to avoid them defaulting on their debt (Belkin et al. 2012). In April 2010 Standard & Poor's downgraded Greece's sovereign bonds to a junk rating. Their interest rose sharply and they were no longer able to access private capital markets as a funding source. A plan had to be set up to rescue Greece and prevent it from defaulting. In 2011 Standards & Poor's declared that if any planned or voluntary restructuring of the Greek debt occurred, it would rate Greece at default (DePascalis 2015). Credit rating agencies started downgrading the sovereign bonds of the Eurozone countries (White 2013). This happened in quick succession and with big drops in certain countries. This implies rating failure according to the IMF (2010). The Eurozone countries have therefore, been very unhappy with these downgrades (White 2013). It brought public attention to the declining economic situation and caused declines in the securities prices. The criticism from the Eurozone countries has been that the rating agencies have been too harsh on the situation and downgraded their bonds to soon and too much (White 2013). This made the opportunities for economic recovery much harder and exacerbated the crisis (DePascalis 2015). Borrowing money gets more expensive and with the public attention given to the downgrades the confidence in the economy declined considerably. The agencies were accused of having an anti-EU bias (White 2013).

The Eurozone crisis lead to the bail out of countries and the creation of rescue packages to keep countries from defaulting and to ensure economic growth. The global recession of 2008 caused the demand in Europe to decline dramatically and private investments to drop sharply. As a result all countries showed negative GDP growth and economies were shrinking. The environment for businesses became very uncertain and banks became conservative in their loans leading to canceling investments and projects. First responses were to increase public spending to prevent a complete collapse of the economy. This led to deficits rising fast and dramatically exceeding the 3 percent limit imposed by the Growth and Stability Pact. Especially deficits in Spain, Portugal and Greece increased strongly (Kaltenbrunner et al. 2010). Greece was the first country that needed a rescue package. In 2010 the European Union together with the IMF announced the support package for Greece. They also introduced further intervention with a support package for the European financial markets in general. These packages were aimed at rescuing the peripheral countries and the banks at the core of the European Monetary Union. The ultimate goal being to prevent the Euro from collapsing. A weak euro would become less acceptable as an international reserve currency which would negatively influence the potential for expansion of European financial capital. It would also severely worsen the funding problems many European banks were facing (Kaltenbrunner 2010).

The EU put money in the rescue packages, and the IMF cooperated by making a significant amount of their own financial assistance available. The condition on this assistance would be economic and fiscal adjustment programs. Austerity would be imposed on the struggling countries, with Greece being the first target. Eventually it was not just the countries on the periphery that had austerity measures imposed. Countries in the core of the Eurozone, like Germany, France and Italy, also implemented fiscal consolidation measures like public sector wage freezes, reducing the number of public sector employees and many more targeted and across-the-board cuts (Kickert, Randma-Liiv & Savi 2013). The instability of the Euro, the renewed banking crisis, the negative GDP growth and the continuing recession lead governments to reduce government spending. At the same time, liberalization measures have been imposed by the IMF as part of the conditions for its assistance. The actors that were in the position to impose conditions in exchange for their assistance believed a mix of austerity and liberalization within the Eurozone would ensure growth (Kaltenbrunner 2010). Governments have to deal with a much

wider scope and variety of actors when compared to previous crises. The highly complex linkages between states, markets and citizens led to less isolated countries and have increased the power and authority of international institutions (Randma-Liiv, Raudla & Savi 2013). One of these international institutions will be the subject of the next chapter.

Credit Rating Agencies

The credit rating agencies are possible contributors in the austerity decision-making process. How these agencies got to be in the position they are in now will help in understanding why credit rating agencies should be considered as potential actors in the decision-making process that leads to austerity measures. The first section will show how the agencies developed into the powerful gatekeepers they are now, this will be followed by their role in the recent global financial crisis. Then a theoretical background section will explain the credit rating agencies as a supervisory actor in the financial markets. This will shed some light on the agencies as a potential factor in political decision-making. The last two sections will look at the methodology behind the ratings and how the agencies publish their ratings.

Development of Credit Rating Agencies
Credit analysis has mostly likely been a part of life ever since the first loan has been given. Everybody that loans anything out has made a calculation if the lender is going to give it back. This is done by anyone at all ages and is an important and natural component of a loan. However, there had never been an official rating manual telling how likely it is you get your loan back till John Moody made one in the early 1900s (White 2013). By 1907 several analyst had issued reports on the railroad industry containing elaborate statistics and detailed operating and financial data. Moody thought that if he could manage to convert this complex data into a single rating symbol for each bond, he could sell these ratings to the public. As he said himself, ''somebody, sooner or later, will bring out an industrial statistical manual, and when it comes, it will be a gold mine.''(Partnoy 1999). In 1909, John Moody published the first publicly available bond ratings. This was solely focused on railroad bonds and was titled 'Analyses of railroad investments'. In 1914 Moody's Investor Service was created. Moody's was soon followed by Poor's Publishing Company in 1916, the Standard Statistics Company in 1922 and the Fitch Publishing Company in 1924. These companies produced big books with bond ratings that were sold to bond investors (White 2010). Bond investors welcomed these companies and supported them enthusiastically.

Their ratings became very valuable information to investors and the agencies thrived with this demand. Especially Moody's which attained almost 100% of the bond rating market in the United States in 1924. Bond issuers on the other hand, were not as happy with the ratings. They found the agencies to be an intrusion in their business. The issuers had no choice; being rated by a credit rating agency gave investors the confidence to buy their bonds. The issuers ended up giving valuable and even non-public information to the agencies in order to get accurate and reliable ratings. During this time the agencies made their money through a subscription fee paid by the investors. Since the investors paid for the service, the way to acquire a large market share is by providing independent, reliable and accurate ratings. The agency's reputation, integrity and credibility were the most important factors for the investment community to decide where they take their business (Partnoy 1999).

Up until the mid-70s credit rating agencies remained in the market of evaluating and reporting risks of bonds and had excellent reputations. They were not however, very influential and most studies found that the bond ratings do not generate more information than is already reflected in the market price of the bonds. From the mid-70s till now the credit rating agencies have substantially increased in size. The modern credit rating agency is more influential and more profitable than at any time before, despite the fact that the credit rating system has not notably changed since the 1930s (Partnoy 1999).

In the 1970s an important change in the business model of the agencies occurred. Where they had always charged investors for their services, the industry started switching to a model where the bond issuers were charged for the ratings. These ratings would then be distributed to the general public for free. This issuer pays model is still in effect now. This could have had multiple reasons, one could be that the agencies feared it would get easier to copy their reports and lose income through sharing among the public, photo copying could be a big threat to their current revenue system and could generate free-riders. Another reason could be that the agencies realized that the bond issuers needed the ratings to get in the portfolios of the investors and the need for a rating started to get bigger on the issuer side (White 2013). This change led to 95% of the agencies annual revenues coming from issuers (Partnoy 1999). This can lead to a few potential conflicts of interest. The issuer can threaten to take their business to a different credit rating agency unless the agency gives them a positive rating. On the other hand the agencies can

threaten to give the issuer a bad unsolicited rating if they do not take their business to them. This potential conflict of interest has always been denied by the credit rating agencies and over the decades since the change in model there have not been any noticeable problems with the issuer pays model. The agencies were seen as tough minded analysts who were feared by the issuers and not as agencies without integrity where a good rating can be bought (White 2013). As Thomas Friedman (1995) said "There are two superpowers in the world today, there is the United States and there is Moody's bond rating service. The US 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."

An important side of the development of credit rating agencies is their position within regulation. The first instance of this was in 1936, the federal bank told their regulated banks to only buy bonds that are rated with an investment grade. These ratings had to be given by recognized rating manuals (White 2013). This was a first sign of the confidence the government had in the credit rating agencies and gave them the decision making power on what constitutes an investment grade bond. Besides this, the agencies were not very involved in regulatory frameworks up until the 1970s. Since 1973 however, credit rating have been incorporated in hundreds of regulation rules. The credit crisis of the early 1970s started the trend of including credit ratings into regulation. America made the first rule where credit ratings were formally incorporated. This put the use of credit ratings agencies into regulation when they were approved as Nationally Recognized Statistical Ratings Organizations (NRSROs) (Partnoy 1999). The NRSROs were created to avoid any confusion on which agencies were allowed to be used by organizations. The American Securities and Exchange Commission (SEC) was the organization that decided which agencies were recognized as NRSROs. The agencies that were instantly incorporated in this framework were Moody's, Standard & Poor's and Fitch (White 2013). Since the creation of the NRSROs the rating agencies have become the center point of thousands of regulation laws (Partnoy 1999). This trend made the credit rating agencies the gatekeepers to the bond markets they still are today. Over the first 25 years of its creation the SEC only approved four more agencies as NRSROs. This shows how difficult it is to be recognized as a new entrant in the bond ratings market. Without the SEC's recognition it is impossible to get a market share since their ratings would not give organizations a pass in the regulatory framework. It is especially difficult considering that by the year 2000, all the newly recognized agencies had been acquired by the big

three agencies. This effectively cut the number of NRSROs back to the original three (White 2013).

In the 1980s credit agencies only covered fifteen sovereign states of which all got a perfect rating (Partnoy 1999). Today the agencies rate more than a hundred countries, not just developed countries, but also developing countries and third-world countries. Especially for developing countries the credit rating agencies have become very important. Without a non-junk rating from one of the big agencies sovereign bonds will hardly be bought and these countries will have trouble getting the capital needed for investments. Also a developed country like Canada has had trouble with Moody's. In the 1990s Moody's visited Canada and let them know that either they started making deep cuts in government spending and raise domestic interest rates or the bond market will force them by withholding capital. Out of fear for the voters Canada let the bond market take the initiative and Moody's lowered their rating resulting in Canada being unable to borrow money at the level they used to and forced to implement austerity measures (Friedman 1995). Yet during the 1980s and the 1990s the rating agencies received little attention of the public and media (White 2013).

It was not until their first big mistake came to light that the existence of the NRSROs and the agencies themselves came into public attention. It was the bankruptcy of Enron in 2001 that gave them public media attention. Enron was an enormous American company and had been very prominent in American business. All three recognized rating agencies had rated Enron's bonds investment grade up until five days of its bankruptcy. This lead to questions on why they had reacted so slowly and put attention on the fact the SEC only recognized three rating agencies as NRSROs. As a reaction to these questions the SEC approved two more agencies, DBRS and A.M. Best, the NRSRO status. The American government did not deem this sufficient and approved the Credit Rating Agency Reform Act in 2006. This act forced the SEC to abandon its harsh barriers of entry and supplied new criteria in selecting NRSROs. Leading from these events there are now ten recognized NRSROs (White 2013). Despite of these efforts it is still Moody's and Standard &Poor's that dominate the market.

Supervisory capacities
Sinclair (1993) and Partnoy (1999, 2006) have researched credit rating agencies in the role of supervisors or gatekeepers of the financial market. Sinclair recognizes the big credit rating

agencies as having a major influence in the global political economy and that they deserve the attention as mechanisms of governance without government. Sinclair hypothesizes that these credit rating agencies have a certain form of leverage based on their unique gate keeping role with regard to investment funds that affect governments. There has been a shift in authority from state institutions to global civil society. The manifest authority of credit rating agencies is still intertwined with the elected authority of government; however, the order which they are in has shifted significantly. Sinclair sees this as a natural development of external threats being the regulation force to endogenous forces. Coffee (2004) notes that for an institution to be a gatekeeper it must have a considerable amount of reputational capital. This can be required over many years and many clients to which it states to make accurate assessments of the situation.

Coffee (2004) gives credit rating agencies as a prime example of gatekeepers. Partnoy (1999) sees credit rating agencies taking this regulatory role as well but does not agree with Coffee on the reputational capital view of explaining the gatekeeper role of credit rating agencies. This is because the agencies have not given credible and accurate information. This makes it impossible for the agencies to rely on their reputation in maintaining a gatekeeper role. There has been a different development that has made the agencies so very successful. They have been selling regulatory licenses, or the right to be in compliance with regulation. A good rating entitles the rated entity to certain advantages related to regulation. They reduce the costs associated with regulation. Normally credit rating agencies would have to avoid conflicts of interest and provide accurate ratings. However, when governments make a small number of credit rating agencies a part of regulation by incorporating their ratings in this regulation, like the SEC has done, the agencies become less prone to competition and therefore have less pressure on their rating accuracy. It is no longer just a rating that the agencies sell; it is also a valuable piece of compliance with regulation. If a regulation imposes costs, and a good rating reduces or eliminates those costs, the agencies will sell regulatory licenses to reduce their costs.

The act of rating

This section will give insight in how the credit rating agencies generate their ratings. It will look at the criteria used to signify creditworthiness. Credit rating agencies use different criteria for sovereign bonds than corporate bonds. For this research only the sovereign bond criteria will be given.

The five key factors Standard and Poor's gives for assessing credit ratings are (Standard & Poor's 2015a):

- The institutional assessment
    o The effectiveness, stability and predictability of the sovereign's policymaking and political institution
    o The transparency and accountability of institutions as well as the coverage and reliability of statistical information
    o The sovereign's debt payment culture
    o External security risks
- The economic assessment
    o Income levels
    o Growth prospects
    o Economic diversity and volatility
- The external assessment
    o The status of a sovereign's currency in international transactions
    o The country's external liquidity
    o The country's external position, which shows residents assets and liabilities
- The fiscal assessment
    o Fiscal performance and flexibility
    o Debt burden
- The monetary assessment
    o The sovereign's ability to coordinate monetary policy with fiscal and pother economic policies to support sustainable growth
    o The credibility of monetary policy, measured by inflation trends among others
    o Market-oriented monetary mechanisms' impact on the real economy

Moody's rating methodology is similar; they use 4 key factors to set their ratings (Moody's 2015).

- The economic strength
    - o Growth dynamics
    - o Scale of the economy
    - o National income
- The institutional strength
    - o Institutional framework and effectiveness
    - o Policy credibility and effectiveness
- The fiscal strength
    - o Debt burden
    - o Debt affordability
- The susceptibility to event risk
    - o Political risk
    - o Government liquidity risk
    - o Banking sector risk
    - o External vulnerability risk

Rating symbols

From the section before we can conclude that a rating of a sovereign country is a combination of the economic, financial and political situation of an economy. There are a large number of credit rating agencies that all have their own indicators and symbols. Since Moody's and Standard & Poor's have a duopoly on the market we only look at the rating symbols of these two agencies (Afonso 2002). Table 1 gives an overview of the rating symbols used by Moody's and Standard & Poor's and a short description of what the symbol means. Important to note is that the dividing point of investment grade rating to speculative rating is BBB. BBB is the last rating the two credit rating agencies describe as an investment grade rating. Starting from BB+ till C are regarded speculative investments. Standard & Poor's also has a D rating which indicates a default. This means the country has not been able to pay their loans and is used when filing of a bankruptcy or similar actions occur (Standard & Poor's 2014). Both rating agencies also give

outlooks. These outlooks are signified by either a + (positive) or − (negative) symbol with Standard & Poor's and a 1 (positive) or 3 (negative) with Moody's. An outlook is given to describe the agency's expectations for a country. A negative outlook means that the agency expects the country to drop in rating in the future if it does not change the course it has currently taken. A positive outlook signifies the expectation that a country is doing well and might be eligible for an upgrade if it keeps going in the same direction (Standard & Poor's 2014).

Table 1: Rating symbols

Rating symbol description	Rating symbol Standard & Poor's	Rating symbol Moody's
Extremely strong capacity to meet its financial commitments	AAA	Aaa
Positive outlook	AA+	Aa1
Very strong capacity to meet its financial commitments	AA	Aa2
Negative outlook	AA-	Aa3
Positive outlook	A+	A1
Somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than higher-rated countries. However, its capacity to meet its financial commitments is still strong.	A	A2
Negative outlook	A-	A3
Positive outlook	BBB+	Baa1
A country rated BBB has adequate protection parameters. Adverse economic conditions or changing circumstances are more likely to lead to weakened capacity of the country to meet its financial commitment.	BBB	Baa2
Negative outlook	BBB-	Baa3
Positive outlook	BB+	Ba1
Any countries rated below BBB- are considered to have significant speculative characteristics. A country with the BB rating facing major ongoing uncertainties or exposure to adverse business, financial or economic conditions which could lead to the country's inadequate capacity to meet its financial commitment.	BB	Ba2
Negative outlook	BB-	Ba3
Positive outlook	B+	B1
The country is currently capable of meeting its financial commitment. Adverse business, financial or economic conditions will likely impair the country's capacity or willingness to meet its financial obligation	B	B2
Negative outlook	B-	B3
Positive outlook	CCC+	Caa1
A country rated CCC is currently vulnerable to nonpayment and has to depend on favorable business, financial and economic conditions to meet its commitments. In the event of any adverse conditions the country is not likely to be able to meet the financial commitments.	CCC	Caa2
Negative outlook	CCC-	Caa3
The country is currently highly vulnerable to nonpayment. A CC rating indicates that a default has not yet occurred but it is expected to be a relative certainty that the country will default.	CC	Ca
The country is currently highly vulnerable to nonpayment and is expected to have lower ultimate recovery changes.	C	C
A country rated D is in default.	D	N/A

Standard & Poor's 2016 & Moody's 2015

Theory

Austerity

Before explaining what austerity entails, it is important to clarify the word itself. Austerity is used by many media outlets and generally means cutting back expenditures. This falls under a broader field of research into fiscal consolidation. These terms will be used interchangeable in this thesis.

For a long time the theory by John Maynard Keynes (1936) has had the monopoly on the tactics countries use to fight of economic recession. Keynesian economics relies on the fact that state intervention is necessary to moderate the cycles of the economy. He suggested the government to increase spending in order to counteract recessions and depressions. Recently the notion emerged that large spending cuts have been followed by economic growth. Spending cuts that reduce deficits on a nations budget lead to economic expansion and not recession as Keynesians have argued for so many years. Austerity measures aim to reduce government spending in order to reduce the deficit and in turn reduce government debt levels. This will convince the public that harsher fiscal adjustments will not be necessary later and thus stimulates consumer spending (Karger 2014).

Alesina and Ardagna (2009) recognized the positive effects of austerity and argue that spending cuts are a better way of shrinking deficits than tax increases. Alesina even spoke to Europe's finance and economic ministers and convinced them of his austerity driven plans (Coy 2010). The recent financial crisis has the debt of countries rise tremendously. The big deficits were partly as a response to the recession and partly caused by bailing out banks from going default (Reinhard & Rogoff 2010). Reinhard and Rogoff (2010) found in their research that debt of 60 percent of GDP reduces annual growth by two percent, 90 percent debt leads to halving growth rates. Seldom do countries grow their way out of debts. Countries that choose to borrow and spend the recession away are vulnerable of crises in confidence that can provoke unexpected financial crises (Reinhart & Rogoff 2010). Eurozone countries have picked this idea up and started cutting spending. This is in the hope that the economically fragile countries will be able to recover without defaulting on their debt. A default would mean serious consequences for the stability of the Euro (Karger 2014).

The European Commission, the ECB and the IMF, together known as the Troika, have been widely supportive of austerity measures in the Eurozone. Decades of reckless over-spending and borrowing to pay for overly generous public sectors are believed to be the cause of the financial crisis (Karger 2014). For a long-term sustainable growth, a low debt-to-GDP level is necessary; to achieve this, government spending has to be reduced. The preference to spend now instead of later in combination with the low confidence of the public in the economy can lead to a reduction in investment spending and this reduces growth. Furthermore, a higher debt-to-GDP ratio can lead to higher long-term interest rates and this can lead to an increase in costs of borrowing, this reduces growth. The public concern over the high debt levels can lead to more private saving and less consumption. Governments therefore, have a motivation to use austerity measures and cut spending to improve the long term growth of the economy (Bonser-Neal 2015).

Austerity decision-making
What are the factors that influence a government's decision to implement austerity or fiscal consolidation?

A centralized decision-making style has been the driver in the first response when the crisis hit. The possible bail-out of banks was the topic of discussion in many countries. During this time governments made their own decisions to the changing environment. The European Union countries did however have the EU rules and guidelines to base their decisions on. Countries in the Eurozone were also restricted in their actions, for example, they did not have the option to devaluate their currency and boost export through this tactic. These first responses were following Keynes and included expenditure increases in order to stimulate the economy (Kickert & Randma-Liiv 2015). However, this could not go on for a long time. Deficits and debts rose quickly and were getting out of hand. A decision was made to introduce fiscal consolidation by decreasing expenditures, increase revenue or both. A framework needs to be given that can explain the decision-making process towards fiscal consolidation measures. This framework will explain the causes that lead to the action of fiscal consolidation. Kickert, Randma-Liiv and Savi (2013) have made an analytical framework that explains the decision-making process towards fiscal consolidation during the European debt crisis. Their framework is divided in three main factors, financial-economic, political-administrative and external factors, which will be explained in the next sections.

Financial-economic

The biggest goal of austerity measures is to restore the public finances. This can be done by reducing budget deficit and debt. If a country takes austerity measures and how large these are would therefore depend on the deficit and debt situation the country is in. The size of the financial crisis influences the size of the fiscal consolidations (Kickert, Randma-Liiv & Savi 2013). By restoring public finances the government tries to restore or improve economic growth and unemployment rate. Therefore indicators like GDP, GDP growth and unemployment rate are important data governments use to make their decisions (Kickert & Randma-Liiv 2015). These three indicators are very similar and affect each other greatly. GDP growth is seen as the most important of the three indicators. It represents a growing or declining economy. A growing economy can do two things. First, a growing economy can lead to a growing government size. When a government has a surplus in resources it will most likely spend more. This brings the second point up, a growth in GDP can hide big deficits or public expenditures when these are looked at in a percentage of GDP. For example, a government can increase its spending but if the GDP grows more than a government spends, spending as a percentage of GDP could decline.

Economic factors are important in explaining the decision of a country to implement austerity measures. They are however, not sufficient. Some countries, mainly outside the EU, tend to use the strategy of increasing spending to counteract negative economic trends. Therefore the economic factors described above may lead to austerity in the EU and may not in other countries.

Political-Administrative

Kickert, Randma-Livv and Savi (2013) base their political-administrative factors in their framework on the effect it has on the speed and size of the measures taken. They look at whether a political system is a majoritarian or consensus democracy, which affects the possibility for swift and drastic decision-making. A consensus democracy has to come to decision by multi-party deliberation which are often lengthy. They expect majoritarian systems to reach decisions on fiscal consolidation more easily and quickly because they do not have the long negotiations and do not have to reach compromises on the measures. A further distinction is made between a majoritarian democracy with a single-party government and the consensus system with a multi-party coalition. Both have further sub-distinctions, single-party governments either have a cabinet or a presidential system. The multi-party coalition is divided into parliamentary majority, a simple majority and a parliamentary minority coalition. It can be assumed that minority coalitions

face major problems in implementing unpopular policies like fiscal consolidation. To a similar extent the state system also has an influence on the ability to reach comprehensive and coherent policies. Unitary states are supposedly more capable to do this than decentralized or federal states. The negotiations that will likely follow within a more decentralized state will most likely lead to delays and compromises.

Next to these structural factors, Kickert, Randma-Liiv and Savi (2013) also mention the electoral cycle. Governments did not implement unpopular measures when general elections were in sight. Difficult decision were postponed till after the elections. After the elections, the formation of a new cabinet often leads to lengthy discussion and compromises leading to incoherent agreements. They also make a distinction in political-administrative relations. Fiscal consolidation was entirely in the hands of politicians in some countries, while in others top-officials or external experts had a big influence. The political ideology of the current government can have an influence as well. Right-wing governments are expected to advocate more drastic and quick balancing of the books than left-wing governments (Kickert, Randma-Liiv & Savi 2013).

External Influences

The external influences included in the framework by Kickert, Randma-Liiv and Savi (2013) are the impact of the worldwide economy on a swift recovery, EU budget deficit influence and IMF/ECB/EU conditionality.

The developments in the worldwide economy can affect the state of economy and public finances. A country that has an open economy and the ability to transfer its exports to regions outside the EU have the opportunity to keep exports more balanced than countries that do not have these options. Germany increased exports to China which highly contributed to the swift economic recovery of its export industry. Countries with strong economic relations to Germany, such as the Netherlands and Belgium, also profited from this.

In the European Union, countries do not have complete sovereign control over the policies they want to implement, especially when it comes to fiscal policies. The European Union member countries agreed to the Stability and Growth Pact (SGP) during the treaty of Maastricht. The SGP placed ceilings on the deficit by 3% of GDP and on debt by 60% of GDP for all European Union members. Especially in the Eurozone this pact heavily influenced the decision for fiscal consolidation (Kickert & Randma-Liiv 2015). That non-Eurozone countries are less affected by

the SGP could be due to the fact that many countries were not convinced of the necessity of the deficit and debt ceiling. The Eurozone countries however, have more incentive to adhere to the SGP since the admission criteria for the Eurozone is the same as the SGP criteria. A country has to have 3% of GDP or lower deficit and 60% of GDP or lower of debt amongst other criteria. For these criteria to be taken serious, Eurozone countries have to at least try to adhere to these criteria themselves. This also puts countries that are attempting to join the Eurozone, like Estonia, in a different position. Estonia entered the Eurozone in 2011 and had been cutting back expenditures in the years prior in order to be allegeable for membership. The countries in this situation include Estonia, Latvia and Lithuania that joined in 2011, 2014 and 2015 respectively.

The European debt crisis led to such increased debt and deficits that the situation became unbearable for certain countries. In the countries that were bailed-out the supra-national influence was immense. The fiscal consolidation measures were decided and implemented by an external actor. When Greece, Portugal and Ireland were bailed out by the Troika they had to comply with strict austerity conditions. The ECB also helped out Spain and Italy by buying up their state bonds to prevent further interest rate increases and provided a big loan to Spain to rescue its banking sector. This helping hand from the ECB came with recommendations to cut spending that were not optional (Kickert & Randma-Liiv 2015).

Previous Research

In this thesis the role of credit rating agencies in the decision-making process towards austerity will be researched. Interest in the case of credit rating agencies has been increasing since the 21st century. Much research has been done into how influential credit rating agencies are, their position in the financial market and the legitimacy of the position and influence. However, these articles mainly look at the legitimacy of the credit rating agencies and do not look at if credit rating agencies actually influence national policies. So far, there has only been one research done that looks at the cause and effect relation of credit ratings on national policies. Soudis (2015) examines a possible convergence of neo-liberal standards induced by credit rating agencies. Soudis comes to the conclusion that the influence of rating agencies in the global political economy is exaggerated and that there is no direct causal effect on domestic economic reforms. Soudis uses both economic and political factors to assess domestic reforms. He uses a sample of nearly every rated country of which the majority of countries are developing economies. He sees that there is a trend of convergence towards neo-liberal standards, however, the relation of

sovereign bond ratings to this process is limited. Countries that are frequently downgraded do not differ in policy reform from countries that are highly rated. This has been done for the policy domains of regulation of credit, labor and business, inflation levels, legal structure and security and property rights, and the size of the public sector. In none of the domains credit ratings have been the instigator of reform. To come to these conclusions he used an index of regulation, the level of inflation, an index for the legal protection and the government expenditures as a percentage of GDP. He constructs these variables by looking at the change of the first year a country is rated compared to the last year in 2006. Two predictors are used, the first is the initial rating a country received in the first year. The second predictor is the average number of downgrades per year over the entire period a country has been rated (Soudis 2015).

Kerwer (2002) explains that credit rating agencies can have an influence on domestic policies and agrees with Sinclair (1993) that these mostly follow neo-liberal ideology. Kerwer also claims that credit rating agencies commonly demand austerity programs to avoid receiving downgrades, which forces countries to reduce expenditures and cut essential public services. Quantitative research modelling of sovereign credit ratings has been quite sparse until Afonso started writing about in 2002. Afonso (2002) studied the factors that appeared to be important in determining sovereign debt rating. Afonso set up the rating determinants that are still frequently used by researchers. Afonso found that certain determinants can explain rating levels. However, none of these variables are fiscal determinants that are associated with austerity. Only the budget balance had influence. In a next research Afonso and Gomes (2011) assess to what extent fiscal imbalances impact sovereign credit ratings. They see that it is the rise in public debt and public budget deficit that affects the ratings more than the economic indicators. Rating agencies seem to put more weight on the fiscal variables than other variables. Moody's gives more importance to government deficit, where Standard & Poor's gives more importance to government debt. They come to the conclusion that fiscal variables do have an impact on the credit level.

Biglaiser et al. (2011) and Biglaiser and Staats (2012) have done research into the political determinants that affect credit ratings. They found determinants like rule of law, strong courts and property rights are very important in the determining of credit ratings. These are factors that are expected to lower political risk. In the research of Biglaiser et al. (2011) it comes forward that political factors are relevant but appear to be less significant than economic and fiscal factors.

A new framework

Now that an overview of other research has been given, it is time for a new framework. It will be based on the framework made by Kickert, Randma-Liiv and Savi (2013). A decision to change government spending takes time to produce results. To adjust for this policy lag, the factor of government spending will be an average over a period of three years. This will ensure that the decision to increase or decrease spending has enough time to be implemented. When making the framework for the decision-making process towards fiscal consolidation it must be kept in account that the government spending will be over a period of three years.

Financial-Economic

The financial-economic factors that are included in the framework are GDP growth, public debt and public budget deficit. The influence on fiscal consolidation of indicators such as GDP, unemployment rate and GDP growth are not confirmed and have proponents and opponents. These three indicators are very similar and affect each other greatly. GDP growth represents a growing or declining economy. A growing or declining economy will influence total GDP and unemployment, therefore only GDP growth is used in this framework. Public debt is the main indicator that shows the amounts of debt a country has accumulated by borrowing capital. A country has to borrow funds when it does not have a balanced budget but a deficit on the budget. In order to decrease the public debt a country has to work towards a positive budget so it has capital left to pay of its loans.

Political-Administrative

Political factors can contribute to whether or not a government can make fast decision or has to go through a long process before it can make decisions. The change in government spending is over a period of three years, therefore it already accounts for the decision-making, implementation and results period of fiscal policy. Political factors such as, single-party or coalition government and whether or not it is an election year are not incorporated into the framework. It is expected that these factors will not have a roll in the change in government spending over a longer period. An important factor to include into the framework is that of the political ideology of the party or parties that are in power. Right-wing parties are assumed to take more drastic and swifter fiscal consolidation and cutback decisions than left-wing parties. This is also how they usually present themselves during campaigns. Even though what is said

during campaigns does not necessarily happen when the party is in government, it is still an indicator that has to be incorporated in the framework (Kickert & Randma-Liiv 2015).

The difference in Eurozone and non-Eurozone member is used to include the SGP pact enforced budgetary ceilings are in the framework. The Eurozone members are expected to take the SGP pact more seriously. The supra-national influence of the EU, ECB and the IMF through conditionality is also added to the framework. They both have the ability to influence the austerity decision-making process.

The next external factor that will be included in the framework are the credit rating agencies. Rating agencies have a certain form of expertise when it comes to assessing risk. Through this expertise they derive authority. Their ratings get a programmatic value. This means the closer a country is to the agencies view of what is good, the more likely the country is to get the highest rating. An investment grade rating grants access to the capital markets and a high rating makes this capital market cheaper to access. Countries therefore adjust to the recommendations of the credit rating agencies in order to sustain their operations and refinance existing debt obligations (Paudyn 2013). To understand how this mechanism can lead to austerity measures, the framework the credit rating agencies provide must be made clear. What the agencies find important, is what the countries will adjust to. How the agencies represent what correct and normal budgetary conduct is, turns into a social fact and a goal for which countries strive (Paudyn 2013). The credit rating agencies have a neoliberal approach to their method of rating countries (Paudyn 2013). The neoliberal approach promotes fiscal consolidation. Through their methodology which is described before, they look at the political, economic, fiscal, external and monetary categories. These categories are put into risk scenarios to calculate resiliency and financial robustness of a country. The closer the alignment of these categories with policies of austerity, the higher the score the categories receive (Paudyn 2013).

Next to the importance that comes forward in the methodologies of the credit rating agencies, it is seen in the recommendations that come with the ratings as well. With every rating Moody's and Standard & Poor's produce, they give a report which explains why they gave this rating and what a country has been doing well and what a country needs to change. They write a recommendation on what policies a country must pursue to obtain a higher rating. With the upgrade of Portugal's

long term sovereign bond rating from BB to BB+ and a stable outlook by Standard & Poor's in September 2015, it provided a report on Portugal's performance (Standard & Poor's 2015b). The report says Standard & Poor's think the Portuguese government will continue to be committed to policies that further fiscal consolidation. Gradual budgetary consolidation and the declining debt to GDP ratio for the first time in 15 years are given as a reason to upgrade Portugal's rating. At the end of the report they provide observations on policies that could raise or lower the rating in the future. Points for a future upgrade are structural reforms and continued budgetary consolidation. Points for a future downgrade are haltering the structural reforms and digressing from the current path of budget consolidation (Standard & Poor's 2015b). These recommendation heavily point towards austerity. Portugal did have a debt to GDP ratio of 124% at the time, reducing this debt might be seen as the best method for this specific situation. But even similar reports for the Netherlands, The United Kingdom and Denmark point towards their fiscal discipline and relatively modest debt burden. Moody's shows very similar explanations and recommendations in their reports.

Fiscal crisis

The fiscal crisis the European Union went through was the cause for many countries to see their debt and deficit increase and consequently to make cuts in spending to restore public finance. It is therefore a factor that has to be included in the framework.

Figure 1. Theoretical framework of austerity decision-making
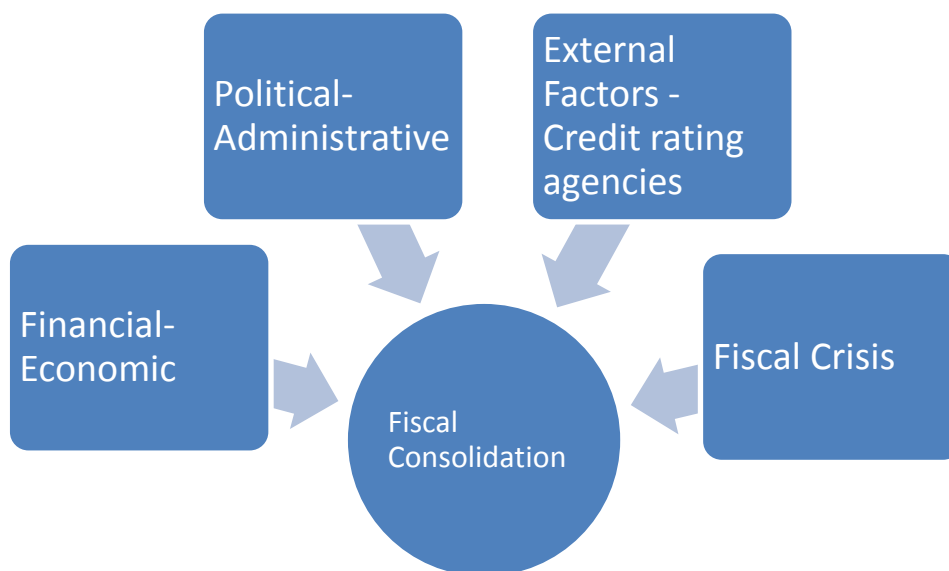
Research design

Now that the framework used in this thesis is established, it is necessary to operationalize the concepts that are used.

Dependent variable

The dependent variable in this research are austerity measures. Austerity measures consist of cutting spending or fiscal consolidation. This can best be operationalized by government spending. By using the absolute government spending in euros, all spending of all EU countries is included in the database. Since this research is trying to see if there is a change in government spending a new variable had to be computed. By using the formula for percentage change, ((new-old)/old)*100, a variable was made that represents the percentage change compared to the previous year. Since introducing new policies and the effects of these new policies might take time to show result an average of the change is taken over three years since the year of the rating.

Explanatory variables

The explanatory variables will consist of the change in rating given by the big two credit rating agencies. To give the ratings an equal numerical ordinal value there is a standard conversion made by Afonso (2002) that developed into the standard in this field of research. Afonso has put the ratings in a range from 1 to 16 where 1 is the lowest and 16 is the highest rating. Biglaiser and Staats (2012) modified this table to include the C rating or junk rating resulting in a range from 1 to 17; this research will follow that example as can be seen in table 2. This variable is further computed to represent the change in rating. By using SPSS to calculate the absolute difference of a value with the previous value, a new variable is created that represents the change in rating.

Table 2. Rating conversions

Converted Ratings	Moody's	Standard & Poor's
1	C	C
2	B3	B-
3	B2	B
4	B1	B+
5	Ba3	BB-
6	Ba2	BB
7	Ba1	BB+
8	Baa3	BBB-
9	Baa2	BBB
10	Baa1	BBB+
11	A3	A-
12	A2	A
13	A1	A+
14	Aa3	AA-
15	Aa2	AA
16	Aa1	AA+
17	Aaa	AAA

Adopted from Afonso (2002) and Biglaiser & Staats (2012)

Control Variables

The decision-making framework that was established in the theory chapter provides the control variables to be included in the model. The control variables will represent the factors next to the change in rating that can influence the decision to cut spending according to the framework.

GDP-growth

GDP-growth is a control variable of which its exact influence is not very well known. Some economists believe that GDP growth can be increased by spending more and other economist believe that it can be increased by keep a strict public budget. During the European debt crisis many countries turned to austerity measures when they were hit with the crisis. They believed

they could create sustainable long-term growth by lowering deficit and debt. This has to be done by cutting spending. A low GDP-growth can therefore be a reason for a decline in spending. This variable is computed by taking the percentage change per year of the absolute GDP per country.

Public Deficit

A deficit is the amount by which a country exceeds expenditures over its revenue. This leads to an increase in public debt. To operationalize deficit for the model the percentage change of deficit per year will be used. A variable is computed that shows the difference between the current year and the previous year.

Public Debt

If a country wants to implement austerity measures this will likely be because they have a high debt level. By spending less they can stop debt from increasing or even decrease debt. The debt control variable has been made by taking the absolute debt of a country in million euros and using the formula to measure percentage change compared to the previous year. By using the absolute number and not a percentage of GDP any changes in GDP will not affect the outcomes of the debt level.

Political Ideology

The political ideology variable is made by using the European election database made by NSD. Here it can be seen what the political position is of the parties with the most votes. This dummy variable is divided in three options, left, centre and right. If a country has a left-wing coalition it is expected to be less likely to implement big austerity measures. A right-wing coalition is expected to implement austerity measures more swiftly and drastically.

IMF/EU/ECB Conditionality

This control variable is made as a dummy variable with two options. Having external conditionality or not. When the IMF, EU or the ECB loan money to a country because they cannot cope by themselves, there are certain conditions to this loan. A country that takes this loan or bailout has to follow the policy and reform suggestions that are given with the loan. A country has to show it is willing to adjust to the conditions the lender has given, especially to be eligible

for further loan packages. Having conditionality from one or more of these actors is expected to have an impact on the government spending by pressuring countries into austerity.

Eurozone Membership

Eurozone membership is a dummy variable with two options, being in the Eurozone or not. Being in the Eurozone is expected to have the effect on countries to implement more austerity measures in order to adhere to the SGP imposed ceilings. The decision-making framework created in the theory chapter, expects Eurozone countries to take the SGP ceilings more seriously than the other EU countries. Furthermore, Eurozone countries are constrained in their methods of dealing with the crisis. The method of devaluating their currency is no longer an option. Devaluating currency can increase export and stimulate domestic consumption. The Eurozone countries are forced to find other measures, of which austerity is one.

European Debt Crisis

This control variable is a dummy variable as well. From multiple articles and news items it has come forward that the start of the European debt crisis was in 2009. The years before 2009 are therefore not in a crisis and the years since 2009 are in a crisis.

Data Sources

The macro-economic and public finance data that has been used for the database are from Eurostat. Eurostat is a reliable source of data. It is the official statistical office of the European Union and therefore has access to information on all the European Union member states. Its task is to provide the European Union with statistics at European level that enable comparisons between countries and regions. Eurostat however, does not provide information on credit ratings for sovereign bonds. The data on credit ratings are obtained from multiple sources. Moody's has all their sovereign credit rating history available on their website. They deliver rating history from 1995 till 2016 on their own website Moodys.com. Standard & Poor's has information on sovereign credit rating history from 2011 till 2015 on their own website standardandpoors.com. In order to get the rating information from 2004 till 2010 a report from the ECB called 'Sovereign Credit Ratings and financial market linkages: Application to European data' by Afonso, Furceri and Gomes (2012) was used. They provide ratings from 1995 till 2010 in tables in figure A1.3- Rating by Country in their appendix. The information on political ideology comes

from the European Election Database from the Norsk Senter for Forskningsdata [NSD]. NSD has all parliamentary and presidential elections of countries in the European Union available in their database. IMF, EU and/or ECB intervention data has been collected through multiple news sites and the article by Kickert, Randma-Liiv and Savi (2013). In total, the sample contains 27 countries and 324 observations. The data included exclusively quantitative variables. The variables were incorporated into IBM's Statistical Package for Social Science [SPSS]. SPSS makes it possible to conduct quantitative ordinary least-squares regression analyses on the data. The ordinary least-squares [OLS] regression is the common method of analyses in credit rating research. The data used in this study runs over the period of 12 years, and the years are pooled into a single cross sectional data set for analysis. The framework will tested in a stepwise manner, including more control variables in every step.

Limitations

This thesis aims to contribute to the literature on the topic of decision-making to implement national austerity measures. So far the role of credit rating agencies having a possible link to budgetary policy has not been given much attention. The data in the model used in this thesis is very rough and by no means can provide a definite conclusion on whether or not credit rating agencies have a significant role in the austerity decision-making process. It can however provide a first direction to start understanding the position of credit rating agencies in the decision-making process. Therefore this thesis aims to explore and better understand the topic of the involvement in the decision-making process towards austerity measures and possibly yield new insights into this topic. With this exploration it is important to keep in mind that this subject has a causality problem. Does a downgrade lead to a change in government spending or does the economic situation lead to a change in government spending and is the change in rating a reaction to the economic situation? The credit rating agencies use economic factors in their assessments. If the rating is affected by economic factors, does it in turn affect economic factors of a country? It can be difficult to prove if a rating influences a factor like government spending, when government spending is a factor that is used in the assessment of the rating itself. Since the ratings are very connected to economic factors like government spending it could show a correlation even though the rating does not actually affect government spending.

Before running the regression models, the descriptive statistics of the data will be given. The credit ratings given by Moody's and Standard & Poor's appear to be very similar with both having a mean of close to 13 which translates to an A1 and A+ rating. When the change in rating variables were made the first years in the data could no longer be used. They did not have a prior year to compare to. This means the change in rating variables look at the period 2005 till 2015. The statistics show a large difference between the minimum and the maximum. There have been significant drops in rating from both Moody's (-7) and Standard & Poor's (-9). The highest upgrades are 2 and 3 for Moody's and Standard & Poor's respectively.

In order to look at change in government spending over time, the government spending variable is changed in two ways. First the variable is computed into representing the change compared to the year prior. Second, the three year average is taken of the change in government spending. The change in government spending produced a maximum of 32,9 percent change and a minimum of -12,5 percent change. The variable of government spending represents percentage change. It is important to note that a 32,9% change represents the percentage change in government spending over three years following the year of a change in credit rating. A value of 32,9% can be interpreted as an increase in government spending by 32,9% over three years. If these years are from 2007 till 2009 the base year is the year before this period, in this case 2006. Over the period of 2007-2009 government spending increased by 32,9% compared to 2006. If the three year period is 2010-2012, the base year is 2009. These base years represent the year a change in rating occurs.

Interesting to note is the big difference in public debt with a maximum of more than 2 trillion euro's and a minimum of half a billion euro's. The maximum is a value of the United Kingdom which is the country that has one of the biggest economies in the European Union and the minimum is for Estonia. Estonia seems to be developing quickly in the last decade with high GDP growth and a small debt burden.

The variables in table 5 show that most observations (59%) are in the Eurozone and most (58,3%) of the observations made in the timespan for this research are during the European debt crisis. During this period there have been interventions by the Troika. Although the percentage of interventions is not high (14,8%), this is still quite a lot considering there are usually no

interventions neccesary. The political ideology dummy shows an even distribution across the European Union, although there are slightly more right-wing governments.

Table 3. Credit Rating Variables

Variable	N	Minimum	Maximum	Mean	Std. deviation
Credit Rating Moody's	324	1	17	13,22	3,9
Change in Rating Moody's	297	-7	2	-0,21	1,1
Credit rating Standard & Poor's	324	1	17	12,98	4,0
Change in Rating Standard & Poor's	297	-9	3	-0,17	1,1

Table 4. Financial-Economic Variables

Variables	N	Minimum	Maximum	Mean	Std. deviation
Government Spending in million Euro's	324	2056,5	1551537,0	227668,50	343923,7
Average Change in Government Spending over 3 years (%)	242	-12,5	32,9	4,57	5,7
Public Deficit in million euros	324	-681212,0	22144,0	-18101,27	49233,1
Change in Public Deficit (%)	297	-3184,9	2709,0	0,52	406,9
Public Debt in million Euro's	324	491,4	2265800,1	353163,78	587563,1
Change in Public Debt (%)	297	-15,1	134,7	9,03	15,2
GDP Growth Rate	324	-23,0	32,4	4,23	7,2

Table 5. External, Fiscal Crisis and Political-Administrative Variables

Dummy Variable	N	Category	Percentage (%)
Member of the Eurozone	324	Yes	59,0
		No	41,0
IMF/EU/ECB Conditionality	324	Yes	14,8
		No	85,2
European Debt Crisis	324	Yes	58,3
		No	41,7
Political Ideology	324	Left	31,8
		Centre	24,7
		Right	43,5

Results

In this chapter the pooled OLS regressions will be presented. There will be three models to present the results in a stepwise manner, adding new variables based on the framework presented in the theory chapter. The first model will consist solely of the independent variable of the change in government spending and the explanatory variable change in rating. The second model will add the financial-economic factors. The third model will add the external, administrative-political and fiscal crisis factors. The pooled OLS regressions will be executed separately for Moody's and Standard & Poor's.

After the statistical results, four individual cases will be presented. These will show how government spending changed over the years relative to the ratings they received. The cases will also take the other factors of the framework into account. This will add a qualitative and visual side to the statistics.

Previous to the pooled OLS regression interrelationship between variables has been examined through bivariate correlations. The results of the correlation analysis can be found in appendix A. Subsequently, a test for multicollinearity has been performed in SPSS. The results indicated no multicollinearity exists between the variables with high tolerance values (ranging between 0,569 and 0,980) and low variance inflation values (ranging between 1,015 and 1,759). To test for autocorrelation the Durbin-Watson test has been performed in SPSS. The outcome of the test

(d=1,439 for Moody's and d=1,478 for Standard & Poor's) shows that there is positive autocorrelation since d<2, this is however between the values (d>1 and d<3) that are considered non-problematic as formulated by Field (2009).

Regression

In the following sections I will present the results of the pooled OLS regressions per credit rating agency. This chapter will restrict itself to a discussion of the results and a summary of the most important findings. A detailed analysis of the results will be done in the analysis chapter.

Moody's

The results from the models show that a change in rating from Moody's is, in all instances, statistically significant. The regression results are presented in table 7. By adding more control variables the significance of the change in rating does not decrease. The coefficient varies from 2,081 in model 1 to 1,053 in model 3. This means that, depending on the control variables included, a decrease in rating leads to a negative change in government spending over three years of anywhere between 2,081 and 1,053 percent compared to the year the rating is given. A decrease in rating in 2005 would therefore lead to a decrease in government spending on average over the three years following the downgrade. The control variables show two significant results. Change in GDP and the European debt crisis are significant. GDP is expected to be highly correlated to a change in government spending. GDP is calculated, among other factors, by government spending. A change in GDP could therefore be the result of a change in government spending. The remaining financial-economic factors of public debt and public deficit surprisingly are not significant in any of the models. From the austerity literature it was expected that debt and deficit would be very influential on government spending. The political-administrative and external factors are also not significant. The European debt crisis factor shows that countries during the crisis spend less than countries before the crisis with a coefficient of -1,601. From the theory it is known that the European countries initially increased spending to reduce the effects of the crisis. The bailout of banks was, for instance, in many countries a cause of increased spending. Further into the crisis however, many countries started to reduce spending. This can be seen by the negative coefficient of the European debt crisis variable. A country in the European debt crisis spends 1,601 percent less over a period of three years than a country that is not in the European debt crisis.

Table 7. Moody's *OLS regression results*

Variables	Model 1	Model 2	Model 3
Change in Rating	2,081***	1,401***	1,053***
Moody's	(0,295)	(0,291)	(0,357)
Change in	-	-0,026	-0,020
Government Debt		(0,018)	(0,018)
Change in Deficit	-	-0,001	-0,001
		(0,001)	(0,001)
Change in GDP	-	0,232***	0,187***
		(0,040)	(0,045)
Political Ideology	-	-	0,182
			(0,330)
Member of the	-	-	-0,300
Eurozone			(0,634)
IMF/EU/ECB	-	-	-1,072
conditionality			(1,143)
European Debt	-	-	-1,601**
Crisis			(0,681)
R-squared	0,190	0,322	0,345

Notes: Standard error in parentheses. '***' indicates $p<0,01$, '**' indicates $p<0,05$ and '*' indicates $p<0,1$

Standard & Poor's

The results from the pooled OLS regression show that a change in rating is significant in all models. The regression results are presented in table 8. In all models the change in rating given by Standard & Poor's has a similar p-value. The coefficient varies from 1,681 in model 1 to 0,826 in model 3, depending on the factors included in the regression. This means that a decrease

of the rating by one category, can result in a decrease in government spending over three years of anywhere between 1,681 and 0,826 percent. The other control variables show very similar results as the control variables in results with Moody's ratings. This means that the results with Standard & Poor's has two significant control variables as well, change in GDP and European debt crisis. The remaining control variables are not significant in any of the models.

Table 8. Standard & Poor's OLS regression results

Variables			
	Model 1	Model 2	Model 3
Change in Rating Moody's	1,681***	1,100***	0,826***
	(0,269)	(0,261)	(0,295)
Change in Government Debt	-	-0,024	-0,017
		(0,018)	(0,018)
Change in Deficit	-	-0,001	-0,001
		(0,001)	(0,001)
Change in GDP	-	0,249***	0,188***
		(0,040)	(0,045)
Political Ideology	-	-	0,263
			(0,330)
Member of the Eurozone	-	-	-0,384
			(0,630)
IMF/EU/ECB conditionality	-	-	-1,473
			(1,089)
European Debt Crisis	-	-	-1,808***
			(0,677)
R-squared	0,155	0,307	0,343

Notes: Standard error in parentheses. '***' indicates p<0,01, '**' indicates p<0,05 and '*' indicates p<0,1

Individual country cases

A problem that arises when using the pooled OLS regressions is that a significant relationship does not have to say anything about the direction of this relationship. The causality or endogeneity issues that are mentioned in the limitations section cannot be addressed by regressions. In order to generate more background to the statistics the next section will provide more information on the decision-making process an individual country went through. By looking at three specific EU cases, Spain, Slovenia and Belgium, the framework established in this chapter will be tested. A section with political responses to the downgrade of the United States will give an idea of how a government deals with downgrades as well. The downgrade of the United States produced many news articles and reactions and can therefore be a useful addition to help understand the process that leads to fiscal consolidation.

The Spanish Case

Spain has been heavily hit during the European Debt crisis. Figure 2 shows that government spending had been steadily rising the years before the crisis hit in 2009 and the ratings of Moody's had been consistently of the highest category. In 2008 the Spanish government started first attempts of cutting back spending (Kickert, Randma-Liiv & Savi 2013). This can also be seen in figure 2. The trend of increased spending stops after 2008 and levels out. In the year the crisis started however the rating dropped. The crisis hitting did not result in immediate cuts in government spending. In May 2010 resolute spending cuts are made (Kickert, Randma-Liiv & Savi 2013) and in November 2010 Moody's announced the first downgrade for Spain from AAA to Aa1 (Moody's 2010). In March 2011 Spain is downgraded to Aa2 and in October of the same year Spain is downgraded even further to A1. In the accompanying report Moody's states that the high government debt and deficit is the main reason for the downgrade. It mentions the upcoming elections in November 2011 and expects the newly appointment government to be strongly committed to continued fiscal consolidation and if this expectation does not get materialized, further downgrades will follow (Moody's 2011). In December 2011 the new Spanish government puts fiscal consolidation as a fundamental priority (Kickert, Randma-Liiv & Savi 2013). From this moment on it can be seen that government spending starts to decline after a short rise in 2012. Moody's downgrade of Spain is right before more commitment is made to fiscal consolidations, therefore, a connection between the two actions can be possible. The first commitment to cut spending, however, was already made in 2008, when the credit rating was still

AAA. The newly appointed government is a right wing government. Right wing governments are, as mentioned before, more likely to implement drastic fiscal consolidation. In 2012 the situation got to a point where the Spanish government could not handle it anymore and the help from the Troika was needed to bail Spain out. By that time Spain had already committed to big austerity measures, therefore the influence of the Troika on the decreasing government spending cannot be confirmed.

Figure 2. Spanish ratings by Moody's and government spending in million euros


The Slovenian Case

Slovenia had already started considering cutbacks early into the crisis. In February and April 2009 first steps were made to cut spending. These were limited to temporary and moderate cutbacks (Kickert, Randma-Liiv & Savi 2013). Figure 3 shows that as of 2009 spending does not increase as fast as the years before, but still increases. Over these years Moody's has maintained a constant rating of Aa2. Three downgrades then occur in quick succession. In September 2011 Slovenian sovereign bonds are downgraded to Aa3, in December 2011 they are downgraded to A1 and in February 2012 the bond are further downgraded to A2. Soon after the last downgrade, in May 2012, the Slovenian government decides to make spending cutbacks a priority. There is however a spike in spending in 2013 that does not fit with the trend. This can be explained by the capital injection of 3,6 billion euros into banks by the government (Klinar 2014). When this 3,6

billion euros is not taken into account the government spending falls to a similar level as the previous year. The interest costs over this significant amount of extra spending accounts for the small increase in 2014 and 2015 (Klinar 2015). When looking at explanations for the decision of cutting spending the political ideology can be seen as a cause. In the 2011 elections the majority power moves from a left-wing coalition to a centre-right oriented coalition. A left-wing party wins the elections and is the biggest party, however, the prime-minister came from a centre-right party. He formed the coalition and this excluded the left-wing party that won the elections. The centre-right coalition could account for a swift introduction of austerity measures, until in 2014 new elections were held. The prime-minister was found guilty of corruption and was sentenced to prison for two years. The centre-left coalition that resulted from the new elections does not result in a significant change in government spending, although new policy measures could take longer to start having effect. The Troika did not enter the arena in Slovenia until 2014, austerity measures had begun to take place years before. When the government spending is compared to total GDP, the only year that government spending is above the SGP ceiling of 60% is in 2013, by 0,3%. There has been a deficit above the 3% ceiling since 2009. This could have been an incentive to cut spending. It is interesting to note that the years 2004 and 2005, Slovenia had a deficit of over 10% of GDP and no fiscal consolidation measures were taken. These were the two last years before Slovenia entered the Eurozone. This raises two questions, 'Why was Slovenia allowed to join the Euro with such high deficits?' and, 'do Eurozone countries take the SGP ceilings more serious than other EU countries?'. It may be concluded that the membership of the EU and the restrictions that come with it have not been of influence on the decision of cutting spending. Membership of the Eurozone however might have had an influence on how Slovenia has dealt with their deficit. Another factor in the framework is the European debt crisis. The crisis starts in 2009 and the first steps to implement austerity measures are also taken in that year. These first steps are however merely temporarily and moderate. Big fiscal consolidations are not made till 2012.

*Figure 3. Slovenian ratings by Moody's compared to government spending*
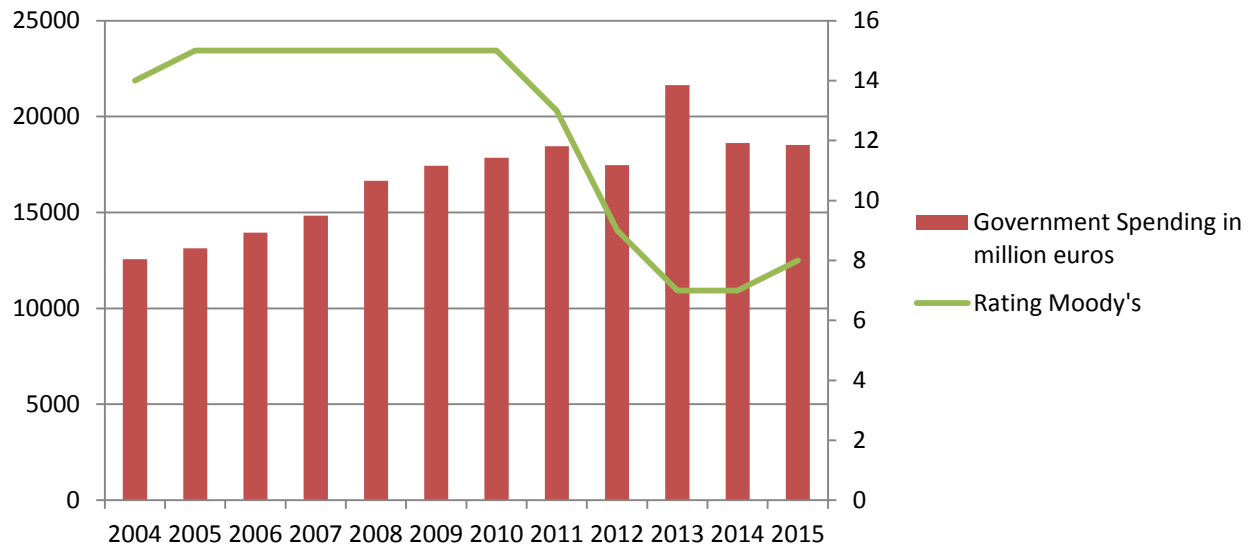
The case of Belgium

Belgium has a long history of large public deficits and growing public debt. In the years before the European debt crisis the public debt was at a level of 100% of GDP. This had been the result of years of fiscal consolidation. In 2007 Belgium reached its debt low point of 84% of GDP (Steen, Stroobants & Troupin 2013). Interesting to note is that government spending level was not at its lowest in 2007, a rise in GDP compensated for this. Figure 4 shows that government spending was fairly balanced in the years before the crisis. Belgium has a constrained decision-making position on fiscal consolidation. The federal government is made up of the two big regions in Belgium, the Flemish and the Walloon region. Cooperation between the two has been difficult. It caused a situation where the relatively prosperous Flemish government could have implemented fiscal consolidation but knew that any surplus on the budget would go to compensate the deficit of the economically poor Wallonia. It removed the incentive for the Flemish government to reduce spending, therefore only revenue measures were implemented (Kickert, Randma-Liiv & Savvi 2013). This political stalemate in combination with the rescue of banks from 2008 on, caused for a steep increase in government spending. This can be seen in figure 4 with 5 consecutive years of increased government spending which resulted in the debt-to-GDP ratio to grow back to 100%. In order to stabilize the financial system 8% of GDP was used to safe banks and the Belgian government introduced expansionary fiscal measures at the

start of the crisis, increasing public deficit form 1% of GDP in 2008 to 5,6% of GDP in 2009. It is believed the fiscal crisis was not as important to fiscal decision-making as the political crisis between the Flemish and the Walloon region. Furthermore, Belgium has had bigger fiscal crises to adjust to in the 80s and 90s, the most recent fiscal crisis was not as tough as earlier ones. It wasn't until 2011 when the sovereign credit rating was downgraded from Aa1 to Aa3 by Moody's that Belgium saw the need to decrease government spending. One month prior Standard & Poor's had already downgraded Belgium's credit rating from AA+ to AA. The warnings for a downgrade and the eventual downgrade, in combination with the overall financial meltdown of the Eurozone, forced Belgium to form a government and to implement a fiscal consolidation plan (Steen, Stroobants & Troupin 2013). Belgium politicians went through more than 80 rounds of negotiations without results but had no choice to come to a compromise on fiscal consolidation after Standard & Poor's downgraded its credit rating and public debt had soared, while its banking sector was crumbling (Chrisafis 2011). The downgrade by Standard & Poor's and Moody's at the end of 2011 was the catalyst that resulted in the 2012 budget agreement (Steens, Stroobants & Troupin 2013). The European Union put pressure on Belgium as well near the end of 2011 for not having reached its SGP related fiscal targets (Steens, Stroobants & Troupin 2013). After 2011 onwards it can be seen in figure 4 that government spending levels out, even though still on a much higher level than before the crisis. Compared to GDP, debt remained stable at 106% after increasing rapidly since 2009.

Figure 4. Belgian ratings by Moody's compared to Government spending
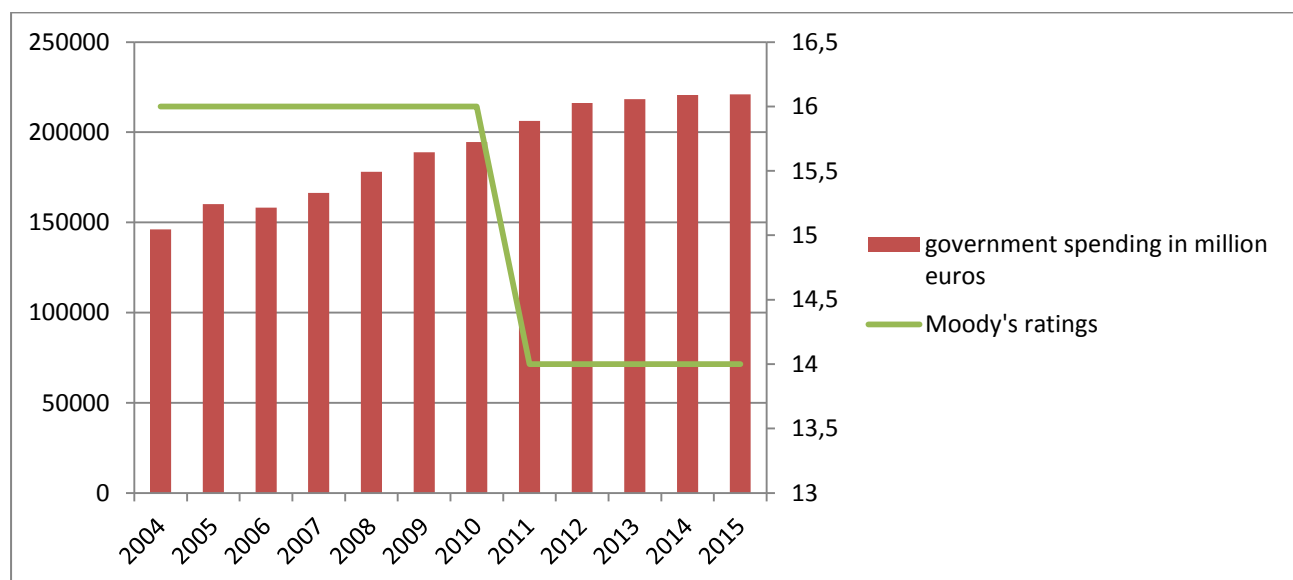
Downgrade of the United States

This section will provide information on the United States fiscal consolidation plan from 2011. The United States is outside the EU and therefore outside the sample used for this research. Nevertheless, the relatively large amount of information available on this case can provide more background information into the response of governments to downgrades in general.

By far the most reactions to a downgrade have come from the downgrade by Standard & Poor's of the United States of America in 2011. On the fifth of august 2011, Standard & Poor's reduced the perfect rating of AAA to AA+ for the first time in United States history (Appelbaum & Dash 2011). Reason given for this downgrade is the unbridgeable divide between the democratic and republic party and the inability to manage public finances that follows the divide. This is in combination with the ongoing fiscal and economic crisis that started in 2007. Standard & Poor's had warned the United States multiple times earlier in 2011 that a downgrade will happen if the government did not introduce a plan to reduce government debt by 4 trillion dollars over the next 10 years. The week before the downgrade the Obama administration had announced a plan to reduce debt by 2.1 trillion dollars, this did not change Standard & Poor's opinion that a downgrade was necessary. The downgrade came accompanied by a warning that the government still needed to make progress in lowering its debts to avoid further downgrades. The current fiscal consolidation plan did not suffice in the eyes of Standard & Poor's (Appelbaum & Dash 2011). This fiscal consolidation plan was implemented with the idea to avoid the downgrade that was looming over the United States for months. The divided political landscape made it impossible for the Obama administration to implement further cuts and especially to raise taxes for the rich. The Republican Party swiftly made an end to those plans. The initial proposal was even more comprehensive than the eventual results. The plans that were eventually implemented turned out not to do what it was meant to do, the downgrade was not avoided (Harris 2011).

Now the decision-making framework is compared to the United States fiscal consolidation measures. The economic-financial factors contributed greatly to the decision of implementing austerity measures. The outbreak of the financial crisis in the United States has lead the Obama administration to increase government spending, either to save banks from bankruptcy or to invest in the economy. This led to a high public deficit and public debt. The high public debt

posed for a serious problem since the United States has a debt ceiling. When the debt reaches this ceiling, all government institutions will be shut down. The need to decrease debt and increase the ceiling are important to avoid the shutdown.

The political-administrative factor included in the framework is political ideology. A problem in this factor is that the Democrats and Republicans are on a different scale than European political parties. Where the Democrats are seen as leftist in the United States, it would mostly likely be viewed as a right-wing or centre-right party in Europe. In financial policy this is shown by the large and swift implementation of a 2.1 trillion dollar austerity plan similar to how right-wing parties are expected to deal with fiscal consolidation measures in the framework.

The United States does not have similar external factors as European Union countries have. Even though the United States is also a union, it is much more integrated and the federal government can make fiscal decisions that affect all states directly. The United States is not affected by restrictions like the SGP imposes in the EU. The United States does not have any loans from the IMF, ECB or EU either and therefore is not subject to conditionality from these institutions. The third external factor is the credit rating agencies. Standard & Poor's has proven to have an influence on United States government spending. Many warning to downgrade the United States have eventually led to the introduction of a fiscal consolidation plan. It is said that this plan was implemented in order to avoid a downgrade.

The fiscal crisis factor also applies to the United States. The financial crisis had been wreaking havoc since 2007 and has severely increased public debt. A financial crisis causes for measures to be taken that are not normally done. Where the United States, at first, increased spending it eventually implemented austerity measures.

Even though the framework has been developed for EU member states, it can be used for the United States as well. From these factors it comes forward that three factors have been of much influence, the economic-financial, the fiscal crisis and the credit rating agencies.

Analysis

The aim of this thesis is to shed some light on the contribution of credit rating agencies in the austerity decision-making process many EU countries underwent during the European debt crisis. In this chapter I interpret my results and discuss the meanings of my findings. The discussion will be done according to the framework established in the theory chapter.

Credit ratings from both Standard & Poor's and Moody's are statistically significant in the OLS regressions and have shown in the specific country cases that they can have an influence on the decision-making process governments go through when making budget decisions. The OLS results show that a decrease in rating leads to a decrease in government spending over the next three years. The cases show that a decrease in rating can be correlated to a decrease in government spending. The figures show that a decrease in rating is, in most cases, followed by a decrease in spending. Events around the period of the downgrade show that countries have been involved with the warnings and consequences of a downgrade. In the case of Belgium and the United States, it seems conscious efforts have been made to stop the downgrade from happening. The United States proposed a fiscal consolidation plan after several warnings and right before the moment of the actual downgrade was scheduled to happen. The proposed fiscal consolidation plan was not sufficient according to Standard & Poor's. In the case of Belgium a political status quo had resulted in very few fiscal concessions being made. Even though politicians had tried to get to a compromise on a fiscal consolidation plan, it was not until the actual downgrade that politicians, despite their disputes, came to an agreement. Both these cases show that the big two credit rating agencies can exert pressure on political institutions in certain situations. Both cases also show that this situation involved a political status quo. In the United States the Democrats and the Republicans could not reach any agreements on fiscal measures. The rising debt caused for shutdowns of government institutions and an agreement on increasing the debt ceiling or cutting costs could not be reached. In both Belgium and the United States it was the pressure of a possible and actual downgrade that made politicians come to a compromise. The cases of Spain and Slovenia show that both countries had already started cutting costs long before their sovereign credit ratings were changed. For Slovenia this could be due to their accession to the Eurozone, where the SGP pact could be taken more seriously. The European debt crisis could

have been the trigger as well, expecting difficult times in the years coming some precautions could have been made. In Spain the spending cuts started in 2008, before the crisis fully started and while the country still had the highest possible rating from both rating agencies. During this time there was no change in political ideology either and there was no noticeable external influences that could have caused this move to cut spending. In both cases credit ratings do not seem to have any influence on the early spending cuts. The fiscal consolidation measures were very light and soon both countries had to implement more drastic plans to cut spending. In the case of Spain the second round of austerity measures is followed by a downgrade. It shows that the credit rating agencies have most likely not influenced the decision to implement austerity measures. A newly appointed right-wing government could have been the cause for the change in attitude towards swift and drastic austerity measures. In the case of Slovenia three downgrades in quick succession precede the newly announced rigorous austerity measures. Slovenian elections were held in 2011, right before the downgrades and right before the introduction of the austerity measures. The political ideology changed from a left-wing coalition to a centre-right coalition. This could be the reason for the implementation of more austerity measures. The fact that the government is formed by a coalition could be the reason for the delay of the introduction of the measures by a year. Interesting to note is that in the Spanish and in the Slovenian case the Troika is involved. The entrance of the Troika is in both cases long after austerity measures have started. The Troika can very well have influenced government spending since they got involved by asking even more rigorous austerity measures. Spain, for example, had to cut the public sector wage bill in order to receive a loan. They however did not seem to influence the decision to start cutting government spending. This also comes forward in the regression results where the IMF, EU and ECB conditionality did not produce significant results. The Troika mostly led countries to implement their plans swiftly and radically and did not allow any leeway or delay. The introduction of the Troika therefore led to bypassing slow political processes multi-party governments can have.

A crucial factor in government spending is GDP. According to the results in table 7 and table 8 GDP is significantly correlated to a change in government spending. This could be explained by the fact that government spending is one of the factors that adds up to calculate GDP. An increase in government spending could therefore directly lead to an increase in GDP, depending on the other factors. Next to government spending, GDP is calculated by private consumption, gross

investments and export minus import. Since government spending is included in the formula for GDP it cannot be said with certainty whether GDP affects government spending or government spending affects GDP. A reason why GDP could influence government spending is because government spending is usually presented as a percentage of GDP. An increase in GDP can therefore lower government spending relative to GDP without the absolute expenditures changing. An increase in GDP can therefore results in an increase in government spending. A higher GDP gives more room for expenditures. The data used for this study shows that countries with a high GDP, have a higher amount of government spending compared to countries with a lower GDP. A relatively high GDP, means a country has a relatively large economy, generally has a larger revenues and is able to spend more without running a negative balance on the budget.

Multiple factors which are included in the framework have a possible influence on each other. The financial-economic factors of public debt and public deficit and the factor of the European debt crisis could have been similar. However, where the European debt crisis has a significant relationship with a change in government spending, both public debt and public deficit do not. One of the reasons why the crisis is expected to influence government spending is because the crisis caused for very high debts and deficits in European countries. Many EU countries had to save banks from bankruptcy or initially decided to invest in the economy as a reaction to the stagnating economy. This resulted in high deficits in the public budgets which in turn led to high debts. After this initial phase where spending increased, many countries started to cut spending in order to get the increased debt under control. Since the period of increased spending did not last long and an average of three years of change in government spending has been used, most years of the European debt crisis have been years where countries have tried to cut costs. These arguments could count for public debt and deficit as well. This, however, does not hold up when looking at the OLS regression results.

In the country cases political ideology does seem to have an influence, it is therefore surprising that political ideology is not significant in the regression results. Membership of the Eurozone is also not significant. From the theory the probability that Eurozone countries would take the SGP budget rules more seriously came forward (Kickert, Randma-Liiv & Savi 2013). In the case of Slovenia there is some indication that points towards more constraint on the budget since their Eurozone membership. The causality of this case, however, is not clear. In other cases, the

Eurozone specifically does not seem to put pressure on countries to implement austerity measures. The EU as a whole is more involved in the decision-making process of individual countries. The Eurozone does put a constraint on the method countries choose to address the crisis. A devaluation of their currency is no longer an option. The results show that austerity measures are not significantly used as an alternative method within the Eurozone.

From the pooled OLS regression results and the various cases it seems that credit rating agencies could earn a place as an external factor in the framework for austerity decision-making and could expand on the framework created by Kickert, Randma-Liiv and Savi (2013). The cases also show that governments have many factors to take into account and most likely many more than are included in the framework used for this thesis. The influence credit rating agencies had on governments in Belgium and the United States, however, show that credit rating agencies can be included in the many factors that are in play in the process. In Belgium and the United States, a downgrade seemed to act as the last straw that broke the status quo and resulted in a fiscal consolidation plan. Both countries had many reasons to cut spending and had many endogenous and exogenous pressures to implement austerity, a looming and actual downgrade seem to be one of them. This also comes forward in the pooled OLS regression results. Both Moody's and Standard & Poor's change in ratings produced significant results. Soudis (2015) found in his results that there is no evidence credit rating agencies have a direct influence on domestic policy reform, this included fiscal consolidation policy. This is not in line with the results presented in this thesis, there are traces found that makes the influence of credit ratings on the decision-making process towards fiscal consolidation plausible. This could be due to the timespan Soudis used for his research. The period from the early 70s till 2006 includes many years where credit rating agencies have not been the institutions they are now and excludes the global financial crisis and the European debt crisis. During the 1980s and 1990s credit rating agencies have not gotten much attention from media and public (White 2013), this could have caused for the lack of influence during these decades. Soudis also used his research to explore the effect of credit ratings on reforms and only used government spending as a percentage of GDP as an indicator of government size and activity and not as an indicator for austerity policy.

Conclusion

This research set out to explore the possibility of credit rating agencies having a role in the decision-making process governments go through to implement austerity measures. Since the credit rating business is dominated by two agencies, this research will only look at these two. They are the most likely to have an influence on countries' national policies. Therefore only the ratings by Moody's and Standard & Poor's are included in this research. Credit rating agencies have long been silent and almost invisible actors that have been slowly incorporated in more and more national and international law and regulation. Over their century long existence they have built up a tremendous amount of reputational capital and have been trusted allies to many investors in the financial world. Since the 21st century however they have increasingly been subject to media attention. Starting with their role in the bankruptcy of Enron in the United States, to their involvement in the sup-prime mortgage crisis that expanded to countries all over the world. Lately they have been heavily criticized for their actions during the European debt crisis.

By looking at the methodology of the credit rating agencies it can be concluded that the agencies give a preference to countries that implement austerity measures. In multiple factors that they include in their methodology to come to a rating they endorse fiscal consolidation, efforts to reduce debt and decreasing spending. More austerity leads to higher ratings is the message they portray. The advice or policy recommendations the big two agencies give to countries all mention austerity measures and fiscal consolidation. When Portugal got downgraded they were advised to cut spending dramatically. Even positive outlooks and ratings that remain stable are accompanied with a recommendation of maintaining their low debt rates and keep spending low.

To determine whether credit rating agencies have a role in the decision-making process a framework has been established based on the framework created by Kickert, Randma-Liiv and Savi (2013). This thesis has tried to contribute to the existing framework by exploring the possibility of credit rating agencies as an input factor. The framework has been adjusted to fit the research in this thesis. The three year average of change in government spending has made some of the political factors Kickert, Randma-Liiv and Savi (2013) less important. Lagging of decision-making and electoral cycles are expected to average out over the three years.

By putting the input and output factors in pooled OLS regressions the correlation between these factors can be evaluated. The results of Moody's and Standard & Poor's are similar as expected. The change in credit rating is a significant factor. Together with change in GDP and the European debt crisis these are the only significant factors in the framework. The OLS regressions point towards the relationship between a change in credit rating and a change in government spending over three years. The causal direction of this relationship is however, not clear. The endogeneity issues that accompany this research have to be addressed. The causal relationship between government spending and the explanatory variables is not completely clear. Credit ratings might have an influence on government spending, government spending definitely has an influence on credit ratings. Government spending is after all, one of the criteria for credit rating agencies when determining ratings. The individual country cases are used to give a background to political situations surrounding the decision to implement austerity measures. The cases of Belgium and the United States show that a downgrade has pushed politicians that were stuck in a status quo, to come to a compromise. The change in credit rating was not the only factor that contributed to the fiscal consolidation compromise, it does however show that it did have a role. In the cases of Slovenia and Spain the role of credit ratings is less clear. Traces of influence can be found for the influence of the Eurozone in Slovenia and political ideology in both cases.

Looking at previous research in this subject it stands out that most research is on how a change in policies can influence a credit rating. This is the opposite of what this thesis is trying to research. Nevertheless, these articles give valuable information on the relationship between governments and credit rating agencies and the importance for governments to adjust their policies in order to receive a higher rating. There is one research done by Soudis (2015) that looks at the relationship from the same direction as this thesis does. Soudis looks at the influence of credit ratings by the big two agencies on national policies, primarily looking at political factors, like rule of law, regulation and legal protection. They also look at the inflation rate and government expenditures as a percentage of GDP. However, they use government expenditure as a percentage of GDP as an indicator of size of government and not as an indicator of austerity measures as done in this thesis. Soudis' conclusion is that there is no evidence that rating actions directly affect domestic policy. The results in this thesis suggest that credit rating agencies could have a role in the austerity decision-making process of governments. Reason for this difference could be that this thesis only looks at European Union countries and looks at a more recent time period. Soudis'

time span stops right before the European debt crisis starts, a period where credit rating agencies became very active and changed many ratings in the European Union.

The results in this research can be influenced by other variables that are not included in the database. Government spending is a variable that is dependent of many different factors. Economic downturn, political environment, whether it is an election year and many more factors can have influence on government spending. Also big actors like the Troika have been pushing countries to impose austerity measures and the European Union has the Growth and Stability Pact which states that countries have to limit their spending to 60% of GDP. These sources and many more can all have an influence on whether or not a country decides to impose austerity measures. Even with these other powerful actors this research shows the plausibility of credit rating agencies as another actor a government has to take into account when considering implementing austerity measures.

For further research I recommend to include more control variables to address more factors that could influence countries to implement fiscal consolidation. The data used in this thesis is very raw and the causality issues make it not possible to come to definite conclusions in the scope of this thesis. Further in-depth case study evidence is needed to supplement my findings and to shed more light on the role of credit rating agencies on the austerity decision-making process of governments.

Reference List

Afonso, A. (2002). 'Understanding the Determinants of Government Debt Ratings: Evidence for the Two Leading Agencies', *Journal of Economics and Finance*, *27*(1), 56-74

Afonso, A., D. Furceri & P. Gomes (2011). 'Sovereign Credit Ratings and Financial Markets Linkages: Application to European Data', *ECB*

Afonso, A. & P. Gomes (2011). 'Do fiscal Imbalances Deteriorate Sovereign Debt Ratings?', *Revue economique*, *62*(6), 1123-1134

Afonso, A, P. Gomes & P. Rother (2011). 'Short- and Long-Run Indicators of Sovereign Debt Credit Ratings', *International Journal of Finance and Economics*, *16*(1), 1-15

Amtenbrink, F. & Haan, de, J. (2009). 'Regulating Credit Ratings in the European Union: A Critical First Assessment of Regulation 1060/2009 on Credit Rating Agencies', *Common Market Law Review*, *46*, 1915-1949

Appelbaum, B. & E. Dash (2011) 'S.&P. Downgrades Debt Rating of U.S. for the First Time', *The New York Times*, http://www.nytimes.com/2011/08/06/business/us-debt-downgraded-by-sp.html?_r=0

Belkin, P., M.A. Weiss, R.M. Nelson & D.E. Mix '*The Eurozone Crisis: Overview and Issues for Congress'*, Congressional Research Service Report R42377

Biglaiser, G. & K. DeRouen (2011). 'Politics, Early Warning Systems, and Credit Rating Agencies', *Foreign Policy Analysis*, *7*, 67-87

Biglaiser, G. & J.L. Staats (2012). 'Finding the "Democratic Advantage" in Sovereign Bond Ratings: The Importance of Strong Courts, Property Rights Protection, and the Rule of Law', *International Organization*, *66*(3), 515-535

Block-Lieb, S. (2015). 'Austerity, Debt Overhang, and the Design of International Standards on Sovereign, Corporate, and Consumer Debt Restructuring', *Indiana Journal of Global Legal Studies*, *22*(2), 487-541

Bonser-Neal, C. (2015). 'Why 'Fiscal Austerity'?: A Review of Recent Evidence on the Economic Effects of Sovereign Debt', *Indiana Journal of Global Legal Studies, 22*(2), 543-571

Coffee, J.C. (2004). 'Gatekeeper Failure and Reform: The Challenge of Fashioning Relevant Reforms', *Boston University Law Review*, *84*(2), 302-364

Coy, P. (2010). 'Keynes vs. Alesina. Alesina who?', *Bloomberg Businessweek*. Retrieved May 6, 2016, http://www.bloomberg.com/news/articles/2010-06-29/keynes-vs-dot-alesina-dot-alesina-who

Chrisafis, A. (2011) 'Eurozone crisis forces Belgium to finally form a government', *The Guardian*. Retrieved July 29, 2016, https://www.theguardian.com/world/2011/dec/01/eurozone-crisis-forces-belgium-government

Darbellay, A. & F. Partnoy (2012). 'Credit Rating Agencies and Regulatory Reform', *Research Handbook on the Economics of Corporate Law*, *12*, 1-28

DePascalis, F. (2009). 'Civil Liability of Credit Rating Agencies from a European Perspective: Development and Contents of Art 35(a) of Regulation (EU) No 462/2013', *International and Comparative Corporate Law Journal*, *11*(2), 42-70

Dijsselbloem, J.R.V.A. (2013), 'Verzoek regeling van werkzaamheden ter zake de verlaging van de kredietstatus van Nederland door Standard & Poor's', *Ministerie van Financiën*, AFEP/2013/412

DiMaggio P.J. & W.W. Powell (1983). 'The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields', *American Sociological Review*, *48*(2), 147-160

ECB (2015). 'The Financial Risk Management of the Eurosystem's monetary policy operations', *European Central Bank*

ESMA (2014). 'Credit Rating Agencies' 2014 market share calculations for the purpose of Article 8d of the CRA Regulation.' Retrieved April 12, 2016, https://www.esma.europa.eu/sites/default/files/library/2015/11/20141583_credit_rating_agencies_market_share_calculation_2014.pdf

FCIC (2011). 'The Financial Crisis Inquiry Report: Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States', *U.S. Government Printing Office*

Field, A.P. (2009) *'Discovering statistics using SPSS: and sex and drugs and rock 'n' roll'*, London: Sage

Friedman, T.L. (1995, February 22). 'Foreign Affairs; Don't Mess With Moody's', *The New York Times*

Gallant, C. (n.b.). 'What is securitization?', *Investopedia*. Retrieved April 22, 2016, http://www.investopedia.com/ask/answers/07/securitization.asp

Gwartney, J., R. Lawson & J. Hall (2012) 'Economic Freedom Dataset Economic Freedom of the World: 2012 Annual Report', *Fraser Institute*

Harris, P. (2011) 'Barack Obama under fire as blame game follows US credit downgrade', *the Guardian*. Retrieved July 28, 2016, https://www.theguardian.com/world/2011/aug/06/barack-obama-us-credit-downgrade

IMF (2010). 'Global Financial Stability Report: Sovereigns, Funding, and Systemic Liquidity', *International Monetary Fund*

Kaltenbrunner, A., G. Lambrinidis, D. Lindo, J. Meadway, J. Michell, J.P. Painceira, et alii. (2010). 'The Eurozone between Austerity and Default', *Research on Money and Finance*

Karger, H. (2014). 'The Bitter Pil: Austerity, Debt, and the Attack on Europe's Welfare States', *Journal of Sociology & Social Welfare, 41*(2), 33-53

Kerwer, D. (2002). 'Rating Agencies: Setting a Standard for Global Financial Markets', *Economic Sociology-European Electronic Newsletter*, *3*(3), 1-6

Kickert, W. & T. Randma-Liiv (2015). *'Europe Managing the Crisis: The politics of fiscal consolidation'*, New York: Routledge

Kickert, W., T. Randma-Liiv & R. Savi (2013). *'Fiscal Consolidation in Europe: A Comparative Analysis',* COCOPS trend report

King, M.R. & T.J. Sinclair (2003). 'Private Actors and Public Policy: A Requiem for the New Basel Capital Accord', *International Political Science Review*, *24*(3), 345-362

Klinar, M. (2014). 'Government Expenditure by Function, Slovakia, 2013', Retrieved June 9, 2016, http://www.stat.si/StatWeb/en/show-news?id=4831&idp=1&headerbar=10

Klinar, M. (2015). 'Government Expenditure by Function, Slovakia, 2013', Retrieved June 9, 2016, http://www.stat.si/StatWeb/en/show-news?id=5704&idp=1&headerbar=10

Kurt, D. (2012). 'What are austerity measures?', *Investopedia.* Retrieved March 3, 2016, http://www.investopedia.com/ask/answers/12/austerity-measures.asp

Moody's (2010). 'Rating Action: Moody's Downgrades Spain's rating to Aa1, outlook stable', *Moody's Investor Service*

Moody's (2011). 'Rating Action: Moody's downgrades Spain's Government Bond Ratings to A1, negative outlook', *Moody's Investor Service*

Moody's (2015). 'Rating Methodology Sovereign Rating Methodology', *Moody's Investor Service*

Partnoy, F. (1999). The Siskel and Ebert of Financial Markets: Two Thumbs Down for the Credit Rating Agencies, *Washington University Law Quarterly, 77*, 619-712

Partnoy, F. (2006). 'How and Why Credit Rating Agencies Are Not Like Other Gatekeepers', *San Diego Legal Studies*, *7*(46), 59-102

Paudyn, B. (2013). 'Credit Rating Agencies and the Sovereign Debt Crisis: Performing the Politics of Creditworthiness through Risk and Uncertainty', *Review of International Political Economy*, *20*(4), 788-818

Plumer, B. (2011). 'How austerity leads to more regulation', *The Washington Post*. Retrieved March 3, 2016, https://www.washingtonpost.com/blogs/ezra-klein/post/how-austerity-leads-to-more-regulation/2011/08/02/gIQAWfvirI_blog.html

Randma-Liiv, T., R. Raudla & R. Savi (2013) '*Literature Review on Cutback Management'*, *COCOPS*

Reinhart, C. & K.S. Rogodd (2010). 'Growth in a Time of Debt', *American Economic Review,* 100(2), 573-578

Sinclair, T.J. (1993). Passing Judgement: Credit Rating Processes as Regulatory Mechanisms of Governance in the Emerging World Order, *Centre for International and Strategic Studies*

Soudis, D. (2015). 'Credit Rating Agencies and the IPE: Not as influential as thought?', *Review of International Political Economy*, *22*(4), 813-837

Subprime   Mortgage   (n.d.).   Retrieved   April   22,   2016, http://www.investopedia.com/terms/s/subprime_mortgage.asp

Standard & Poor's (2015a). 'Sovereigns: Sovereign Rating Methodology', *Standard & Poor's Rating Services*

Standard & Poor's (2015b). 'Portugal Upgraded to 'BB+' on Economic Recovery; Outlook Stable', *Standard & Poor's Rating Services*

Standard & Poor's (2016). 'Standard & Poor's Rating Definitions', *Standard & Poor's Rating Services*

Steen, T., J. Stroobants & S. Troupin (2013) 'WP 7: The global financial crisis in the public sector as an emerging coordination challenge – Short Country report for Belgium', *COCOPS*

White, L.J. (2009). 'Credit-Rating Agencies and the Subprime Debacle', *Critical Review*, *21*(2-3), 389-399

White, L.J. (2010). Markets: The Credit Rating Agencies, *Journal of Economic Perspectives*, *24*(2), 211-226

White, L.J. (2013). Credit Rating Agencies: An Overview, *Annual Review of Financial Economics*, *5*, 93-122

Appendix

A. Correlations

This correlations section will show how the variables correlate between each other and show if the data is accurate. This will ensure the linearity assumptions of the variables are met before the regression looks whether their effects are statistically significant. The Pearson correlation will be used to show the bivariate relationship between all the variables. The most focus in this will be on the relationship of the dependent variable of government spending compared to the other variables. The results of the correlation analysis are shown in the table below.

The rating for Moody's is not very strongly correlated with the change in government spending ($r = 0,376$), the linear correlation of the ratings by Standard & Poor are slightly weaker ($r = 0,361$). Stronger correlations are found with the other dependent variables. Debt ($r = 0,957$) is very strongly correlated. Deficit has a fairly strong negative correlation with government spending ($r = -0,544$). This is as expected, more debt is associated with more spending. GDP is also highly correlated to government spending ($r=0,989$).

Most control variables are fairly weakly correlated. The European debt crisis also has a weak correlation ($r = 0,056$). The Eurozone dummy and the political ideology dummy are fairly strongly correlated with respectively $r = 0,208$ and $r = 0,218$. The IMF/EU/ECB conditionality dummy is weakly correlated ($r = -0,100$)

Correlations

		Credit Rating Moody's	Credit Rating Standard & Poor's	Government Spending in million Euro's	Government Debt in million euros	Government Deficit in million euros	Gross Domestic Product in million euros	IMF/EU/ECB conditionality dummy	Member of eurozone	Is there a crisis?
Credit Rating Moody's	Pearson Correlation	1	,946**	,376**	,265**	-,150**	,378**	-,650**	,206**	-,233**
	Sig. (2-tailed)		,000	,000	,000	,007	,000	,000	,000	,000
	N	324	324	324	324	324	324	324	324	324
Credit Rating Standard & Poor's	Pearson Correlation	,946**	1	,361**	,239**	-,117*	,363**	-,660**	,221**	-,194**
	Sig. (2-tailed)	,000		,000	,000	,035	,000	,000	,000	,000
	N	324	324	324	324	324	324	324	324	324
Government Spending in million Euro's	Pearson Correlation	,376**	,361**	1	,957**	-,544**	,989**	-,100	,208**	,056
	Sig. (2-tailed)	,000	,000		,000	,000	,000	,072	,000	,319
	N	324	324	324	324	324	324	324	324	324
Government Debt in million euros	Pearson Correlation	,265**	,239**	,957**	1	-,566**	,948**	-,015	,253**	,119*
	Sig. (2-tailed)	,000	,000	,000		,000	,000	,794	,000	,033
	N	324	324	324	324	324	324	324	324	324
Government Deficit in million euros	Pearson Correlation	-,150**	-,117*	-,544**	-,566**	1	-,523**	,019	-,090	-,153**
	Sig. (2-tailed)	,007	,035	,000	,000		,000	,730	,107	,006
	N	324	324	324	324	324	324	324	324	324
Gross Domestic Product in million euros	Pearson Correlation	,378**	,363**	,989**	,948**	-,523**	1	-,105	,190**	,031
	Sig. (2-tailed)	,000	,000	,000	,000	,000		,059	,001	,572
	N	324	324	324	324	324	324	324	324	324
IMF/EU/ECB conditionality dummy	Pearson Correlation	-,650**	-,660**	-,100	-,015	,019	-,105	1	-,005	,300**
	Sig. (2-tailed)	,000	,000	,072	,794	,730	,059		,925	,000
	N	324	324	324	324	324	324	324	324	324
Member of eurozone	Pearson Correlation	,206**	,221**	,208**	,253**	-,090	,190**	-,005	1	,135*
	Sig. (2-tailed)	,000	,000	,000	,000	,107	,001	,925		,015
	N	324	324	324	324	324	324	324	324	324
Is there a crisis?	Pearson Correlation	-,233**	-,194**	,056	,119*	-,153**	,031	,300**	,135*	1
	Sig. (2-tailed)	,000	,000	,319	,033	,006	,572	,000	,015	
	N	324	324	324	324	324	324	324	324	324

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).