(DIS)TRUST IN THE EU

An analysis of causes for the trust deficit in the European Parliament

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ABSTRACT

Newspapers articles, magazine covers and even the evening news in Member States of the European Union often show great interest in the topic trust in the European Union as part of the widely reported developments in politics. No wonder the media focusses on these developments, because trust is a very important topic in democracies. Like any other democratic system, the European Union relies for support on its citizens' trust in the institutions of that Union. The European Union gathers statistical information through Eurostat, which is a Directorate-General of the European Commission. Eurostat provides statistical information to the institutions of the European Union, amongst which is a survey conducted twice a year on the trust in the European Union and in its institutions.

The surveys conducted by Eurostat show that the past decade trust levels in the bodies of the European Union, specifically the European Parliament have significantly declined. Some years report strong negative figures which gives reason to study the topic of trust, particularly trust in the European Union and its causes. This research aims to analyze possible causes of the declining trust levels in the European Parliament. In order to do so, this study begins with a review of the literature on the topic of trust in institutions, governments and the European Union. We proceed with selecting possible causes for the decline in trust and laying out the research design to test the hypotheses, after which we use a multilevel linear regression test to identify which of the previously selected indicators are found to have significant influence on trust in the European Parliament.

Key words: Trust, European Parliament, European Union

PREFACE

During a course of my Bachelor degree in International Relations in Brazil, I had my first look at the system of the European Union (EU). The EU's history, how important it was (it is) to keep the old world in peace, its economic advantages, impacts and influence and even its structure as a political system. In 2012, I've moved to live in one of the EU's member states, the Netherlands. Living in Europe for three years has broadened my view of the EU. Not rarely I've heard people complain about the EU and how their countries could be better off. Perhaps the European Union is used as a scapegoat by national politics for some of the (negative) developments over the last years, but reality is that the statistics provided by Eurostat (one of its own institutions) show that over the past years, public support to the EU has been falling. I started to wonder: "why?"

Over the course of writing this thesis, I've gained a great amount of knowledge on the topic trust in institutions, its roots and its consequences, and – of course – experience with statistical research on the data I've gathered. I've also learned that the most important thing in proceeding with a pile of work like this is the small steps taken on every day. This thesis represents the conclusion of my student time and the beginning of a new phase in my professional life. I could not have finished this thesis without the help and support received from some people, whom I therefore would like thank. My regards go to my partner, Hiltjo, who always believed in me and gave me confidence to finish my studies. His love, attention and mostly his patience were very important to me in this past year. To my mother, who while facing one of the hardest moments of her life gave me inspiration to continue. And thank you to all family and friends who always asked me about my thesis, somehow, I needed their questioning to use as a fill to finish it. I also want to thank my teacher supervisor, Mr. van Nispen, who was patient and kind during this year and Mr. Van de Walle, my second supervisor, whose flexibility made it possible to finish this thesis in time.

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LIST OF ABBREVIATIONS

-2 LL	-2 Log-Likelihood
CON	Congruence Analysis
COV	Co-variational Analysis
ECB	European Central Bank
EP	European Parliament
EU	European Union
GDP	Gross Domestic Product
HICP	Harmonized Index of Consumer Prices
ICC	Intra Class Correlation
MLRA	Multilevel Linear Regression Analysis
NG	National Government
NP	National Parliament
UK	United Kingdom

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1. THE IMPORTANCE OF TRUST

1.1. Why is trust important?

1.1.1. Legitimacy in the EU

A system that is supposedly democratic but is not supported by its people cannot be considered legitimate in the way it should to be. The literature on legitimacy in the EU divides the term in "output-oriented" and "input-oriented" legitimacy and classifies both as important when it comes to legitimation of the EU. Output legitimacy refers to the capability of the EU to effectively manage the union and input relates to the active political participation from the EU citizens (Scharpf, 1970; 1997; 1999). Scharpf emphasized the need of improving more the output than the input (Scharpf, 1999). Schmidt puts forward that there is no agreement amongst scholars on the existence of enough input legitimacy in the EU (Schmidt. 2013: 12).

Another observations for the lack of European Parliament's legitimacy is its election and the role played by this body on the decision making process in the current configuration of the European Union. Schmidt affirms that the low participation in the European Parliament elections and the fact that the only directly elected body occupies a second-order in the EU's configurations proves that the input legitimacy in the EU has room for improvement (Schmidt. 2013: 12).

Besides the "output-oriented" and "input-oriented" legitimacy, other authors have added the so called "throughput legitimacy" in their analysis. On this level, the focus of study are the rules and procedures used to produces legislation, in other words, how the decision-making process is realized (Bekkers et al, 2007, 43-6).

Gabel has observed that amongst scholars in the subject of democratic legitimacy, the source of legitimacy varies. Some authors consider the majority of peoples' attitude towards its institutions as source for democratic legitimacy. Gabel notes that there is a series of studies that have shown that citizen's support for the political system relates to their willingness to participate in non-compliance with laws and with anti-system behavior (see Muller, 1977; Muller et al., 1982)" (Gabel. 2003, 291).

Considering that the European Union was arranged to be a democratic system, the concept of legitimacy should occupy the highest level of priorities for the EU. In concepts of legitimacy, it is key to note that the EU in its form is unique compared to other organizations in the world. Over the years other forms of regional integration between countries have appeared, but none of them went so far in the integration

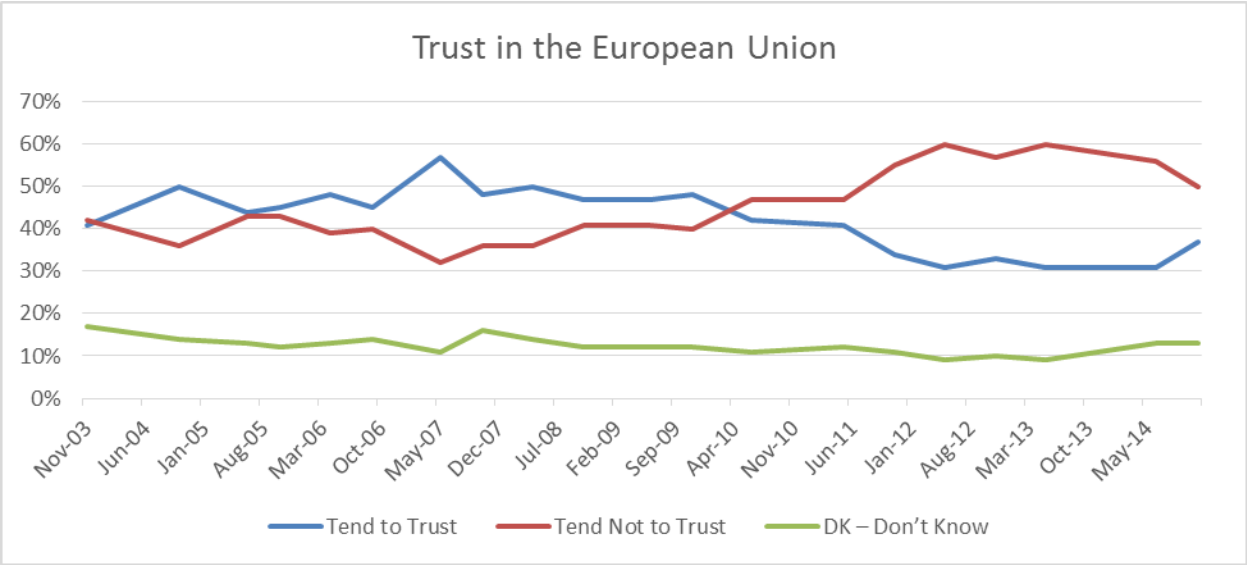
process as the EU. Although the EU is mostly seen as responsible for keeping the European continent in peace, the union has faced some criticism during the course of its history, mainly related to the democratic deficit. Schoutheete upholds that it is very difficult to prove that there is no democratic deficit in the EU. Some consider the representative powers of the EP damaged because the parliament is too far from its citizens to represent them properly. In addition, the EU's elections do not attract sufficient voters. Therefore, the EP does not possess the same legitimacy when compared to the national parliaments. Moreover, the institutional balance in the decision making power in many important areas, even after the reforms establish via new the treaties, remains in the hands of the Council. Meanwhile, the EU defends itself by clarifying its structure and emphasizing the fact that the EU is the only institution that relies on a body directly elected by the citizens, the European Parliament (Schoutheete, 2000: 51-55).

1.1.2. Trust in the EU

The EU itself, via the Eurobarometer, monitors the levels of public trust since 1975 by performing surveys amongst citizens of the EU. The questions in the Eurobarometer are directed to EU's citizens in all member states and aim to measure the level of trust in each of the EU's institutions. This research provides the EU with information and helps the EU base its evaluation of progression and better coordinate its actions.

Figure 1.1 shows the average (European Union) answer to the question: "For each of the following institutions, please tell me if you tend to trust it or tend not to trust it? The European Union." over the past 11 years.

Figure 1.1 *Trust in the European Union*



The data from the Eurobarometer clearly shows a decline in trust amongst the citizens of the EU. The EU recognizes this downward spiral of trust levels and, in the beginning of March, 2014, published “gaining people's trust” as the most important point on "EU Wish List” (European Union, 2014). This emphasizes the actuality of EU’s concern about the current level of its citizens’ trust.

The question comes up if the EU can do something to reverse the downfall that the numbers in Figure 1.1 show? Studies show that governments can influence its citizens’ level of trust. Uslaner shares this view and notes that “many authors claim that democratic state can contribute for the levels of trust that people has in their government” (Uslaner, 2000: 4). In addition, Braithwaite and Levi note that governments are able to affect the construction, destruction and maintenance of communal and interpersonal trust (collective and domestic trust and general trust within society). Based on these studies, it is safe to say that efforts by the European Union to gain peoples’ trust are not necessarily futile and the EU might be able to influence its citizens when it comes to trust.

Though studies reveal it is possible to influence the levels of trust that people have in their government, the structure of the European Union cannot be directly compared to a single country. In a typical democratic system, it will be easy to identify the presence of an opposition body and the central authority figure or image. However, since the EU is not just a single political system, such a presence has not been formed or identified. Therefore, there is no obvious opposition or a clear option where citizens could change to in case that they are not satisfied with the European Union. Additionally, the European Union is such a complex network, involving so many layers, it makes it hard to identify (or even lacks) a single central authority. The European citizens are not able to identify who is in charge of the policy outcomes. In other words, when compared to a typical democratic system, the EU does not present a group of politicians that belongs to right of left, and neither a prime minister or president who could be held responsible. According to van Ham, the “Europe’s multilevel network of governance does not have a clear ‘government’; it lacks a clear opposition that can provide an alternative within the democratic system; it fails the standard democratic tests of transparency and accountability of decision-making; and it has no structured majority, personalized by identifiable leaders” (van Ham. 2005, 160). The EU has changed and adapted several times in order to promote a better system, a system based on democratic values. However, the criticism remains steadily in the eyes of public opinion. This criticism relates to the authenticity of the EU acts and the lack of democratic legitimacy (van Ham. 2005, 53).

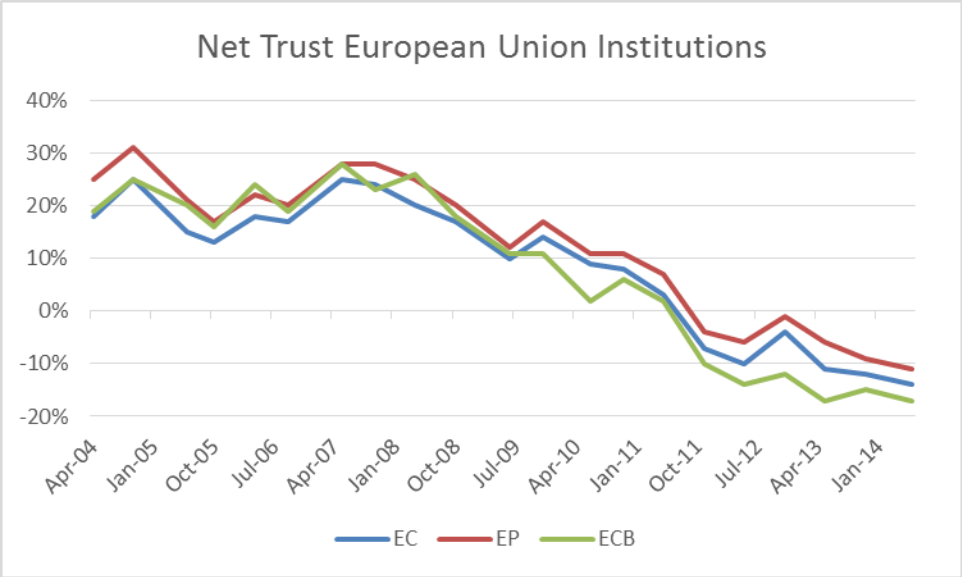
The EU as a system based on democratic values relies upon high levels of trust amongst its citizens, for the following reasons: (1) democracies are depended on trust to succeed (Bovens and Wille, 2008: 284-

285) and (2) the citizens' support is important for the maintenance of the democratic sustainability (Aydın and Cenker, 2012: 230). In addition, maintaining a positive level of public trust is fundamental to good governance, because the high level of public trust contributes in the decrease of administrative costs and increases larger compliance with the laws (Braithwaite and Levi 1998; Tyler 1998).

1.1.3. Trust in European Institutions

In the previous paragraph it appeared that trust in the EU has been declining over the past years. The EU however, consists of many bodies and institutions. For example, the European Commission, the European Central Bank and the European Parliament. The Eurobarometer surveys include questions about these institutions. One of these questions is: "For each of the following institutions, please tell me if you tend to trust it or tend not to trust it? The European Central Bank." The same question is asked for the other institutions. Possible answers to these questions are: "Tend to trust", "Tend not to trust", "Don't know." To compare the results we calculate the 'net trust' which is computed by subtracting the percentage of those who trust from the percentage of the surveyed that answered with "do not trust". The results for the "Net Trust" level of the aforementioned institutions are shown in Figure 1.2.

Figure 1.2 *Net Trust in European Institutions*



Looking at these lines it appears obvious that trust in institutions of the European Union has been declining over the past years.

1.2. What happens if trust declines?

Studies on public trust in government have predicted and concluded some consequences and changes in society in the case of reduction of public trust levels. Chanley et al. present the relation between citizens' support and legitimacy. For these authors, once that the people do not trust their government and contest its actions, the consequences will be less citizens' compliance. Therefore, there is no other option for the government then forced means to achieve citizens' obedience to its acts. Consequently, the government will act on its own, thus undermining the legitimacy in the relationship between government and its citizens (Chanley et al., 2000: 240). Once trust is compromised, studies show that the process to reestablish that trust is very difficult (Braithwaite and Levi, 1998; Uslaner, 2000; Aydın and Cenker, 2012).

Researchers have found empirical evidence of the influence of trust levels on governments and citizens behavior, such as, (1) citizens' tolerance to the regime. Once that citizens trust their government they are more likely to comply with laws and regulations (e.g. more likely to pay their taxes) (Tyler 1990, 1998); (2) people are more likely to collaborate to political and nonpolitical causes. This is associated to participation and engagement in the electoral process. Furthermore, the participation of people in the government depends on trust because they are only going to participate if they feel that their government is trustworthy and vice versa (Uslaner, 2000: 3; Aydın and Cenker, 2012: 232; Levi & Stoker 2000); (3) the low level of public trust in the government led citizens to support alternative parties, parties with a stronger opinion and position in speech. This occurs because citizens want to renew their hopes in government, therefore it is necessary to reform or change completely their non-trustworthy government (Chanley et al., 2000: 240; Dalton, 2005: 17). The behavior pointed out above (2) vice versa occurred in the past years when member states have increasingly been challenged with strong voices for parting the European Union (e.g. PVV in the Netherlands, Independence Party in the United Kingdom); (4) When governments count with high level of public trust they are able to produce more innovative policies (Aydın and Cenker, 2012: 231). However, when it is not the case, governments tend to choose for more stable policy-making profile and still there is loss of legitimacy of the regime (Aydın and Cenker, 2012: 231); (5) the way in which citizens see the government bureaucracy is also affected by the trust levels. Citizens that do not trust their government are motivated to transfer their negative impressions to the government's service delivery and consequently, support more market driven solutions (i.e. privatizations) (Forester & Nilakant, 2005: 351-352).

Based on the aforementioned studies, we can conclude that public trust in government institutions has clear impact on the structure, behavior and position of the government and on the participation and

compliance of the citizens in the system. The impact of public trust in government in the relationship between citizens and democratic governments is enormous and must not be treated as of secondary order. According to Bekkers et al "no political system could endure, at least for very long without support. […] hence a necessary condition for the existence of a political system is the presence of some moderate belief in its legitimacy, which is based on the validity of the authority used to make decisions" (Bekkers et al, 2007, p. 37).

1.3. Research question

During the literature review, it appeared that scholars studied different objects of trust (institutions and in governments) and the sources of influence on that trust. Two of these institutions are the National Government and the National Parliament. Since those are the elective and representative bodies of a country, we find it interesting to see of the development of trust in these bodies is somehow correlated to trust in the elective body of the European Union, the European Parliament.

Another important factor scholar's address as influencing trust is economic performance but literature also points out that there is a generalized decline in trust over the past years. Since the economic performance in the EU over the past 10 years has seen great fluctuations while at the same time governments seem to struggle with a decline in trust by their citizens, the central research question asks if these developments can explain the decline in trust in the European Parliament. This research results in the following central research question:

> Can changes in trust in the national government and parliament or economic performance of a member state explain the decline in trust in the European Parliament?

In this research question, the dependent variable is trust in the European Parliament and the independent variables are the economic performance of a member state and the national level of trust.

This research question can be divided in the following sub questions:

1. How can trust in public institutions be defined?
2. What are the main causes of (dis)trust in public institutions?
3. How did the economic performance of the EU Members States develop over the past 11 years?
4. What is the impact of the development of economic performance on trust in the European Parliament?

5. How did trust in the National Governments and National Parliaments develop over the past 11 years?
6. What is the impact of the development of trust in national government and parliament on trust in the European Parliament?

The conceptualization of the terms used in the independent and dependent variable is discussed in chapter 1.5. The hypotheses drawn up for this research are discussed in chapter 3.

1.4. Research Objective, Academic and Practical relevance

In the field of political science, the theoretical and social dimensions draw up the concept of relevance for a research question (Gschwend and Schimmelfennig, 2007). The social relevance is described as the concern to social problems which make citizens and policymakers understand and possibly solve the problem (Lehnert, et al, 2007). Additionally, "socially relevant work focuses on phenomena which affect people, and discusses their impact with regard to specified evaluative standards".

1.4.1. Research Objective

The objective of this research is to identify causes of the declined trust in the European Parliament. Due to the unique democratic position of the European Parliament in comparison to other bodies of the European Union, this research particularly focuses on trust in the European Parliament. Unlike of the other institutions in the European Union, the European Parliament is elected by the European citizens via direct elections. As mentioned in the two previous sections, a decline in trust can in different aspects negatively affect a government or an institution, the most important aspect of which is the legitimacy of this government or institution.

This research aims to identify possible causes of the decline in trust in the European Parliament is embodied in the following research question: What explains the decline in trust in the European Parliament? The answer to this question may help guide the European Union and deepen the research towards a better way of (re)gaining its citizens trust in the European parliament. The information harvested from this research can be used to reconsider their policies and may even help getting the European Commission closer to fulfill their wish to gain more trust from the European Citizens (Wish List European Union; 2014).

1.4.2. Academic relevance

A theoretically dimension aims to clarify a phenomena that we study theoretically or empirically (Gschwend and Schimmelfennig, 2007). This research will contribute to the body of knowledge on possible factors influencing the citizen's trust in the European Parliament.

In the field of public administration, public support/trust is considered a topic of great interest (see Kurian, 2001). This research on trust in the European Parliament aims to reveal possible explanations for the decrease in trust of the member states citizens its parliament.

There are diverse ways of explaining what has affected the levels of trust in government. Scholars were able to cover many of them. Some studies, for instance, indicate that there is a generalized declined in trust in all institutions (e.g. Norris, 1999; Dalton, 2004; Dalton, 2005), other researchers made use of the so-called "performance-based" explanations (e.g. Mcallister, 1999, Chanley et al 2000), which basically believes that citizens judge whether they trust their governments or not based on the government's performance. These studies were applied in many case studies (government of many countries, its institutions) and during these studies scholars used a certain period of time (i.e. the impact of event on trust levels, such as, an economic crisis) (e.g. Norris, 1999, Uslaner 1999, Aydın and Cenker, 2012, Klingemann and Fuchs, 1995). A literature review studies on the topic will be presented in chapter 2.

Citizen's trust in a government and its institutions is important for a democratic system, but it is also a complex subject and is affected by many different parameters. Events like the Financial and Economic crisis and the perceived downfall in trust have given rise to studies on the impact of such parameters on trust. A more recent study on trust in the European Parliament and the European Union have been done right after the economic and financial crisis in 2007. Some countries in the EU passed the economic crisis but some still seem to be in the middle of it (e.g. Greece). By now the impact of events like the economic crisis become more and more visible and citizens really seem to have started to feel the consequences of being a member of the EU. In the 2015 elections for parliament of United Kingdom for example, the Conservatives – who are in favor of a referendum on whether the UK should remain a member of the EU – secured a clear lead over their rivals who suffered their worst defeat since the 1970 general election. It is expected that a few years after crisis hit the European member states, results on the influence of economic performance and trust in the national governments will more clearly show. Hence, it is expected that a study over the past 10 years which shows a strong change in the chosen independent variables economic performance and trust in the national parliament will show interesting results.

Last but not least, this research is exclusively aimed in the democratic chosen body of the European Union (the European Parliament). The interest in one of the European Union's bodies gives this research a more specific approach in relation to democratic legitimacy than some of the studies reviewed, which often have more general approach by studying trust in the bodies of the European Union as a whole (e.g. Armingeon and Ceka, 2007). Moreover, it appears that scholars are not unanimous in their results on in possible causes for the decline in trust levels in the European Union (see 3.1).

This research will contribute to the existing body of literature on the topic trust in EU institutions by presenting results exclusively related to the European Parliament. In addition this study uses recent data on a time period including a financial and economic crisis and a heated debate in several member states on parting the EU.

1.4.3. Practical relevance

From a social (society) and practical (policy making) view, this study contributes by analyzing why the support for the European Parliament has decreased. Chapter 1 shows consequences of decline in trust levels for a democratic government, for example citizens' tolerance to the regime and their compliance to their government's laws and rules. It is obvious that the EU, just as any democratic chosen government requires citizen's support its legitimacy and secure its existence.

Answering this question might provide society, scientists and policymakers relevant information in their search for answers in the everlasting integration process of the European Union. To investigate "Why has public support to the European Parliament had declined?" is thus relevant for all people living in one of the member states and also for the policymakers involved in the integration processes of the European Union.

1.5. Reading guide

The first chapter presents the problem analysis, the objectives in this research and the research question about trust in the European Parliament.

In the second chapter, the literature review on important studies about trust, trust in institutions and trust in governments is provided. This literature review shows the first possible causes connected to lack of trust in the European Parliament, such as economic performance and generalized trust behavior. Subsequently, the hypothesis are introduced based on the literature review and the control variables are identified.

The following chapter provides an outline in the research design used in this study. Additionally, this section describes the statistical method. The fourth chapter deals with the empirical part of the study. This chapter presents the results of the multilevel regression analyses. Last but not least, the final chapter describes the answer to the research question formulated earlier, as well and the academic implications of this research.

2. THEORETICAL FRAMEWORK

This chapter discusses the theories that are being tested in this research. The first paragraph describes the theoretical possibilities of the phenomenon elaborated on in chapter one. The second paragraph sets out arguments supporting this study and presents the main hypotheses that are studied. The third paragraph outlines the concepts and terms that take a central place in this research, while the fourth paragraph discusses the independent variables applied to control for causes other than trust in national institutions and economic performance

2.1. Causes of (dis)trust

From the literature review in this thesis on the topic trust in government (and similar topics, such as, trust in institutions, confidence in government, so on) it appears many explanations exist for the decline in the level of trust in government (Newton and Norris, 1999; Pharr and Putnam, 2000; Dalton, 2004; Bovens and Wille, 2008).

Observing the variety of approaches in trust in institutions, it stands out that Mishler and Rose have classified them in two different types: exogenous and endogenous. The exogenous analyzes are the studies that focus on non-political scope explanations, in other words, for this type of studies the answer for the decline in trust in institutions lies outside the political sector and can better be explained by cultural differences and changes within society. The other type of studies focus on political factors as the main source of the declined trust levels, such as, the way governments perform their tasks (Mishler and Rose, 2001: 31).

The literature indicates that “declining trust in government is a complex phenomenon with multiple potential causes” (Chanley, Rudolph and Rahn, 2000: 240). It is, thus, possible that any of the approaches could be the main source of explanation in the analysis of decline in the level of trust in government. The theoretical debate has concentrated on the influence of economic changes, the modernization process and a generalization tendency of distrust (Dalton, 2005 p. 6). Other authors have identified three main lines of studies on possible explanations for causes affecting trust in government. Nye classifies these lines as: economic or social-cultural (Nye, 1997). The first line analyzed the influence of government’s performance affecting trust, named as “performance-based”. The second line takes the most influential factor on trust level as sociocultural based. It is important to underline the differences between the studies presented in the literature on “trust in government” and the focus of this research. Most of the studies concentrate in examining differences in trust in government between countries over a long time

period (Pharr and Putnam, 2000; Dalton, 2004). However, this thesis will analyze which of the two approaches has the higher explanatory power in the downwards of trust level in the European Parliament over a short time period. It will be used in this research as possible explanation on the downwards on trust: the economic line (performance-based) and the social-cultural line (generalization in trust level). Both will be further discussed in the following sections.

2.1.1. Performance based approach

The performance approach to trust in government is based on the assumption that citizens are able to separate the roles of different tasks in the government and hold specific parts responsible for the success of failure of its responsibilities (Mcallister, 1999: 190). Therefore, citizens' level of trust in government depends on how governments perform theirs task. In other words, once that a government is able to respond properly to its citizens' expectations the level of trust in a government will be positively registered. Consequently, when a government does not perform in accordance to its citizens' expectations, the level of trust in this government will be negatively impacted (Bovens and Wille, 2008: 287).

The idea of measuring the level of trust using a government's performance might sound straightforward, however, this is not the case. Performance can still be measured using different criteria, such as the outcomes or the process that generates the outcomes. Some authors argue that it is not possible to distinguish one from the other; therefore, the term performance is used to cover both outcomes and the process (Bouckaert et al, 2002: 51).

The government's performance approach comes from theories of political economy where the main focus lies on the understanding what factors influences public evaluation on government performance, focusing mainly on economic issues (Norris, 1999: 218). The studies on performance based approach are divided in two parts: macro-performance and in micro-performance. Miller and Listhaug (1999), Anderson (1995) and Newton and Norris (1999) are studies based on measuring the macro-performance indicators and its effects on trust's level in governments. These studies succeeded in provide satisfactory empirical evidence of the relation between economic indicators and the level of citizen's trust. Mcallister concludes that since economic performance has a great impact on electoral results, resulting in better chances of governments to be reelected (Mcallister, 1999: 189). Hence, economic performance should impact the level of public trust in government.

2.1.2. Macroeconomic performance

Macro-performance is associated with economic performance, the macroeconomic performance deals with macroeconomic indicators, such as, unemployment, inflation, economic growth, etc. Some researchers are firm on the clear connection between citizen's perceptions on economic factors and the level of trust (Chanley, Rudolph and Rahn, 2000: 240). Using aggregated data, Uslaner substantiates this approach by finding a connection between economic indicators and level of trust in government (Uslaner 1999). However in his conclusions he confirms that this only occurs if citizens believe that their government could control and affect the economy. The surroundings details about the performance approach are also discussed in Anderson's analysis on the topic. According to Anderson, there is a clear point to observe when studying the effects of performance and trust, what citizens expect and what their government does (Anderson, 1973). Aydın and Cenker identified economic performance as the most important variable when explaining trust in governments. However, these authors also considered education and socio-demographic variables as possible influential in a smaller scale (Aydın and Cenker, 2012: 234).

The conditionality on the performance approach was extended by Van de Walle and Bouckaert in their work. According to these authors, the validity of the performance approach depends on the following conditions: *"(1) the service assessed should be seen as a part of government, or influenced by government; (2) the service providing agency should have an independent influence on trust in government; and (3) performance criteria should be seen as important to the evaluator [citizen-client]*" (Van de Walle and Bouckaert, 2001: 3).

In the literature on the topic, there are studies available using different macro indicators (i.e. environmental policy, health and elderly care). Nonetheless, there is less agreement on the influence of these other indicators affecting trust in government. Although it is difficult to select which macroeconomic indicators might have influence on citizens' judgment, some researchers though have proved, using empirical information, that unemployment and inflation are the most likely ones (Mcallister, 1999: 203). Miller and Listhaug identify three basic alternatives of measurement to test the economic performance approach: economic growth (measured by GDP), inflation and unemployment rates. These authors successfully found evidence in their comparative and time-series data (based on the world values survey) from Norway, Sweden and USA to prove that bad economic performance impacts on public trust in government (Miller and Listhaug, 1999: 207-211). Moreover, the relation between public trust in government and change in inflation and unemployment rates were also found in Lipset and Scheneider

studies in the United States (Lipset and scheneider, 1983: 62-65). Therefore, this research will handle the follow macroeconomic indicators in the Eurozone: unemployment, economic growth and inflation.

2.1.3. Micro-performance

The other part of performance based approach is dedicated to measure the impact of micro-performance. For instance, how government's service delivery impacts in the trust levels in the government. Kobi (1998) and Glaser and Hildreth (1999) have studied this part of the performance based approach. The micro performance studies are based on the expectation that citizens evaluate their trust in their government according to their level of satisfaction in services delivery (Bouckaert, et al. 2002: 41). Bouckaert et al have divided the micro performance approach in two parts: performance of politicians and performance of government agencies (Bouckaert, et al. 2002: 52-53).

This approach of the economic performance will not be analyzed due to limited time. The complexity of providers (there are over 40 agencies) in services in the EU and the huge number of politicians and assistants working in the EU (i.e. over 33. 000 people are working for the European Commission, around 6 000 at the European Parliament) (European Union, 2014) make it difficult and complex to conduct micro-performance studies in the EU.

2.1.4. Concepts of performance based approach

According to the performance based approach, citizen's valuation on trust in their government it not based on a collective thought. In other words, one trusts more his/her government when he/she realizes that the government is doing what is best for the community (Bouckaert, et al. 2002: 62).

It is important to add that, when judging their governments, citizens use a short-range calculation (Aydın and Cenker, 2012: 233). Therefore, their answers are limited to a certain time. Consequently, the performance based approach is seen, for this study, as one of the approaches with the highest explanatory powers.

2.1.5. General decline in trust

The studies based on the general decline in trust presented empirical evidence of the existence in declining trust levels in all institutions. This general downwards of trust includes government's agencies, traditional institutions and the government itself. Many authors have proved the increased level of skepticism when it comes to politicians and governments in almost all advanced industrial democracies using this approach (Norris, 1999; Dalton, 2004; Dalton, 2005).

In this chapter, the general decline in trust will presented and the chapter will provide a better understanding on this approach.

2.1.6. General decline in trust in government and institutions: the international level.

When investigating possible explanations for the decline in public support, it is pertinent to look beyond the regular options and broader the possibilities. Therefore, this research has paid attention to the variety of possible causes in the decline of public support. What if the reason for declining trust level is not an isolate case? According to Norris' evaluation on the USA data (since 1964), there has been a decline in the level of trust for all institutions in general (Norris, 1999). Klingemann and Fuchs believe that the reasons why citizens trust less and less in government has a more generalization dissatisfaction character. They have confidence in the existence of a systemic consecutive spreading of dissatisfaction over different ranges of government. In their view, citizens are not able to believe in the capacity of politicians, neither political party to handle government's responsibilities. The authors used information from the West European democracies to back up their idea of generalized dissatisfaction of the citizens' towards their governments (Klingemann and Fuchs, 1995: 22). Supporting this view, Dalton observes decreasing levels in the downwards public support in all advanced industrial democracies. He trusts that these similarities must have common social forces acting in every country (Dalton, 2005: 1). Moreover, for Dogan, the loss of confidence in the government or the decline of level of trust can be considered as "chronic, international and structural" (Dogan, 2005). In the same line, Norris identified the increase of cynicism about government already present during the 60's. She affirms that "public support for political regimes in western nations, and more recently in emerging democracies. In some democracies cynicism about government institutions seems to be endemic, widespread and deep-rooted" (Norris, 1999: 218). Finally, according to Miller and Listhaug contemporary and industrialized societies present lower levels of public trust in government. The authors upholds that there are evidences pointing to the fact that since the beginning of the 70's public trust in government institutions has achieve lower levels by time (Miller and Listhaug, 1999: 204)

Bouckaert et al emphasize that the negative opinion diffused faster than positive opinion and the possibility to apply this finding also when speaking of trust in the government or institutions (Bouckaert, et al. 2002: 23). Based on a variety of studies on the topic they achieve two conclusions: "trust in institutions does not necessarily have something to do with government, and, government is approached as if was one amorphous concept" (Bouckaert, et al, 2002: 35).

Most of the studies on the topic are dedicated to analyzing levels of trust in the government and its institutions and establish a cross-country comparison between them (Norris, 1999; Dalton, 2004; Dogan, 2005). However, this is not exactly the focus of this research, because this research seeks to find explanation for the downwards on public support in the European Parliament. Therefore, the key question to be answered here is: which facts might influence trust in an organization beyond the national government? Brewer et al state that domestic political facts have influence in the international level of trust. Additionally, a citizen who does not trust domestic institutions is probably not going to trust institutions in an international level. (Brewer et al, 2004). Consequently, citizens' amount of trust in one level of government might be reflected in other institutions (Chanley, Rudolph and Rahn, 2000: 240).

2.1.7. Concepts of generalized declined trust

Citizens do not make difference between trusting their local government and trust other lines of their government (i.e. trust in their city hall, or in a president or a minister). Furthermore, citizens are not able or do not want to hold a layer or a part of their government as the only responsible, they have a unity idea (Uslainer, 2001: 133). Additionally, Constantelos and Diven affirmed "ït is important to note that limited knowledge of a complex and relatively distant international institution can undermine support" (Constantelos and Diven, 2010: 3)

The researchers from Norris (1999) and Pharr and Putnam (2000) provide empirical evidence that "trust in government and the institutions of representative government is generally eroding in most Western democracies" (Dalton, 2005: 3). For instance, Uslaner's research on the influence of approval in the American federal level impacting levels of trust in state and federal level prove that there is no differentiation between the levels of trust in the USA (Uslaner, 1999).

Based on this literature, it is possible to uphold that the declined of levels of trust in government and institutions is not an isolate case. There is evidence that this phenomena occurs in most advanced industrial democracies (Dalton, 2005: 1).

2.2. Hypotheses

Paragraph one shows there is a general phenomenon in Western democracies of erosion of trust in governments and the institutions of a representative government, and identifies possible explanations of the causes for (dis)trust in governments and its institutions. This research focuses on a possible relationship between trust in the national parliament and trust in European Parliament, and on economic

performance as a cause of (dis)trust in the European Parliament. The existing body of knowledge touched upon in chapter two is extended by testing two hypotheses.

2.2.1. Hypothesis 1: economic performance vs. European trust

A closer look into the literature on trust in the European Union reveals some other relevant studies on economic performance having an impact of trust levels. Most of the studies have tested for effects caused by the economic crisis (see Roth et al, 2009 and Armingeon and Ceka, 2013). Roth et al, 2009 have pushed in their study evidences that the financial crisis have negatively affected the trust levels in the European bodies (European Commission, European Parliament and The European Central Bank). More precisely about the European Parliament, the author mentioned that the body "has reached its historical (1999-2009) low in January-February 2009, in the immediate aftermath of the financial crisis." (Roth et al, 2009: 17). These authors concluded in a more recent study (2009) that during the crisis the increase in unemployment levels and the higher inflation had affected negatively the trust levels in the European institutions (Roth et al, 2011: 15)

Nannestad and Paldam (1994) concluded in their analysis that macroeconomic issues play an important role in determine whether the citizens trust their government or not. They affirmed based on their time series study (25 years of research) that "voters hold the government responsible for the development in the economy and a good economic development increases the popularity of the government, while a bad development decreases the popularity" (Nannestad and Paldam, 1994: 215). The results from their research was contested by a more recent study applied in Germany in 2009, were Kirchgassener found empirical evidence denying the relationship between one of the macroeconomic variables (unemployment) and levels of trust in the country (Kirchgassene, 2009: 14 cited by Roth et al, 2011:3).

Based on the negative economic performance during the economic crisis several studies claim a relationship between the economic performance and the level of trust amongst the citizens in the European Union. Taken into consideration the outcome of these it is expected to find correlation between the member states' economic performance and the level of trust its citizens show in the European Parliament. Therefore we predict that when the economy does not go well, citizens will trust their government less. The second hypotheses suggests a relationship between economic performance of a member state and the trust in the European Parliament.

H1: Declining economic performance of a Member State leads to less trust in the European Parliament by Member States' citizens.

H0: Economic performance of a Member State has no effect on trust in the European Parliament by Member States' citizens.

2.2.2. Hypothesis 2: national trust vs. European trust

The downfall of trust in governments and institutions has been subject to studies since early 60's. This so called "democratic malaise" of decline in trust proved to exist in most advanced industrialized democracies in many different areas, from political parties to governments (Tanguay, 1999: 325-326). Blind (2006), in his literature review, identifies some fields where a decline in trust was found, such as the declining voter turnout (Gray and Caul, 2000, Eagles, 1999), youth disinterested in politics (Adsett, 2003) and decreasing levels of civic involvement (Saul, 1995, Putnam 2000)" (Blind, 2006: 11).

Chapter one already established that public trust in governments has an impact on the structure, behavior and position of the government and on the participation and compliance of the citizens in the system. Gaining people's trust is high on the EU Wish List, but it is obvious that the EU is not the only object of a trust deficit (see paragraphs 2.1.5 and 2.1.6) and that national governments suffer from this too. Interestingly, some scholars even proved a relationship between local trust and trust in the European Union level. Armingeon and Ceka (2013) for example, found that trust and support for the EU relies on the amount of trust in the national governments. These authors claimed that it does not matter if something negative happens on a national level or in the European level; both levels will experience the same response from its citizens (Armingeon and Ceka, 2013: 83- 86).

A study by Constantelos and Diven stated that the public support and/or criticism received by the EU mirrors citizen's opinion about their national government. These authors claim that there are two main causes for this reflection. Firstly, European citizens do not have enough information about the EU. And, secondly, there is a direct relationship between citizens and their local government. (Constantelos and Diven, 2010: 2). They concluded that "confidence in the European Union depends specifically on citizens' trust in major social and political institution, such as national governments" (Constantelos and Diven, 2010: 10). Opposite to Constantelos and Diven's findings, studies by Arnold et al did not show a

relationship between trust in the national level and trust in the European Union level. These authors claimed that "once accounting for country-level characteristics, this relationship lost its significance" (Arnold et al, 2012: 30).

Considering proven importance of trust in democratic governments and their institutions, the severe decline in trust in the European Parliament over the past years, and hence the – rightful – interest of the EU in the matter, and the contrary findings from previous studies, this research looks for a causal relationship between the citizens' trust in the electorate level of the European Union (European Parliament) and their trust on a national electorate level (national parliament). If such a relationship exists, from a practical point of view, it might be more promising for the European Commission and the EU as a whole to aim on increasing trust of citizens in their national parliaments rather than focusing their efforts on improving trust in the European Parliament (or the EU in general). Taken into account previous research and an – mere visual – observation of the trust levels both in the national parliament and the European parliament, it is expected to find a causal relationship between the two.

The first hypothesis therefore relates to the general phenomenon in Western democracies of erosion of trust in its governments and parliaments resulting in a lesser trust in the European Parliament:

H1: Less trust in Member States' government and parliament leads to less trust in the European Parliament by Member States' citizens.

H0: Trust in Member States' government and parliament has no effect on trust in the European Parliament by Member States' citizens.

2.3. Central research concepts

Although trust is one of the most popular topics in many fields, such as, sociologists (Gambetta, 1988), psychologists (Deutsch, 1962), organizational behavior scientists (Kramer, 1999), economists (Zucker, 1986), anthropologists (Ekeh, 1974), and political scientists (Barber, 1983), researches so far have not succeeded in finding a common definition for the term. The lack of a common definition has resulted in a large number of researches using the term trust and the appearance of many different concepts for the term (Bannister and Connolly, 2011: 138-139).

Trust is a difficult concept in the public administration field, mostly due to the existence of many challenges faced when studying trust (i.e. the variety of concepts). To avoid misunderstandings when interpreting the results of a study and the conclusions drawn by the authors from those results, it is fundamental that every research on the topic of trust from the public administration perspective clarifies this concept from the beginning and avoid different shades of meaning to the research (Bannister and Connolly, 2011: 138-139). In this research the term trust is used in the dependent variable (trust in the European Parliament) and in one of the independent variables. Unnecessary to reinvent the wheel and add another definition of the term in the already widespread literature, for this research a suitable definition of the term trust is sought amongst the ones formed in literature on public trust in government (e.g. Norris, 1999, Dalton 2004, Klingemann and Fuchs, 1995).

Kim and Choi conceptualize public trust in government in a manner that incorporates the most important characteristics of the term, such as, individual expectations and ethical values. These authors define public trust in government as *"a qualified belief or attitude that is held by the public, is influenced by positive future expectations, and is based on experience and perception which are affected by functional, ethical, and institutional characteristics of the government within some specific contexts. This definition encompasses a variety of important features of public trust in government: individual expectations; interpersonal relationships; institutional image; social structures; and ethical principles"* (Kim and Choi, 2012: 4). As the definition of Kim and Choi incorporates the elements individual expectations and institutional image, which both reflect in the research question, this research will make use of the definition by Kim and Choi for a better basic understanding of the term trust in government. However, it is important to consider that this research is aimed at trust in something much more complex than a government: trust in one of the European Union's body. It is more complex because a study on the level of the EU requires researchers to take into account the exclusive configuration of the Union (e.g. different bodies with their responsibilities, voting rights, distribution of power etc.).

The independent variables in these research are "trust in the national government and national parliament" and "Economic performance". For a better basic understanding in trust in a government it is necessary to elaborate on important concepts like "national parliament", "European parliament" and "economic performance".

The literature on public support and trust is mostly focused on analyzing citizens' trust level in their national government. Some works also cover this relation towards institutions and authorities. Though there are studies aiming specifically at (institutions of) the European Union, this area seems more scarcely

studied then the others (examples of studies are: Hooghe and Verhaegen, 2013, Constantelos and Diven, 2010, Arnold et al, 2012, Armingeon and Ceka 2013). Most of these studies emphasize the structure of the EU as complex, which results in an environment where citizens are confronted with multiple layers of government. There is the local level with the municipal office, the provincial level, the national level and finally the EU. Unnecessary to mention, each of these layers are composed of many different configurations resulting in higher density and more complexity. Hooghe and Verhaegen characterized the EU as a "complex multilevel structure of institutions that interact with each other" (Hooghe and Verhaegen, 2013). This research is concern to find the possible causes for decline in trust in one of the European Union's body, the European Parliament.

The European Parliament is the directly elected parliamentary institution of the European Union (EU) and therefore the organ that most prominently resembles the democratic nature of the European Union. The European Parliament's role in the European Union has been altered to a greater influence by each of the Treaties. Currently, the European Parliament is composed by 751 Members originally from its 28 Member States and it has legislative and budgetary power to establish together with the Council the future of the European Union. Elections to choose the members of the European Parliament have been held since 1979 by direct universal suffrage and every five years. The turnout to the European Parliament election has since 1979 shown a steadily decrease. From 62% in 1979 to 43% in its last election in 2014 (average in the European Union) (Fondation EurActiv, 2015).

The economic performance is represented by the progress on economic rates in a certain cities, regions, and countries, so on. There are different indicators of measuring economic evolution and each indicator takes in consideration some aspects and excludes others. This research focuses on the possibility of some of them having an impact in trust levels in the European Parliament. In order to find the answer it is necessary to analyze how economic indicators of each member state during the time have developed. The most common used methods to measure economic progress is based on the annual percentage growth rate of GDP, inflation and unemployment. This research will make use of these three indicators because they often appeared in previous studies on the topic trust in governments (Norris, 1999, Bouckaert et al, 2002) and also in trust in the European Union (Fischer and Hahn, 2008, Gros and Roth, 2010). This information is provided by the European statistics center (Eurostat).

The Eurostat defined the indicators use by this research as:

Table 2.1 *Indicator Description (Eurostat, 2015)*

Indicator	Description
GDP	"Data within the national accounts domain encompasses information on GDP components, employment, final consumption aggregates and savings. Many of these variables are calculated on an annual and on a quarterly basis. GDP is the central measure of national accounts, which summarizes the economic position of a country (or region). It can be calculated using different approaches: the output approach; the expenditure approach; and the income approach."
Inflation	"The harmonized index of consumer prices, abbreviated as HICP, is the consumer price index as it is calculated in the European Union (EU), according to a harmonized approach and a single set of definitions. It is mainly used to measure inflation."
Unemployment	"An unemployed person is defined by Eurostat, according to the guidelines of the International Labour Organization, as someone aged 15 to 74 without work during the reference week who is available to start work within the next two weeks and who has actively sought employment at some time during the last four weeks. The unemployment rate is the number of people unemployed as a percentage of the labor force."

Regarding the relationship between the independent variables to the dependent variable, this study assumes that a negative change in the independent variables negatively affects the depended variable. In other words, the less the economic performance the less the trust in the European Parliament; and the less the trust in the national institutions the less the trust in the European Parliament.

2.4. Control variables

Scholars found that trust can be influenced by factors other than trust in the national government and parliament and economic performance, which are analyzed in this study (see section 2.1). To be sure we test for a real relationship between the independent variables and the dependent variable used in this study we need to control for factors that proved to influence citizens' trust but are not included as independent variables. This is achieved by applying these factors as so called control variables when testing the hypotheses (Blatter and Haverland, 2012: 87).

As this study focusses on country level indicators and is not interested in finding differences within citizens' opinion on an individual level, it will not make use of individual control variables used by previous studies, such as, gender, age and education level (Armingeon and Ceka, 2007, Hooghe and Verhaegen, 2013, Arnold et al, 2012).

The criteria for including a factor (variable) as control variable are based on: (1) it is measure something other than the independent variables, (2) at least two studies concluded a relationship between that variable and trust levels and (3) the data for these variables is readily available.

Country level indicators we found in the literature are popularity of the national government, USD/EUR exchange rate for country, rate of unemployment (lower rates increases trust), Inflation, GDP, government debt/debt level, social expenditure/social spending, public expenditure/government expenditure and corruption. Table 2.2 shows if the criteria set out above are met per indicator.

Table 2.2 *Criteria per indicator*

Indicators	Type	Two studies	Data
popularity of the national government	Independent	yes	yes
USD/EUR exchange rate for country	Control	no	yes
rate of unemployment (lower rates increases trust)	Independent	yes	yes
Inflation	Independent	yes	yes
GDP	Independent	no	yes
government debt/debt level	Control	no	yes
government expenditure	Control	yes	yes
social spending	Control	yes	yes
corruption	Control	no	yes

From the information in Table 2.2 it appears that four of the indicators found are reflected in the independent variables. Of the remaining indicators only government expenditure and social spending appear in two or more studies.

The data for government expending is readily available in the World Databank (see 3.2.4.a. for details) but for some years it is missing for Ireland, Luxembourg, Hungary and Malta. Depending on what other data is missing we might have to exclude one or more countries from our dataset to keep our sample workable. As the missing data so far involves only 6 slots we assume SPSS will be able to cope if only this data is missing.

The data from social spending is obtained from Eurostat (see section 3.2.4.b. for details). Unfortunately it appears that Eurostat does not contain this data for four countries. This means 44 extra slots of missing data and maybe means that we have to exclude this variable or remove the missing countries from the data set. As the latter would mean a severe limitation of the dataset we prefer to keep these countries in the data set. As studies showed that social spending has an impact on trust we will try to run the test with

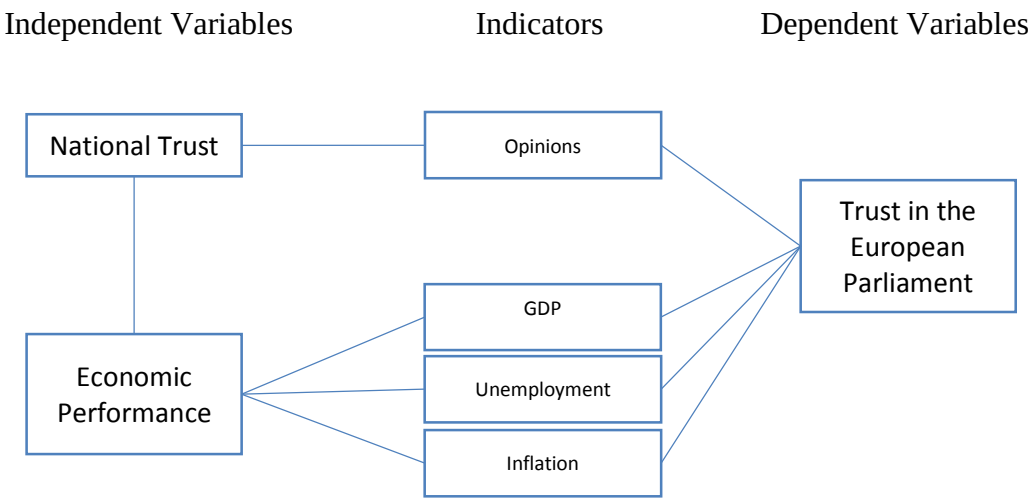
the available data and see if besides the macroeconomic indicators, this indicator has any influence in the decline in trust levels in the European Parliament or not.

2.5. Conclusion

Looking at the hypotheses and the variables, we can draw up a schematic relation between the dependent variable Y (trust in the European Parliament) and the main independent variable X (national trust or economic performance). Figure 3.1 below outlines the relationship between the dependent and independent variables described in the previous paragraphs.

The independent variables are shown on the left side where the line between the two to accounts for potential interaction effects between these independent variables. The indicators of the respective independent variables are displayed in the middle and the relation to the dependent variable is visualized by the lines on the right side.

Figure 2.1 *Relationship between dependent and independent variables*



Chapter 3 includes the research design in which the design of this study is drawn and the operationalization of the variables is discussed.

3. RESEARCH DESIGN

This chapter discusses the design applied to this study. The first paragraph discusses the research design chosen for this study and the statistical procedures used to analyze, interpret, present and organize the data provided by the Eurobarometer and the Eurostat. The second paragraph covers the process of defining variables into measurable factors (operationalization). This process helps defining concepts accurately measuring the desired outcomes and ensures validity and reliability. More precisely, it describes the measurement of the dependent variable, the independent variables and the control variables.

3.1. Design of the study

The aforementioned research question presents two hypotheses drafted based on theoretical review in the literature on the topic trust. It is an observational study because this research is looking at a social reality and bases its information on data indicators while looking for a causal connection between the independent variables and the dependent variable. We could additionally mention that the observational study is feasible to this research question due to the external validity. “External validity is related to generalizing, it refers to the approximate truth of conclusions the involve generalizations”. This means that if we observe that one change affects (or not) the social reality, it is likely to observe this effect (or the lack of effect) in other cases where the conditions are the same.

This research is an X-oriented study because it looks to establish to what extend X (the effected on economic performance and generalized trust levels) affects Y (the trust levels in the European parliament).

Co-variation researchers “can only be generalized to the population of cases that display the same scores on all the control and independent variables as the cases that have been studies” (Blatter and Haverland, 2012: 69). This research is a co-variation study because it is interested in the relevance of the impact of a change (the independent variables) and its possible affect (the dependent variable). It is aimed “to study a specific case in which a specific change has occurred and the researcher must establish whether this change had the intended effect” (Blatter and Haverland, 2012: 44).

The co-variation studies can be spatial, temporal or both. Variation which is only spatial, known as cross-sectional design, involves case comparison without time variation. Intertemporal comparison (temporal variation; or time-series) involves a before/after approach applied to a certain change in the independent variable over time; in other words, it is a comparison over time in individual spatial unit (e.g. countries). This study compares the trust level in the national government and national parliament, trust level in the

European parliament and the national economic performance over time (11 years) over several countries, and aims to find causal relationship. For this research the most appropriate design therefore is the intertemporal cross-section comparison, further referred to as the time-series-cross-section design (see paragraph 3.1.1).

3.1.1. Time-series-cross-section (TSCS) design

The research design applied to this study is the observational time-series-cross-section design. This design is applied for the countries included in the sample over the data for every year from 2004 up to and including 2014.

"An experiment is a research design in which the researcher both controls and randomly assigns values of the independent variable to the participants." (Blatter and Haverland, 2012: 72.) In political science research situations it is often impossible to control exposure to different values of the independent variables, so "implementing an experiment often proves to be unworkable, and sometimes downright impossible" (Blatter and Haverland, 2012: 82). For example, controlling the application of independent variables in an experiment about trust with citizens of member states is (profoundly) impossible. Dividing the interviewed population in sample groups while controlling the independent variables would be difficult; not to mention that *trust* is a complex relation and cannot be measured before and after exposure to one independent variable.

Contrary to an experimental research design, which aims to control over all factors that may affect the result of an experiment, an observational research design is "a research design in which the researcher does not have control over values of the independent variable, which occur naturally" (Kellstedt and Whitten, 2013: 58). For this study we have to use pre-existing conditions and survey records, so we are bound to an observational research design.

Observational studies can roughly be divided in two flavors: *cross-sectional* or *time-series* (Blatter and Haverland, 2012:82). A cross-sectional design concentrates on variation amongst spatial units and explaining the variation across them at the same time, while a time-series observational study is a comparison over time in individual spatial unit (Blatter and Haverland, 2012: 85). A disadvantage of using a time-series design on a research relates to the external validity of the study. It is important to have as many cases as possible in order to increase the external validity. This study compares the trust level in the national government, national parliament and national economic performance to the trust level in the European parliament over time per country, but also cross-country and aims to find causal relationships.

The data available for this study is included in the Eurobarometer surveys conducted twice a year and covering a great time-span. Since the type of question for this study relates both to the time-series design and the cross-sectional design while the necessary data for doing a combination of both is available, a combination of the cross-sectional design and the time-series design is suited for this study; such a design is also – logically – known as the Time-Series-Cross-Section (TSCS). Beck defines a TSCS observational study as "comparable time series data observed on a variety of units" (Beck, 2006: 1). As data of a number of countries is observed over a certain time period, such a design seems to suit the analyzed phenomena most. Moreover, it appears that this design is used often to analyze economic data (e.g. Biørn, 2013: 5).

The European Union currently has 28 member states and due to time-data limitations only 25 are eligible for the sample group to perform an analysis on. Four countries (Cyprus, Latvia, Lithuania and Malta) have been left out from the sample because for some of the control variables data was limited or not available at all.

When selecting the most appropriate case study design there are two possibilities: Co-variational Analysis (COV) and Congruence Analysis (CON). The COV is favored when the researcher is interested in finding out if a specific issue is able to affect the social reality; this is the case in this research.

The N design refers to the subjects used in a sample and can be either large or small. A small-N (or N=1) design focuses on the behavior of a single individual or a small group of individuals. In a large N design, participants are grouped and treated not as individuals but as a whole and means are used to describe the average behavior of the group. The Eurobarometer results are drawn from survey's amongst 1000 participants per member state. Though the raw data is unavailable for use and we have to suffice with the score results from this survey, previous studies performed in this field show that statistical analysis is widely used on the outcomes Eurobarometer surveys. Contrary to small-N design, where evaluation data often relies on visual inspection of the, large-N design research uses statistical tests to determine the reliability of the data. Hence, we assume that the data qualifies for use in a large-N design.

3.1.2. Population and sample

The total population exists of all 28 member states of the EU, as per 2015 (APPENDIX A). We considered obtaining the raw data of the surveys that include answers of all the citizens that took the surveys. This would, however, be a cumbersome procedure and would require do several levels of analysis and adding another level to the nested model. Instead we use the aggregated data per country. The sample of the countries should, in this research, be as big as possible to increase to external validity. Therefore only the

countries that were not a member of the EU over the complete time period of this research or not all the values of the dependent variable and independent variables are known, are excluded.

As mentioned earlier for some indicators data is missing. In addition a few fractions of data are missing for the independent variables. It appears that for a few countries the missing data applies to more than one indicator: Luxembourg, Lithuania and Malta. When we remove these countries from the dataset this eliminates 27 slots of missing data. As still 22 countries will be left with 242 cases (22 times 11) we chose to eliminate these countries from the dataset. The overview in APPENDIX A shows an extra column with the eliminated countries in yellow. A sample set of the data is included in APPENDIX C.

3.1.3. Multilevel Linear Regression Analysis

This study aims to verify for a relation between the economic performance influencing the trust level in the European Parliament, and/or the trust in the National Government and the National Parliament and the trust level in the European Parliament. Such a study requires a statistical model validating the information and establishing a relationship or prove a connection or disconnection between the dependent variable and the independent variables.

A multiple regression analysis is used when data is represented in linear model in order to predict values of a dependent variable from more than one independent variable (Field, 2013: 1211). Over due course of this study it appeared that some assumptions for the Multiple Regression Analysis could not be met (see Section 4.4). It appeared that the data included indicators nested within a variable and that the data has a hierarchal structure. Under such circumstances, and because the Durbin-Watson Statistic assumption was not met, it is recommended to perform a Multilevel Linear Regression Analysis (MLRA) which is more suited for data with a hierarchy (Fields, 2013: 2876).

There are different MLRAs varying according to using a fixed or random intercepts and/or a fixed or random slopes for the variables. For choosing the most appropriate model (within the boundaries of our capabilities) we start with a simple model and move up to a more complex one. We end by using a Model with a Random Intercept and Fixed Predictors.

3.1.4. Reliability and validity

Reliability and validity of the measurement are fundamentally important when designing a study. To be reliable a measure procedure, experiment or test need to yield the same result on repeated trials. Without a reliable measurement researchers cannot claim the generalizability of their research. This research aims

to verify the variables over a longer period time by using the same measurements resulting in a reliable research. The validity refers to the "degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure. Validity is concerned with the study's success at measuring what the researchers set out to measure" (Howell et al, 1994 – 2012). There is internal and external validity to should be consider in a study. The internal validity of this study is guarantee by the use of a time-series-cross-section design. When studying a phenomena variation within a certain amount of time (in our case ten years), it is possible to guarantee that the dependent variable does not cause the independent variable. The external validity in a research can be increase by the use of a big sample. In our study, the external validity is assured by the selection of as many cases as possible within the countries member states of the European Union (data of all member states will be used when testing the hypothesis, except for the countries with no data available from 2004). Additionally, for the external validity, this study will make use of control variables to assure that the results can be generalized.

3.2. Operationalization

3.2.1. Dependent variable trust in the European Parliament

The dependent variable is supposed to be caused by or depend on the independent variable (Johnson et al, 2008: 65). The dependent variable in the two hypotheses tested in this research is trust in the European Parliament.

In order to measure the trust in the European Parliament, this research is going to use data published by the European Commission in the Eurobarometer. The surveys of the Eurobarometer are, among others, related to enlargement, social situation and the euro in the EU. Based on the evolution of the citizen's opinion this research intends to compare the difference in support for the European Parliament within the member states in order to verify the possible causes of variation in these trust levels. The surveys provided by the European Commission are valid and reliable and many studies about the European Union use the data gathered by these surveys (see Hooghe and Verhaegen, 2013, Armingeon and Ceka, 2007, Arnold et al, 2012, Roth et al, 2011).

The indicator for this dependent variable is going to be measured via the results on the following question: "And, for each of them, please tell me if you tend to trust it or tend not to trust it? The European Parliament?"

This research will make use of this question because the answer provides a direct reflection on public support to the European Parliament in a general way. To efficiently work with the data provided by the

Eurobarometer it is necessary to boil down the survey results on a particular question to one number instead of three (3: percentage trust, percentage do no trust and percentage don't know). In line with other studies (e.g. Gros and Roth, 2010), this research will make use of the so called "net trust". The 'net trust' is computed by subtracting the percentage of those who trust from the percentage of the surveyed that answered with "do not trust". This approach allows to control fluctuations caused by the remainder category of "don't know". Because we are using the "net trust", the measurement of the dependent variable, the "trust in the European Parliament" is categorized as ordinal variable. The Eurobarometer's surveys have been formulating the alternatives for its questions such as "tend to trust", "tend not to trust" and "don't know". Ordinal variables "are also variables for which cases have values that are either different or the same as the values for other cases". Additionally, this question is already been used to measure public support in other studies (see Armingeon and Ceka, 2007).

3.2.2. Independent variable economic performance

In order to measure the independent variable economic performance in the sample countries from the European Union, this research will make use of three indicators: growth in GDP, the inflation rates and the unemployment numbers during the 2004 until 2014. The second and third indicators of this independent variable are the inflation rates and the unemployment rates. Both indicators are analyzed via publications from the Eurostat: the Harmonized Indices of Consume Prices (HICP) (Eurostat, 2015) for the inflation and the Harmonized unemployment rates for unemployment. These indices provide the level of inflation rate in the EU. Hence, the units for analysis in the independent variable "Economic performance" are: GDP, inflation and unemployment levels.

a. Indicator GDP

The gross domestic product (GDP) is used as indicator in many studies to analyze whether a certain economy from a country is doing well or not. Growth in GDP per capita is very often included in studies as an indicator measuring economic performance on the topic trust in government (e.g. Gros and Roth, 2011; Gros and Roth, 2010; Uslaner, 1999).

Eurostat defines real GDP per capita "as the ratio of real GDP to the average population of a specific year. It is often used as an indicator of how well off a country is, since it is a measure of average real income in that country. However, it is not a complete measure of economic welfare. For example, GDP does not include most unpaid household work. Neither does GDP take account of negative effects of economic activity, like environmental degradation." (Eurostat, 2015).

Besides the fact that GDP is often found in previous researches it is interesting to mention that the variation of GDP (and the other macroeconomic indicators) can economically directly affect the citizen's behavior in a country. Therefore, it is natural to associate a direct influence made by these economic results in citizens' trust levels in a government.

In this research, the so called 'growth of Real GDP per capita' will be used as indicator. Although, there are other ways of measuring GDP, such as the 'Gross GDP', available on Eurostat, the 'growth of Real GDP per capita' fits our study better because it allows both a one country over time analysis and a comparisons between countries. In addition, while 'gross GDP' shows the national health of a country, GDP per capita shows the same number but presented per citizens, thus showing a direct individualized results in the standard of living.

b. Indicator Unemployment rate

Unemployment is a component of the classical macroeconomic indicators (Gros and Roth, 2011; Gros and Roth, 2010; Bouckaert et al, 2003). Like inflation and growth of Real GDP per capita, unemployment is a ratio variable (presented in percentage).

The Eurostat uses the definition of unemployed person from the International Labour Organization (ILO). "Unemployed persons comprise persons aged 15 to 74 who: - are without work during the reference week; - are available to start work within the next two weeks; - and have been actively seeking work in the past four weeks or had already found a job to start within the next three months." (Eurostat, 2015).

c. Indicator Inflation (HICP)

Inflation composes together with growth of GDP per capita and unemployment the classical macroeconomic indicators and can be found in many studies on the topic trust in institutions (Paldam, 1993; Gros and Roth, 2010). Inflation is classified as a ratio variable because it is presented in percentage (0% to 100%, where a positive number means the presence of a positive inflation).

The Eurostat measured inflation levels in the European Union, and some other countries, by using the Harmonized Indices of Consume Prices (HICP). The HICP is classified as "economic indicators constructed to measure the changes over time in the prices of consumer goods and services acquired by households. They are calculated according to a harmonized approach and a single set of definitions." (Eurostat, 2015).

Eurostat was chosen as the data provider due to reliability of these data and the easy availability of the data for the years 2004 up to 2014. Our research focusses on analyzing each country over time but the

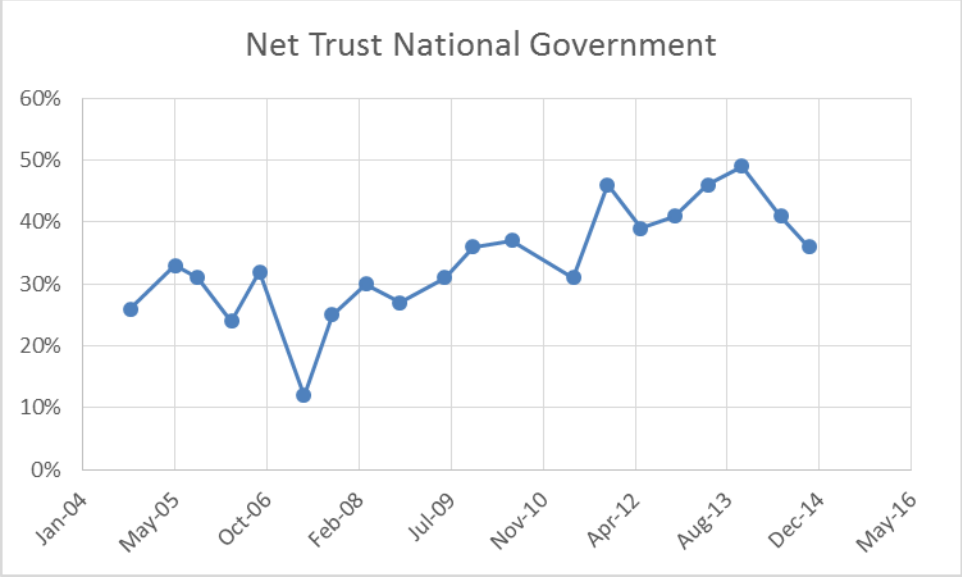
results should also allow for a cross country comparison of the results. HICP provides in the possibility to use one indicator designed for comparing countries but at the same times allows for per country over time approach. Hence this research uses HICP.

Eurostat provides monthly and annual data on the inflation percentage. Though a monthly approach would provide more data and possibly a more significant outcome, the data for other indicators used in this study is only available bi-annual or annually. For the data points selection this study is bound to the data which is most scarcely available – which is annually – to which the selection of other indicators will be adjusted. This research will therefore use the published average annual results.

3.2.3. Independent variable trust in National Government & National Parliament

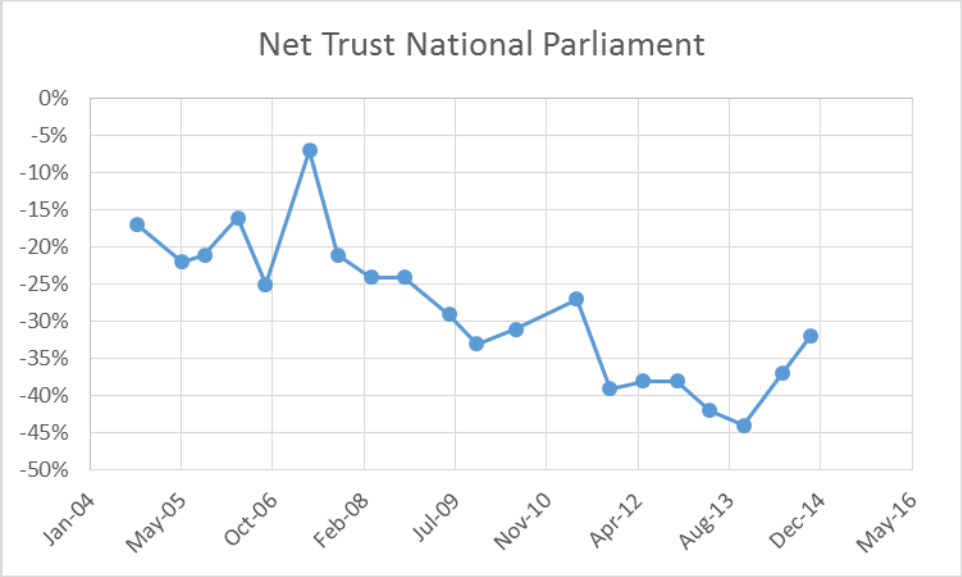
In order to measure the independent variables on trust, this research will analyze surveys performed by the Eurobarometer on the question: "I would like to ask you a question about how much trust you have in certain institutions. For each of the following institutions, please tell me if you tend to trust it or tend not to trust it". Institutions: the (NATIONALITY) Government and the (NATIONALITY) Parliament. A chart with the average in the EU for trust in the National Government is included in Figure 3.1 and the same chart for trust in the National Parliament is included in Figure 3.2. The first figure shows a decline in the average trust in the EU's National Parliament, while Figure 3.1 shows a slight increase in average trust in the National Government.

Figure 3.1 *Net Trust in National Government*



The Eurobarometer does not classify the term “trust” per se. The surveys just treats this term as one of the topics to be surveyed, the same as satisfaction, awareness, fear, interest, meaning, opinion, feelings, etc. The questions are not explained to the European Citizens at the moment of the survey, which means that the answer of the interviewed person depends on a personal understanding of the terms used in the question. Observation of the trust levels charts shows great variety of trust levels over the years in the respective countries. For simplicities sake – and because we don’t have means to compensate the results for possible wrongful interpretation of the questions by the individual – we assume that an omission of the definition in the survey will not result in a biased survey outcome.

Figure 3.2 *Net Trust in National Parliament*



3.2.4. Control Variables

As mentioned before we focus on country level indicators and will not make use of individual control variables used by previous studies, such as, gender, age and education level (Armingeon and Ceka, 2007, Hooghe and Verhaegen, 2013, Arnold et al, 2012).

In section 2.4 control variables were selected by the following criteria: (1) is measure something other than the independent variables, (2) at least two studies concluded a relationship between that variable and trust levels and (3) the data for these variables is readily available. The variables Government Expenditure and Social Spending met these criteria and will be elaborated on in more detail.

a. Government expenditure

The Eurostat presents the data on Public expenditure as 'total general government expenditure' and it defines the term as including the following items: "intermediate consumption, gross capital formation, compensation of employees, other taxes on production, subsidies, payable property income, current taxes on income, wealth, etc., social benefits other than social transfers in kind, social transfers in kind – purchased market production, other current transfers, adjustments for the change in pension entitlements, capital transfers and acquisitions less disposals of non-financial non-produced assets." (Eurostat, 2015).

This research will make use of the results on Public expenditure as a percentage of the GDP which data is provided by the World Databank under World Development Indicators (General government final consumption expenditure (% of GDP) (NE.CON.GOVT.ZS)). The World Databank defines Public Expenditure as "all government current expenditures for purchases of goods and services (including compensation of employees). It also includes most expenditures on national defense and security, but excludes government military expenditures that are part of government capital formation."

b. Social Spending

In the literature review, often social spending appeared to have an impact on trust in governments (Bouckaert et al, 2003; Gros and Roth, 2010).

The Eurostat has not published information on social spending in 2013 and 2014, therefore, this data will be extracted from the OECD database. The OECD presents the social spending as 'Social Expenditure Database' (SOCX). The SOCX is described as "developed in order to serve a growing need for indicators of social policy. It includes reliable and internationally comparable statistics on public and mandatory and voluntary private social expenditure at program level. SOCX provides a unique tool for monitoring trends in aggregate social expenditure and analyzing changes in its composition. The main social policy areas are as follows: Old age, Survivors, Incapacity-related benefits, Health, Family, Active labor market programmes, Unemployment, Housing, and Other social policy areas. SOCX aggregated data are described in Adema, W., P. Fron and M. Ladaique (2011)."

3.2.5. Prediction regression equation

The first hypothesis assumes that there is a relation between economic performance of a member state and the trust in the European parliament of its citizens. This causal relationship can be expressed as the following formula:

$$EP\ Trust_{i,t} = f(Growth_{i,t}, Unemployment_{i,t}, Inflation_{i,t}, Z_{i,t})$$

Where I represents each country and t represents each time period; EP Trust is the net trust amount for country I during period t; $Growth_{i,t}$, $Unemployment_{i,t}$, $Inflation_{i,t}$, $Z_{i,t}$ are respectively growth of GDP, unemployment, inflation and important control variables (Public $expenditure_{i,t}$, social $spending_{i,t}$).

In order to find the relation between the trust in the national government and the national parliament and trust in the European Parliament, the following formula will be used:

$$EP\ Trust_{i,t} = f(NG\ Trust_{i,t}, NP\ Trust_{i,t}, Z_{i,t})$$

Where I represents each country and t represents each time period; $EP\ Trust_{i,t}$ is the net trust amount for country I during period t;$NG\ Trust_{i,t}$, $NP\ Trust_{i,t}$, $Z_{i,t}$ are respectively trust in the National Government, trust in the National Parliament and the control variables.

The next chapter describes these indicators of the variables in more detail, gives an overview of the multiple regression analysis and goes through the steps of the multilevel analysis of which the results will also be analyzed.

4. ANALYSIS

This chapter shows the information collected and describes the way this data is analyzed using statistical research methods widely used in the academics and the SPSS program. The first section organizes and summarizes the data studied while providing a descriptive analysis of the main indicators. The relationship and assumptions for causal determination between the indicators in the hypothesis are explained in section two. The last sections covers the multiple regression model and its results.

4.1. Descriptive analysis

This section explores the date we are working with by analyzing and describing the minimum and maximum scores of the indicators, their means and how well do these means represent the data (which is indicated by the standard deviation). The statistics of the four main indicators, economic performance, trust in the national government, trust in the national parliament and trust in the European Parliament are analyzed in more depth. The analysis of every indicator is based the total number of cases for which all the data is included (cases for which data is missing are omitted).

The minimum and maximum, mean, mode, median and standard deviation (which shows how well the mean represents the data) for these indicators are displayed in Table 4.1 below. The data results in 242 cases (N=242) consisting of 22 countries over 11 years. For the control variables it appears that for 22 cases data is missing on Social Spending (i.e. Cyprus and Latvia) while 3 cases are missing for Government Expenditure (Ireland, Hungary and Poland over 2014).

Table 4.1 *Descriptive Statistics per Variable*

	Minimum	Maximum	Mean	Mode	Median	Std. Deviation
Trust European Parliament	-50.0%	60.0%	19.8%	30,0%	25.0%	22.7%
Trust National Government	-84.0%	48.0%	-23.0%	-68.0%	-25.0%	30.9%
Trust National Parliament	-86.0%	5.,0%	-18.6%	-74.0%	-18.0%	35.0%
GDP Fluctuation	-14.7%	14.7%	1,4%	1.6%	1,8%	3.5%
Unemployment Rate	3.4%	27.5%	8.8%	8.4%	7.9%	4.3%
Inflation (HICP)	-1.7%	10.6%	2,7%	1.7%	2.2%	1.6%
Social Spending	12.7%	32.0%	23,3%	20.7%	23.2%	4.3%
Government Expenditure	-27.5%	36.4%	4.1%	-27.5%	3.8%	6.8%

The most important variables, i.e. the dependent and independent variables are worth analyzing to a deeper level which analysis we will outline below per variable. As regards the control variables we consider it sufficient to remark that their range is considerably less than the other indicators.

4.1.1. Trust in the European Parliament (Dependent variable)

Table 4.1 shows a few interesting details when Trust in the European Parliament is compared to Trust in the National Government and Parliament. First of all the range is less at 110 between a higher minimum level of -50% and a higher maximum level of 60%. More striking is a median of 25% which is 50% and 43% higher than Trust in the National Government respectively Parliament. In addition the standard deviation is less which means that most cases are closer to the median then is the situation for Trust in the National Government and Parliament.

APPENDIX D shows the frequency distribution for Trust in the European Parliament. This shows a different picture from the two frequency distributions before this one. It appears that most cases are between -15% and 50% so within a range of 65 points. Looking at the numbers below -10% it appears only a small number of cases are around the low end of trust. Though the frequency per percentage isn't higher than 6 cases, they make up for 23 cases in total.

We can't derive from the histogram if these cases are made up by only a few countries or more countries but in a specific year. The data file shows that the 23 cases where the trust level is below 10% can be boiled down to the UK (2005-2014), Spain (2011-2014), Cyprus (2013-2014), Greece (2011-2014), Slovenia (2013) and Portugal (2013). For countries experience a trust level below 10% over more than one year the trust levels over the past 11 years are plotted in to see how they stand out against each other.

Figure 4.1 *Trust Level European Parliament in 4 Countries*

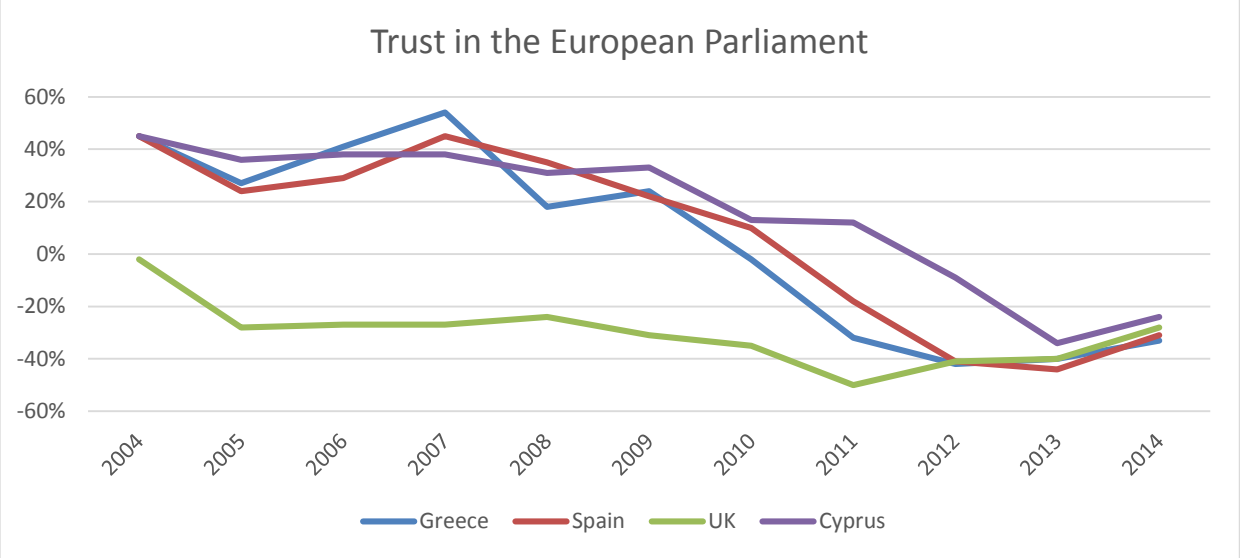


Figure 4.1 shows that over the past 10 years the citizens of the UK apparently haven't had much confidence in the European Parliament, but the same seems to apply to their trust in the National Government and the National Parliament. From 2004 to 2014 the citizens of the UK never experienced a net trust level in any of these indicators, but the trust in the European Parliament doesn't drop as much as the other two do in 2009. Since the citizens of the UK generally seem to trust less in 'political institutions' as the Government and the Parliament it's not a 'glitch' in the data we have no reason to act upon these numbers. Looking for reasons why the citizens of the UK show a generalized lesser trust goes beyond the scope of this thesis.

Spain shows a start of the decline in trust in the European Parliament in 2008 when the Spanish financial crisis started knows as the Great Recession in Spain, which decline gets stronger in 2010 when the crisis persisted and developed into an economic crisis (Bentolila et al, 2012). The decline in trust in the European Parliament does not stand alone as trust in the National Government and National Parliament also show a decline over these years. Like Spain for Cyprus and Greece we can observe a decline in trust in the years when the economic crisis hit the European Union. It is general knowledge that Cyprus suffered a great banking crisis and the economy of Greece is still a major worry in the European Union. The graph shows that the trust levels (National Government, National Parliament and European Parliament) per country seem develop in a likewise way. In addition we found that when strong declines in trust started to appear, they seem to correlate to the development of the economic performance (e.g. crisis). None of the cases that appeared at the far end of the frequency histograms caused worry or unexplainable. In contrary, further analysis of these cases seem to point in the direction of a relation between the dependent variable and the independent variables.

4.1.2. Economic Performance (Independent variable)

The first hypothesis in this research assumes that the decline in trust in the European Parliament is related to a negative economic performance. In chapter 3 the macro-economic indicators GDP, unemployment and inflation rates (HICP) were identified as constituting the variable economic performance of a member state. Let's take a closer look at the data for these indicators.

a. GDP Fluctuation

Taking a closer look at the GDP fluctuation it appears that a GDP growth of 1.6% occurs most often (mode) and is also close to the average GDP of 1.4%. The standard deviation can be illustrated by the GDP frequency distribution histogram in APPENDIX D. It appears that the standard deviation of 3.5% is

explained by a few cases close to the minimum GDP of -14.7%, which is quite low compared to the mean and medium. The frequency distributions shows that 2 cases experienced a strong decline in GDP compared to the other cases. This graph does not tell us if it is one country experiencing a strong decline in GDP over 2 year or if 2 countries experience a strong decline in GDP in one year or what could be the cause of this strong decline. Taking a close look at the data it appears that Latvia and Estonia experienced a decline in GDP of 14.20% respectively 14.70% in 2009. Latvia's economy entered a severe recession in 2009 (IMF, 2010) while low domestic and foreign demand depressed Estonia's GDP (Mardiste, 2009).

Overall the frequency distribution tells us that approximately 170 cases have a GDP between 0 and 4%, while there are 29 cases of a GDP over 5% and approximately 45 cases where the GDP declined between 0 and 5% and another 15 cases of a decline between 5% and 10%.

b. Unemployment rate

The average unemployment rate measured over all cases is 8.8% while an unemployment rate of 8.4% seems to occur most often. Looking at the Unemployment Rate frequency distribution histogram displayed in APPENDIX D it appears that a few cases have probably increased the standard deviation to 4.3%. The histogram shows that there have only been 7 instances of an unemployment rate higher than 20%. When we investigated the data we found that Spain and Greece had an unemployment rate over 20% in the years 2011 to 2014 respectively from 2012 to 2014 which can be contributed to the severe economic crisis both countries have suffered.

From the histogram we can further conclude that there are around 55 cases where the unemployment rate is between 7-8%, which explains the mode of 8.4%. Around 25 cases experienced an unemployment rate between 3 and 5% and around 65 cases experienced a rate between 10 and 20%. These rates do not seem to require additional investigation of explanation.

c. Inflation rates

Inflation rates appear to vary between -1.7% and 10.6% which means it varies within a range of 12.3%. The total sample shows an average of 2.7% where an inflation rate of 1.7% occurs most often (mode). The standard deviation of 1.6% suggests that most cases fall within 0.3% and 4.2% inflation. To further investigate the distribution of the cases we take a closer look at the HICP frequency distribution shown in APPENDIX D.

The frequency distribution confirms our analysis of the mean and standard deviation but also shows that only a few cases appear experienced an inflation of 5% or a negative inflation. Three cases hit the double

digits with 2 moving around 10% and one near 15%. The data file shows that Estonia and Latvia are responsible for these numbers. Estonia experienced 10.6% inflation in 2008 and Latvia 10.1% and 15.3% in 2007 and 2008 respectively. It is striking that these countries suffered a severe economic recession in the year after these high inflation rates. Analyzing this development however reaches beyond the scope of this research.

Though analysis of the indicators reveals a few extreme cases in GDP fluctuation, Unemployment and Inflation these cases appear valid and consequences of real world events such as economic crises. Hence, we find no reason to take action by excluding data from the sample.

4.1.3. Trust in the National Government and National Parliament (Independent variable)

The second hypothesis includes trust in the national government and trust in the national parliament as indicators of the independent variable. Table 4.1 shows that the minimum net trust in both the national parliament and government hit a low -86% and -84%. To illustrate how the trust levels in the National Government and the National Parliament compare to the Trust levels in the European Union, these trust levels are shown in Figure 4.2 respectively Figure 4.3 for the four countries that stood out in Section 4.1.1.

Figure 4.2 *Trust in the National Parliament in four countries*

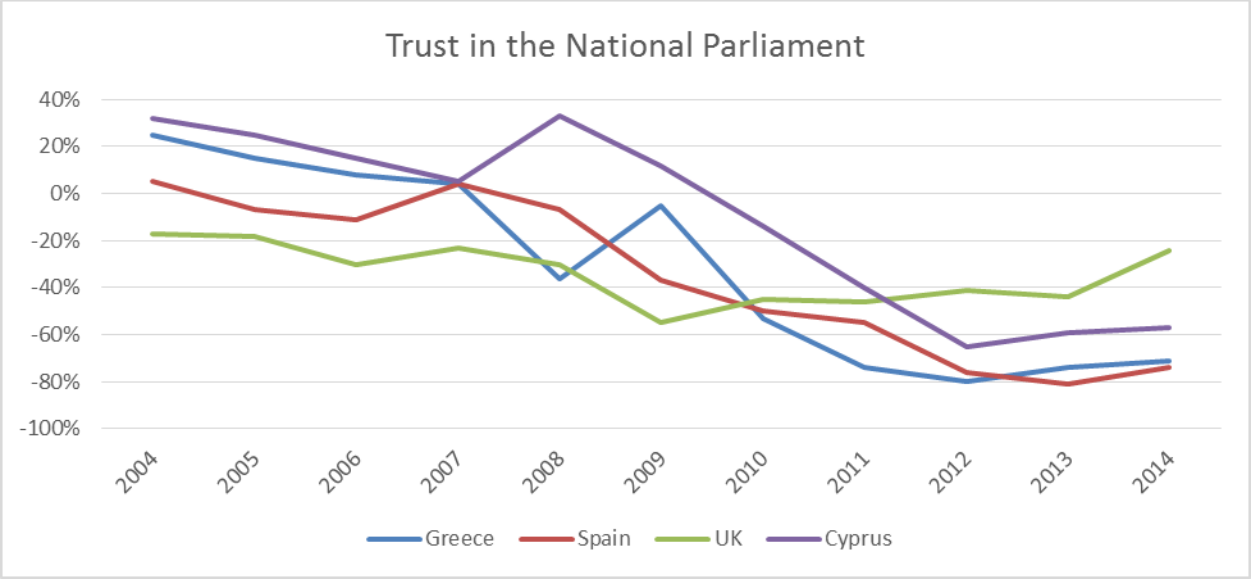
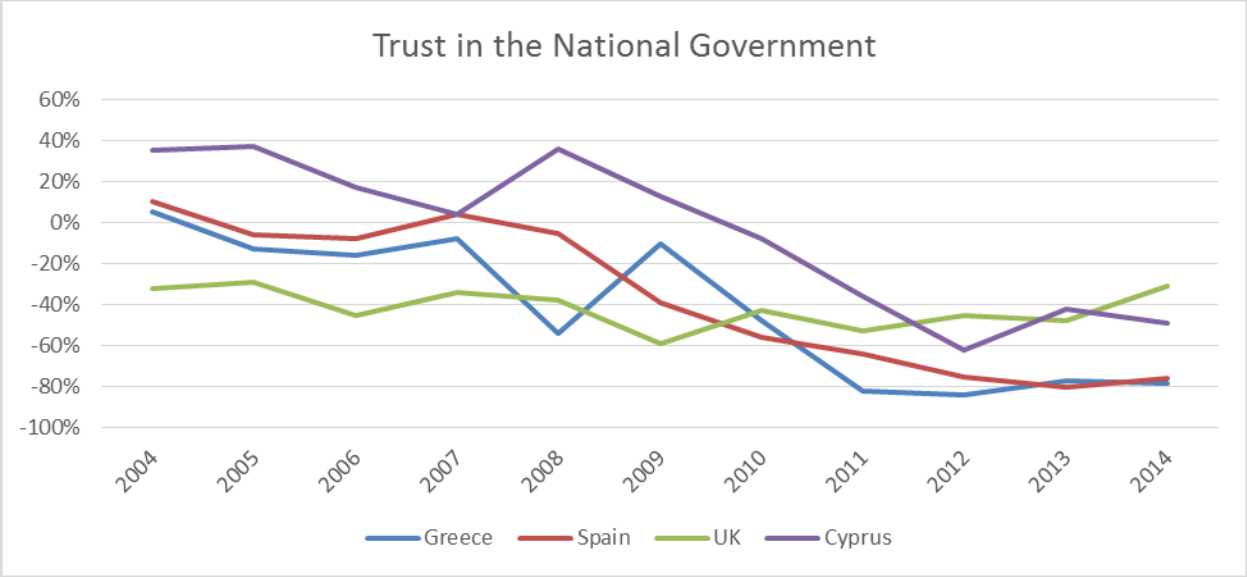


Figure 4.3 *Trust in the National Government in four countries*



Considering that the net trust level is determined by subtracting the "Tend Not to Trust" percentage from the "Tend to Trust" percentage while ignoring for the "Do Not Know" percentage, it appear that there are a few cases with astonishingly low trust levels. Taken into account the maximum trust levels of 48% and 52% in National Government and Parliament respectively, we can conclude that the range between the cases is a high 132 and 138 respectively. The difference between the Mode and Median suggests trust levels are wide spread and a standard deviation of 30.9% and 35.0% confirms this image.

To further analyze the data, frequency histograms have been plotted in APPENDIX D for trust in the National Government and trust in the National Parliament respectively.

Though the frequency histogram for the National Parliament shows a few strong peaks there is not much more we can extract from this figure as these peaks are quite wide apart. There do not seem to be 'lonely' cases, but it could be possible that only a few countries are responsible for the extremes which would mean that the trust levels in most countries variate between a smaller ranges. As the cases do not seem really unique (added up they make up over 40) we don't consider it necessary to investigate them into more detail.

Besides a missing decline in the middle, the frequency histogram for Trust in the National Government shows a similar distribution of cases but within a different range. It seems there is an amount of cases grouping around the ends of the ranges (just like Trust in National Parliament) but between -60% and 20%

the distribution seems quite evenly spread. This frequency distribution does not seem to fuel further analysis of the data.

4.1.4. Conclusion

The analysis of the indicators GDP fluctuation, Unemployment and Inflation reveals a few extreme cases in the years 2008, 2009 (GDP Fluctuation and Inflation; Latvia and Estonia) and between 2011 and 2014 (Unemployment Rate; Greece and Spain). These cases appear consequences of real world events such as economic crises and do not seem to compromise the validity of the date, we find no reason to excluding data from the sample.

Taking a closer look at the trust levels showed that there are some cases at the extreme negative end of the trust levels. These cases were quite numerous in the National Government and Parliament, but the frequency histogram on Trust in the European Parliament showed a cluster standing out on the negative side. Examination of this cluster of cases consisted of the countries UK, Spain, Cyprus and Greece that experienced a negative trust stronger than 10% for more than one year. A close look at the UK revealed that the citizens of the UK are overall show a negative trust level in their Government and Parliament and the European Parliament; apparently their citizens generally trust less public institutions like these. Spain, Cyprus and Greece all appeared to have been truck hard by a financial or (after that) an economic crisis. This conclusion supports the first hypothesis that a decline in economic performance causes less trust in the European Parliament. For all four countries that stood out in trust levels in the European Parliament it looked like fluctuation in trust in the European Parliament correlated in some way with trust in the National Government and Parliament, though trust in the European Parliament showed less extreme levels. This observation supports the second hypothesis that a decline in trust in the National Government and the National Parliament causes a decline in trust in the European Parliament.

4.2. Bivariate correlation coefficient

A bivariate analysis helps determining empirical relationship between two variables (Fields, 2013: 1021). To measure a linear correlation between the dependent variable Trust in the European Parliament and the indicators of the independent variables Trust in the National Government, trust in the national Parliament, GDP, inflation (HICP), unemployment rates we use Pearson's correlation coefficient. Pearson's correlation coefficient provides the intensity and direction of these relationships and is, together with the one tailed significance of each correlation and the number of cases contributing to each correlation (Field, 2013: 1259), shown in a correlation matrix displayed in Table 4.2.

Table 4.2 *Bivariate Correlations dependent, independent variables and control variables*

Correlations

		net-EP	net-NP	net-NG	gdp	unemploy ment-rate	HICP	social-spending
net-NP	Pearson Correlation	,420**						
	Sig. (2-tailed)	,000						
net-NG	Pearson Correlation	,485**	,917**					
	Sig. (2-tailed)	,000	,000					
gdp	Pearson Correlation	,293**	,133*	,198**				
	Sig. (2-tailed)	,000	,045	,003				
unemployment-rate	Pearson Correlation	-,344**	-,533**	-,554**	-,206**			
	Sig. (2-tailed)	,000	,000	,000	,002			
HICP	Pearson Correlation	,244**	-,041	,058	,229**	-,182**		
	Sig. (2-tailed)	,000	,544	,383	,001	,006		
social-spending	Pearson Correlation	-,315**	,229**	,014	-,390**	,031	-,341**	
	Sig. (2-tailed)	,000	,000	,831	,000	,637	,000	
gov-exp	Pearson Correlation	,404**	,141*	,212**	,303**	-,228**	,209**	-,318**
	Sig. (2-tailed)	,000	,033	,001	,000	,001	,002	,000

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

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

The correlation coefficient indicates the strength of the relationship (Field, 2013: 1022). Net trust in the National Parliament (.420), the trust in the National Government (.485), the inflation HICP (.404) and government expenditure (.404) show a moderate relationship. The GDP (.293), social spending (-.315) and unemployment rates (-.344) are considered weak. Negative correlations for unemployment rate and social spending mean that an increase in these indicators has a negative influence in trust levels in the European Parliament. In other words, countries with more unemployment and higher social spending will present lower levels of trust in the European Parliament. This implies that only a partial correlation is proved for the first hypothesis (only unemployment rates shows correlation with trust in the European Parliament) and insufficient correlation is found to support the second hypothesis.

The significance of the correlation shows that the correlations are representative (indicators with significance levels smaller than or equal to 0.05 should be included; (Field, 2013: 1024)).

4.3. Multiple Regression Analysis

The regression analysis is performed by including all indicators without first checking their significance (also known as the forced entry method; see section 3.1.3.). Since each of the hypotheses has more than one independent indicator we chose not to include the scatterplots of relations between the variables in the body. We refer to APPENDIX E and APPENDIX F for the scatterplots of the indicators of the independent variables and dependent variable.

4.3.1. Model summary

The first table shown in the output of the multiple regression analysis is the Model Summary and displays the quality of the selected model. The important results are shown in Table 4.3. The values of R (multiple correlation coefficient between the predictors and the outcome), R^2 (how much the variability in the outcome is accounted for the predictors) and the adjusted R^2 (how well the model can be generalized) determine the quality of this model (Field, 2013: 806). In a hierarchical regression, the improvement of the model is assessed by analyzing the outputs of the in R squared (R^2) change, the F change and the significance (Sig.).

Table 4.3 *Model Summary Multiple Regression Analysis*

Model Summary

Model	R	R Square	Adjusted R Square	Change Statistics			Durbin-Watson
				R Square Change	F Change	Sig. F Change	
1	,450	,202	,195	,202	28,393	,000	
2	,641	,411	,392	,209	15,516	,000	,719

Model 2 shows the influence of all variables and can be compared to Model 1, which only shows the control variables, to obtain the results for the independent variables. The correlation (R) for the combined variables is moderate (.641). The R square of .411 stands for the amount of variance of the trust in the European Parliament for the variables are responsible. Subtracting Model 1 from Model 2 shows that .199 (19%) variance is explained by independent variables. The adjusted R square reflects how well our model can be generalized and ideally it close to the R square (Field, 2013: 1264). An adjusted R Square result (Model 2 minus Model 1) of .197, means that the independent variables explain 19.7% of the variance of the trust in the European Parliament. The fact that the adjusted R square (.197) is so close to the R square (.199) is very positive for our model. R-Squared Change allows the identification of a change in the original R square (.202) based on the linear contribution of variables added into the regression model when those

additional variables are held constant (Field: 2013: 1267). The R square change outputs stayed the same value. F change will be greater than 1 “if the improvement due to fitting the regression model is much greater than the inaccuracy within the model” (Fields, 2013: 1270). For the initial model the F-ratio is 28.393, $p < .001$. For the second model the F-ratio is 15.516, $p < .001$. We can interpret these results as meaning that both models predict the outcome variable (Fields, 2013: 1271),

The significance value of R square is also provided by Table 4.3. The output of our regression analysis is a significance level of .000. Therefore, this model can be considered as significant because its sig value is smaller than 0.05. According to Fields, a result is significant if it is smaller than .001 (Field, 2013: 1266).

4.3.2. Coefficients

Table 4.4 shows the next table of the regression analysis output and includes the coefficients. In this table the actual regression is shown.

Table 4.4 *Multiple Regression Analysis - Coefficients*

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	40,530	8,186		4,951	,000		
	gov-exp	1,135	,211	,338	5,375	,000	,899	1,112
	social-spending	-1,100	,333	-,208	-3,301	,001	,899	1,112
2	(Constant)	55,936	9,967		5,612	**,000**		
	gov-exp	,701	,193	,209	3,636	**,000**	,815	1,228
	social-spending	-1,545	,373	-,292	-4,144	**,000**	,543	1,842
	unemployment-rate	-,102	,339	-,019	-,300	,764	,648	1,542
	net-NP	,244	,103	,376	2,381	**,018**	,108	9,281
	net-NG	,058	,112	,078	,514	,608	,115	8,658
	gdp	,150	,389	,023	,386	,700	,765	1,308
	HICP	1,446	,798	,103	1,811	,071	,835	1,197

The second model includes the independent variables and the control variables. The unstandardized *B* shows the regression coefficients for the constant term per indicator of the independent variable related dependent variable. For instance, for every unit that the government expenditure rises, the trust in the EP increases 0.7%. The significance numbers show that net trust in the National Parliament (.018), Government expenditure (.000) and Social Spending (.000) are significant (<0.05) (Field, 2013: 1284). The

Beta coefficient (*B)* shows the direction of the relation. The *B* coefficients are standardized in the *Beta* that measures the relative importance of the predictor model. The standard deviation for the *Beta* represents the change of the outcome per one standard deviation change in the predictor.

4.4. Assumption Multiple Regression Analysis

For a full overview and discussions of the APPENDIX H. Going through the assumptions for the Multiple Regression Analysis teaches us that the assumption for multicollinearity and the Durbin-Watson statistic are not met. The existence for multicollinearity on trust in the National Government and trust in the National Parliament forced us to take action by excluding one of the indicator from the study. We chose to eliminate the first of the two: trust in the National Government. The result of the Durbin-Watson statistic (.791) is too high for generalization of the outcome of the Multiple Regression Model to a wider population. We therefore proceed by using a Multilevel Linear Regression Model as recommended by Fields (Fields, 2013: 718).

4.5. Multilevel Linear Regression Analysis

The advantage of the Multilevel Linear Regression Model over the Multiple Regression Model is that it does not require the Durbin-Watson assumption to be met. A Multilevel Linear Regression Model is especially suited for data with a hierarchical or multilevel structure, meaning that some variables are clustered or nested in other variables (Field, 2013: 2864). This applies to our research where the dependent, independent and control variables are nested in the variable countries which variables are measured over time. This classifies as two levels: time (1) nested in countries (2) (Field, 2013: 2870 and 2940).

The existence of hierarchical data is problematic because there can be dependency between cases, meaning that the residuals show correlation while most statistical models assume independence for each error (Field, 2013: 2871). Our results on the Durbin-Watson statistics (see Section C of APPENDIX H) already implies that we need to control for the dependency between the cases.

In a Multilevel Linear Regression Model we are interested mostly in the averages and the variances over the units, both for level one and for level two (Verboon, 2012: 5). The regression coefficients and intercepts can be different for every country, while they can also vary for each variable on this level (Verboon, 2012: 5). The dependent and independent variables are different for both the countries per year and also the error can be different for every year, while it is expected that the error on average over all years is zero. When conducting hierarchical models, we work up from a very simple model to more

complicated models (Fields, 2013: 2883). The overall fit of a Multilevel Linear Regression Model is tested using a chi-square likelihood ratio test which is reported by SPSS as the log-likelihood, -2*LL*. The smaller the value of -2*LL,* the better (Field, 2013: 2901).

In the next sections we will start with (1) a Fixed Intercept Only Model that will be our baseline model from which we will advance to more complex models. The results of the more complex model are then compared to the previous model (via the -2*LL*) to see if the new model is better than the previous one. After setting a base-line model we will proceed with (2) a simple model in which a random intercept (countries) only is used. Next (3) a random intercept plus fixed effects for the predictors is applied. The output of all the tests is included in APPENDIX J to APPENDIX L.

4.5.1. Fixed Intercept Only (baseline) Model

As a point of departure we will use a fixed intercept model for which the results are included in APPENDIX J. The output shows a high -2*LL* of 2094.20 representing the unexplained results in the model. In addition, an intercept with an estimate of 19.88 and a significance of 0.00 shows great distance from 0 with high significance. 95% of the population lies in between 16.94 and 22.83, while the covariance parameters show a high error term of 514.74 which is significant (0.00). Overall this implies our model has much room for improvement.

4.5.2. Random Intercept Only Model

The main purpose of the initial model with only a random Intercept is to find the variance between the countries. There are 11 entries per country (for every year one) which will be included as a country variable. The intercept is calculated by using a model with two parameters: one for the intercept and one for the error. Table 4.5 shows the estimated fix intercept, meaning that every case has the same individual error (see APPENDIX K for full results).

Table 4.5 *Random Intercept Only Model – Fixed Effects*

Estimates of Fixed Effects

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	19,883117	3,372652	20	5,895	,000	12,847889	26,918345

The results show that the estimate of 19.88 is significantly higher than 0 while the 95% confidence interval increased to [12.85; 26.91]. The variations of the countries intercept and the residue are estimated at 210.37 respectively 313.52 as shown in Table 4.6.

Table 4.6 *Random Intercept Only Model – Covariance Parameters*

Estimates of Covariance Parameters

Parameter		Estimate	Std. Error	Wald Z	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Residual		313,51602	30,596030	10,247	,000	258,93513	379,60201
Intercept [subject = country]	Variance	210,36891	75,588635	2,783	,005	104,02371	425,43259

To find out how dependent our cases are we need to estimate their dependence by calculating the Intra Class Coefficient (ICC). The ICC represents the proportion of the total variability in the outcome that is attributable to the class (Field, 2013: 2873 – 2874), which in our case is the country. Our ICC: p=210.37/(210.37+313.52)=.40 This means that 40% of the variance in trust in the European parliament is due to country-level factors.

The output also shows that the -2*LL* is 2022.68 on a degree of freedom (d*f*) of 3 as shown in *Information Criteria* in APPENDIX K. This model can be compared to the base-model by calculating the X^2_{Change} = 2094.20 - 2022.68 = 71.52 and the dF_{Change} = 3 – 2= 1. This result is a significant improvement compared to the previous test (Field, 2013: 3112).

4.5.3. Random Intercept, Fixed Predictors

Up to now the model only included the dependent variable trust in the European Parliament and the level 2 countries variable. The next step is to insert the other (independent and control) variables to see how these variables affect the result. We start by assuming that the effect of the independent and control variables is the same for every country by adding these variables as fixed variables. So besides random country intercept we are not including random effects. The full output of this test is included in APPENDIX L.

The -2*LL* is 1625.63 for a total of 19 levels. The X^2_{Change} = 2022.68 – 1625.63 = 397.05 and the dF_{Change} = 19 – 3= 16. According to Fields' chi-square table this is significant (Fields, 2013: 3112) and this model is an improvement compared to the previous model. The ICC can be calculated by taking the σ_α^2 and σ_ε^2 shown in Table 4.7. The ICC for this model is p=406.21/(406.21+62.26)=.87

Table 4.7 *Random Intercept, Fixed Predictors Model – Covariance Parameters*

Estimates of Covariance Parameters

Parameter		Estimate	Std. Error	Wald Z	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Residual		62,257845	6,532948	9,530	,000	50,684402	76,474007
Intercept [subject = country]	Variance	406,21108	159,78780	2,542	,011	187,89787	878,17623

Our new model is not only better suited (according to the chi-square) but this model also reveals that that 87% of the residuals in this model is explained by the country effects. We will therefore stick to this model and proceed with the assumptions before discussing the results of the model.

4.6. Assumptions for the Multilevel Linear Regression

For a full overview and discussions of the APPENDIX I. Besides for the Durbin-Watson Statistic, multilevel regressions share the assumptions used by the multiple regression which are discussed in Section 4.4 and APPENDIX H (Fields, 2013: 2908). In addition to these assumption, Multilevel Linear Regression Models that relate to random coefficients require the coefficients to be distributed around the overall model. This assumption is met and is discussed in more detail Section C of APPENDIX I.

4.7. Conclusion Multilevel Linear Regression Analysis

We've established via the -2*LL* of 1625.63 on a total of 19 levels that the X^2_{Change} = 2022.68 – 1625.63 = 397.05 and the dF_{Change} = 19 – 3= 16 compared to the other Random Intercept Only Model. According to Fields' chi-square table this is significant (Fields, 2013: 3112) and this model is a significant improvement compared to the previous model. The ICC for this model is *p*=406.21/(406.21+62.26)=.87 which indicates that 87% of the residuals is explained by the difference between countries.

The Type III Test of Fixed Effects in Table 4.8 shows the individual effects for the predictors. This tells us that the Year, F(10, 186.65) = 18.17, $p < .001$, trust in the National Parliament, F(1,209.88) = 77.06, $p < .001$, Unemployment Rate, F(1, 8.71), $p < .005$, Government Expenditure, F(1,183.35) = 4.7, $p < .05$, and Inflation (HICP), F(1, 187.78) = 5.14, $p < .05$, significant predicted trust in the European Parliament. The other predictors did not show sufficient significance to predict trust in the European Parliament.

The conclusions that can be drawn from these results of the MLRA, the answers to the sub questions drawn up in chapter 1 and the reflection on this study will be discussed in the next chapter.

Table 4.8 *Multilevel Linear Regression Analysis – Type III Tests for Fixed Effects*

Type III Tests of Fixed Effects

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	99,801	,618	,434
Year	10	186,650	18,170	,000
netNP	1	209,880	77,063	,000
gdp	1	191,298	,000	,989
unemploymentrate	1	206,594	8,714	,004
socialspending	1	120,223	2,212	,140
govexp	1	183,354	4,704	,031
HICP	1	187,778	5,137	,025

The Estimates of Fixed Effects shown in Table 4.9 displays the same thing but also provides us with the regression coefficients and their confidence intervals (Fields, 2013: 2969). In addition, for easy reference, we added the years as dummies and selected year 11 as an index year to compare with. The direction of these coefficients tells us whether the relationship between each predictor and trust in the European Union is positive or negative.

Table 4.9 *Multilevel Linear Regression Analysis – Estimates of Fixed Effects*

Estimates of Fixed Effects

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	2,197915	14,501165	101,074	,152	,880	-26,56824	30,964072
[Year=1]	22,440393	3,072485	197,228	7,304	,000	16,381252	28,499534
[Year=2]	10,347989	2,982113	198,904	3,470	,001	4,467374	16,228605
[Year=3]	15,321839	3,048298	199,169	5,026	,000	9,310760	21,332919
[Year=4]	18,442597	3,129283	201,770	5,894	,000	12,272306	24,612888
[Year=5]	8,695567	3,477750	196,095	2,500	,013	1,836972	15,554161
[Year=6]	16,095493	3,302078	183,134	4,874	,000	9,580485	22,610501
[Year=7]	10,031465	2,677985	182,589	3,746	,000	4,747690	15,315240
[Year=8]	-3,249094	2,889082	184,454	-1,125	,262	-8,948988	2,450801
[Year=9]	,915887	2,933752	186,090	,312	,755	-4,871800	6,703575
[Year=10]	-2,261535	2,609293	184,126	-,867	,387	-7,409491	2,886420
[Year=11]	0[b]	0	.	.	.	.	.
netNP	,414355	,047201	209,880	8,779	,000	,321306	,507403
gdp	-,004408	,316760	191,298	-,014	,989	-,629198	,620383
unemploymentrate	-,878069	,297457	206,594	-2,952	,004	-1,464509	-,291628
socialspending	,874775	,588214	120,223	1,487	,140	-,289826	2,039377
govexp	,204073	,094088	183,354	2,169	,031	,018439	,389707
HICP	1,279567	,564564	187,778	2,266	,025	,165864	2,393270

b. This parameter is set to zero because it is redundant.

The Estimates of Fixed Effects shows that there is a positive relationship between the years 2004 up to and including 2010 between the year and the trust in the European Union which is also significant (all show $p < .05$). In the year 2011 and 2013 there seems to be a negative relation but these results are not significant.

More importantly the results in Table 4.9 show that trust in the National Parliament is positively related to trust in the European Parliament with a high significance. The same applies to government expenditure and HICP which also show a positive relationship and high significance. This means that higher government expenditure or higher the inflation have a positive effect on trust in the European Parliament.

Unemployment rate on the other hand shows a negative correlation with trust in the European Parliament, also with a high significance ($p < .05$). This means that a higher unemployment rate results in

less trust in the European Parliament. The other predictors show insufficient significance to safely predict trust in the European Parliament.

5. CONCLUSION

This chapter discusses the conclusion of this study, the answer to our research questions, recommendations, reflection and external validity.

5.1. Introduction

In this research the importance of trust and the consequences of its decline are discussed. Based on the literature on the topic, two possible causes of the decline in trust were selected to investigate as roots of trust in the European Parliament: the economic performance and the decline in trust in the national government and national parliament. These two hypotheses were quantitatively analyzed to verify these hypotheses. This chapter describes the conclusions drawn from these results.

5.2. Central research question and sub questions

The research question investigated in this study is:

> Can changes in trust in the national government and parliament or economic performance of a member state explain the decline in trust in the European Parliament?

The sub question investigated in this study are:

1. How can trust in public institutions be defined?
2. What are the main causes of (dis)trust in public institutions?
3. How did the economic performance of the EU Members States develop over the past 11 years?
4. What is the impact of the development of economic performance on trust in the European Parliament?
5. How did trust in the National Governments and National Parliaments develop over the past 11 years?
6. What is the impact of the development of trust in National Governments and Parliaments on trust in the European Parliament?

5.3. Answers to sub questions

Answering the sub questions will help us to provide a more elaborate answer to the central research question.

1. How can trust in public institutions be defined?

As elaborated on in section 2.3 of this study, despite being a favorable research field, researches so far have not succeeded in finding a common definition for the term trust. The lack of a common definition has resulted in a large number of researches using the term trust and the appearance of many different concepts for the term (Bannister and Connolly, 2011: 138-139). For practical purposes and unnecessary to reinvent the wheel this research makes use of the definition conceptualized by Kim and Choi as *"a qualified belief or attitude that is held by the public, is influenced by positive future expectations, and is based on experience and perception which are affected by functional, ethical, and institutional characteristics of the government within some specific contexts. This definition encompasses a variety of important features of public trust in government: individual expectations; interpersonal relationships; institutional image; social structures; and ethical principles"* (Kim and Choi, 2012: 4).

2. What are the main causes of (dis)trust in public institutions?

There is no straight answer to this question. According to the literature review, it appears that many explanations exist for the decline in the level of trust in public institutions (Newton and Norris, 1999; Pharr and Putnam, 2000; Dalton, 2004; Bovens and Wille, 2008). In fact, the literature on the topic indicates that "declining trust in government is a complex phenomenon with multiple potential causes" (Chanley, Rudolph and Rahn, 2000: 240). The theoretical debate has concentrated on the influence of economic changes, the modernization process and a generalization tendency of distrust (Dalton, 2005: 6).

3. How did the economic performance of the EU Members States develop over the past 11 years?

The member states of the European Union faced difficult economic times in the past decade. The global financial breakdown in 2007–2008 reveled unsustainable deficits and large public debts. The consequences of the crisis were felt strongly in some countries such as Greece, Ireland, Portugal, Spain and Italy. Although the economic issues faced by these countries originated from different reasons (e.g. Ireland's bank crisis from 2008 led to housing collapse while Portugal's foreign debt-financed deficit is considered a cause for its financial difficulties) the consequences of the negative economic performance caused worries for the all European Union.

This interdependence of the effects is noticeable when analyzing the economic indicators. For instance, GDP was stable from 2004 until 2007. All member states presented a decline in GDP during 2007 until 2009 and on average the member states' GDP after this period recovered. It is natural to think that some countries faced bigger challenges than other. After 2008, unemployment rates rose in the European member states and so far some countries still do not seem to indicate any type of recovery (e.g. Spain and Greece). Inflation in the EU's member states during this past decade has also shown changes in most countries. This indicator shows variation after 2007 and reduces after 2009, while from 2012 it shows even smaller records than in the beginning of the decade. Overall we can say that the European Union has faced two severe crises (debt crisis and financial crisis) but some countries got hit harder than other (European Commission, 2015).

4. What is the impact of the development of economic performance on trust in the European Parliament?

Our study tested three macroeconomic indicators: GDP, unemployment and inflation (HICP) against trust in the European Union. According to the results of the MLRA, two indicators out of these three proved to have a significant coincides with trust in the European Parliament. The GDP predictor showed insufficient significance to be included in the results. Inflation (HICP) appeared positively related to trust in the European Parliament while Unemployment Rate appeared negatively related to trust in the European Union. This means that higher inflation coincides with higher trust in the EU while higher unemployment rate coincides with less trust in the European Union.

5. How did trust in the National Governments and National Parliaments develop over the past 11 years?

Trust in the national parliament and trust in the national government seem to fluctuate in member states but for almost every member state they seem to appear only to fluctuate within boundaries. These boundaries are however different between member states. In other words, when a country shows negative trust levels in its national parliament or national government, it varies between the strong negative and slightly positive lines. Most countries do not go from negative levels of trust to positive. However, some countries stand out because the level of trust in the national parliament varied greatly, such as Cyprus, Malta, Spain, Portugal and Hungary. Trust in the national government showed greater negative variation, such as Cyprus, Greece and Spain. It is worth to mention that some countries can be classified as extremely negative when compared to the other member states such as Latvia and Poland.

Looking at the European Union Member States' average trust levels in the National Parliament and National Government we see that trust in the National Parliament declined over the past 11 years but the last year, while trust in the National Government slightly increased in the past 5 years.

6. What is the impact of the development of trust in national Governments and Parliaments on trust in the European Parliament?

Due to the multicollinearity of the two indicators used in this hypothesis, only trust in the National Parliament was tested in the MLRA. The outputs of the MLRA show that trust in the European Parliament coincides positively with trust in the National Parliament with a high significance.

5.4. Conclusion to Central Research Question

The central research question is: Can changes in trust in the National Governments and Parliaments or economic performance of a member state explain the decline in trust in the European Parliament?

The results of a MLRA show that trust in the European Parliament is influenced by trust in the National Parliament, Unemployment Rate and Inflation. The MLRA also showed that the differences between the countries play a great role. In fact, differences between the countries are responsible for over 80% of the residuals. In other words, the internal characteristics of the countries greatly determine the pieces in the trust in the European Parliament puzzle. Furthermore, it appeared that one of the control variables in this study, government expenditure, has significant influence on trust in the European Parliament.

Neither hypotheses tested in this research proved to be correct. Economic performance proved to be significant in two indicators: Unemployment and Inflation, but not for GDP. The MLRA showed that a higher Inflation results explains more trust in the European Parliament but we were unable to prove the opposite (less inflation results in less trust). We did prove that a higher Unemployment Rate relates to less trust in the European Union. Since higher unemployment can be considered as 'less economic performance' we could say our first hypothesis is partially proven. For sure we can say that the null-hypothesis is not proven either. As regards the second hypothesis we proved that higher trust in the National Parliament results in higher trust in the National Parliament (positive correlation). We couldn't verify both variables at the same time because they appeared to be explaining pretty much the same effect. Though we have shown that there is a relationship between trust in the National Parliament and Trust in the European Parliament, we have not proven our hypothesis or our null-hypothesis. The

hypothesis predicted that less trust in the National Parliament results in less trust in the European Union but we couldn't very that.

5.5. Recommendations

The outcome of this research exposed the complexity of the source of trust in the European parliament. The hypotheses, designed based on previous studies, could only be partially confirmed by this study. This leads to the conclusion that more research in the topic should be performed. New researchers should invest their efforts in a deeper line where individual characteristics within the member states could be included in their studies. The results of the MLRA show that most of the differences in trust in the European Parliament can be explained by difference between countries.

The investigation of the source of the trust in the European Parliament should be seriously pursued to find the proper reaction to revert the currently negative scenario of trust levels in the European Parliament. Trust in the only direct elected body of the European Union is a very important item in a democratic system, such as the European Union.

5.6. Reflection & External Validity

It is important in a study to reserve space to recognize limitations of the research performed and the external validity of conclusions drawn from the investigated data. Mostly this study has faced difficulties when dealing with some missing and not updated data. It was necessary in the research to exclude some countries (Bulgaria, Croatia, Cyprus, Latvia, Lithuania, Romania and Malta) from the main sample (all countries which are a members of the European Union). Some of these countries were excluded due to time issues (they were not part of the European Union before of 2007) and others due to missing data in the Eurobarometer or missing data in Eurostat relating to the chosen indicators. This action resulted in less cases to be studied. From 28 countries the sample was reduced to 21, which of course could lead to compromise the external validity of the results of this research. Taken into account that 21 countries of the 28 available countries have been included and no significant correlation is found supporting the hypotheses, it is expected that if the other 7 countries were included no significant changes would occur.

Additionally, a MLRA was run to respond of the violation of the Durbin-Watson Statistic assumption. After trust in the National Government was removed from the independent variables to overcome the problem of multicollinearity with trust in the National Parliament, all assumptions for the MLRA were met. Therefore, the results of this research can be considered as valid and reliable.

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APPENDIX A LIST OF EU MEMBER STATES

Country	Year	Sufficient data
Austria	1995	YES
Belgium	1958	YES
Bulgaria	2007	YES
Croatia	2013	
Cyprus	2004	NO
Czech Republic	2004	YES
Denmark	1973	YES
Estonia	2004	YES
Finland	1995	YES
France	1958	YES
Germany	1958	YES
Greece	1981	YES
Hungary	2004	YES
Ireland	1973	YES
Italy	1958	YES
Latvia	2004	YES
Lithuania	2004	NO
Luxembourg	1958	NO
Malta	2004	NO
Netherlands	1958	YES
Poland	2004	YES
Portugal	1986	YES
Romania	2007	
Slovakia	2004	YES
Slovenia	2004	YES
Spain	1986	YES
Sweden	1995	YES
United Kingdom	1973	YES

Official Website European Union (Europe.eu)
Total number of member states of the EU per January 1, 2015: 28
Total number of member states of the EU in sample (marked with green): 25
Total number of member states for which sufficient data is available after exclusion: 21.

APPENDIX B DESCRIPTION OF VARIABLES

Indicator's name	Indicator's code	Description	Level of measurement	Database	Source
Net Trust European Parliament	net-EP	Expressed on a scale from 0 to 100. Measured by subtracting the percentage of respondents that do not trust from the percentage that do trust the European Parliament.	Ratio	Eurobarometer	http://ec.europa.eu/public_opinion /cf/index.cfm?lang=en
Net Trust National Parliament	net-NP	Expressed on a scale from 0 to 100. Measured by subtracting the percentage of respondents that do not trust from the percentage that do trust the national Parliament.	Ratio	Eurobarometer	http://ec.europa.eu/public_opinion /cf/index.cfm?lang=en
Net Trust National Government	net-NG	Expressed on a scale from 0 to 100.Measured by subtracting the percentage of respondents that do not trust from the percentage that do trust the local government.	Ratio	Eurobarometer	http://ec.europa.eu/public_opinion /cf/index.cfm?lang=en
Inflation (HICP)	HICP	Harmonized Index of Consumer Prices (HICP). Expressed on a scale from 0 to 100.	Ratio	Eurostat	http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tec00118&plugin=1
GDP	gdp	Gross Domestic Product (GDP) expressed in percentage increase compared to the previous year.	Ratio	Eurostat	http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tec00115&plugin=1
Unemployment	unemployment-rate	Member States´ number of unemployed persons as a percentage of the Member States´ labor force in the respective year based on International Labour Office (ILO) definition.	Ratio	Eurostat	http://ec.europa.eu/eurostat/tgm/ table.do?tab=table&init=1&language= en&pcode=tipsun20&plugin=1
Social Spending	social-spending	Total expenditure on social protection by type in the respective year; percentage of total expenditure. Expenditure on social protection	Ratio	Eurostat	http://ec.europa.eu/eurostat/tgm/

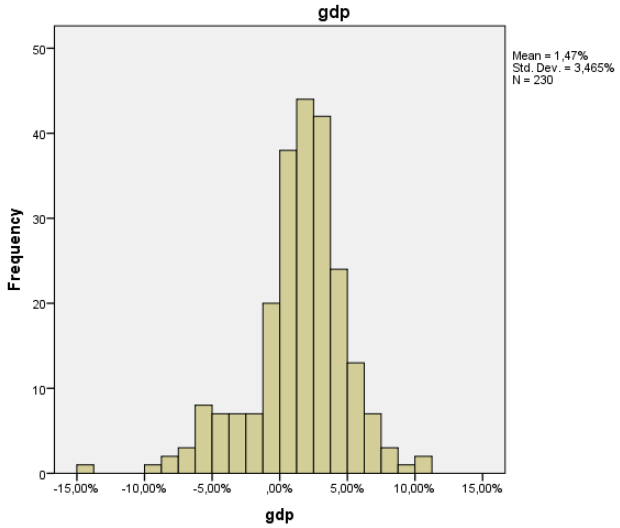
		contains social benefits, which consist of transfers, in cash or in kind, to households and individuals to relieve them of the burden of a defined set of risks or needs.			table.do?tab=table&init=1&language=en&pcode=tps00101&plugin=1
Government Expenditure	gov-exp	Government expenditure according to World Bank, expressed in percentage of GDP.	Ratio	Eurostat	http://databank.worldbank.org/data//reports.aspx?source=2&country=&series=NE.CON.GOVT.ZS&period=

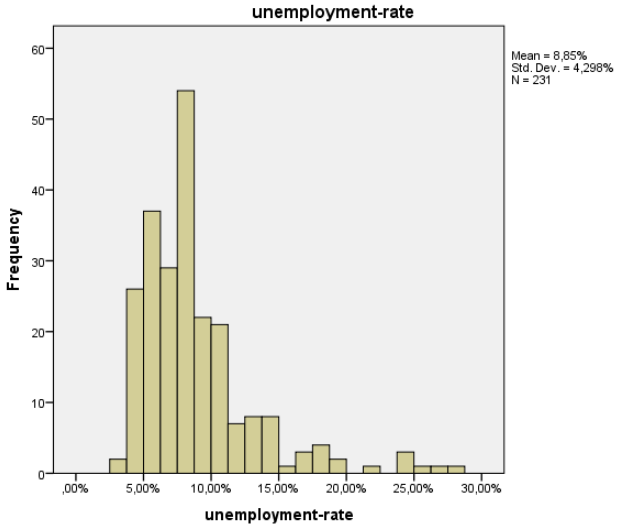
APPENDIX C SAMPLE DATA

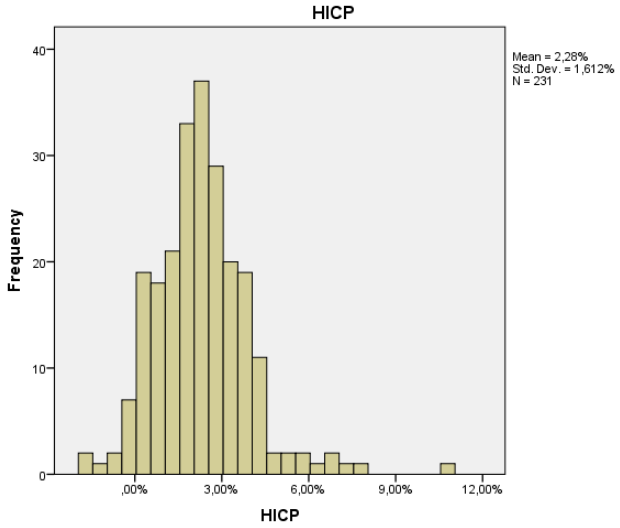
COUNTRY	YEAR	NET-EP	NET-NP	NET-NG	GDP	UNEMPL. RATE	SOCSPEND	GOV. EXP.	HICP
1	1	47,00%	-3,00%	-19,00%	3,40%	8,40%	17,00%	2,00%	1,90%
1	2	28,00%	1,00%	-7,00%	1,90%	8,50%	16,40%	9,65%	2,50%
1	3	38,00%	14,00%	4,00%	2,60%	8,30%	16,30%	-1,41%	2,30%
1	4	42,00%	1,00%	-10,00%	3,00%	7,50%	16,30%	5,17%	1,80%
1	5	34,00%	-18,00%	-27,00%	1,00%	7,00%	17,50%	6,93%	4,50%
1	6	30,00%	-20,00%	-25,00%	-2,60%	7,90%	17,40%	6,00%	0,00%
1	7	27,00%	-42,00%	-54,00%	2,50%	8,30%	17,20%	2,87%	2,30%
1	8	20,00%	-14,00%	-29,00%	1,60%	7,20%	17,80%	6,02%	3,40%
1	9	21,00%	-16,00%	-22,00%	0,10%	7,60%	18,30%	4,84%	2,60%
1	10	21,00%	-2,00%	-3,00%	0,30%	8,40%	19,00%	1,18%	1,20%
1	11	6,00%	-22,00%	-30,00%	1,10%	8,50%	19,00%	1,55%	0,50%
2	1	31,00%	46,00%	17,00%	2,60%	5,50%	27,70%	3,44%	0,90%
2	2	25,00%	51,00%	19,00%	2,40%	4,80%	27,30%	1,66%	1,70%
2	3	33,00%	47,00%	7,00%	3,80%	3,90%	26,60%	3,05%	1,90%
2	4	49,00%	52,00%	18,00%	0,80%	3,80%	26,00%	2,99%	1,70%
2	5	35,00%	52,00%	22,00%	-0,70%	3,40%	26,20%	5,24%	3,60%
2	6	38,00%	50,00%	17,00%	-5,10%	6,00%	29,70%	7,35%	1,10%
2	7	45,00%	47,00%	2,00%	1,60%	7,50%	29,90%	5,39%	2,20%
2	8	30,00%	30,00%	-13,00%	1,20%	7,60%	30,10%	1,50%	2,70%
2	9	41,00%	28,00%	-14,00%	-0,70%	7,50%	30,20%	5,44%	2,40%
2	10	29,00%	18,00%	-17,00%	-0,50%	7,00%	30,20%	-2,11%	0,50%
2	11	28,00%	27,00%	5,00%	1,10%	6,60%	30,10%	1,57%	0,30%

Years (1 being 2004 and 11 being 2014) and country names have been changed to numbers to comply with SPSS input parameters.

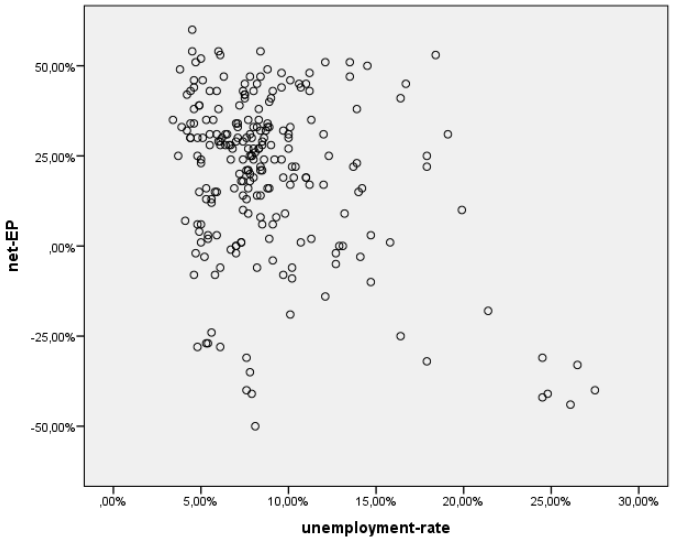
APPENDIX D DESCRIPTIVE STATISTICS ECONOMIC PERFORMANCE

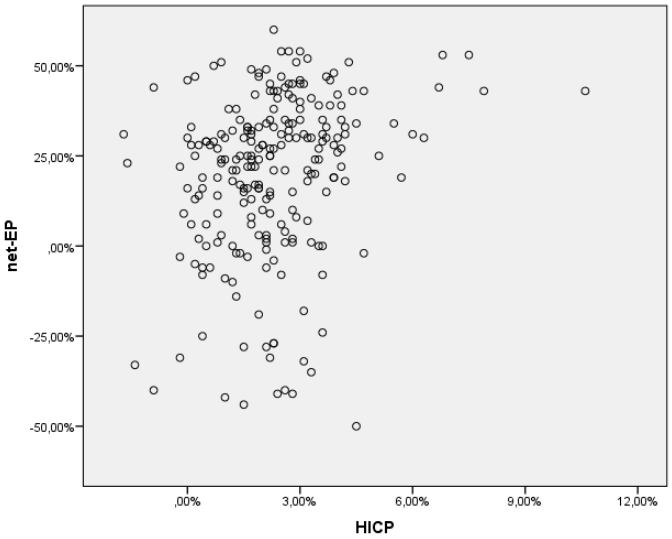


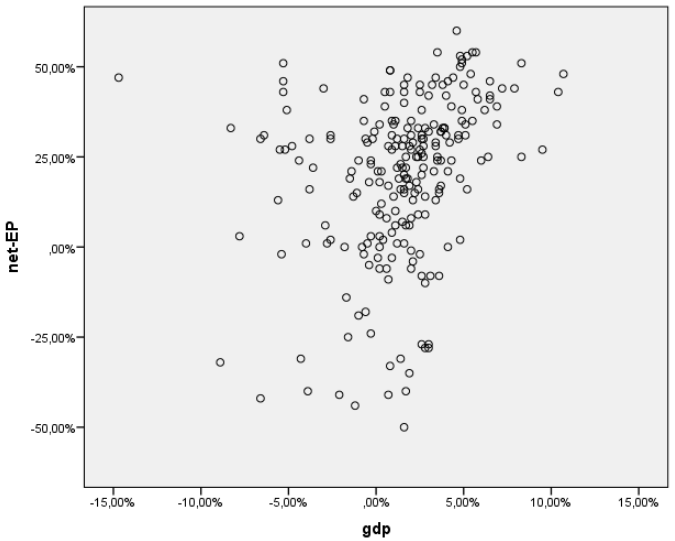




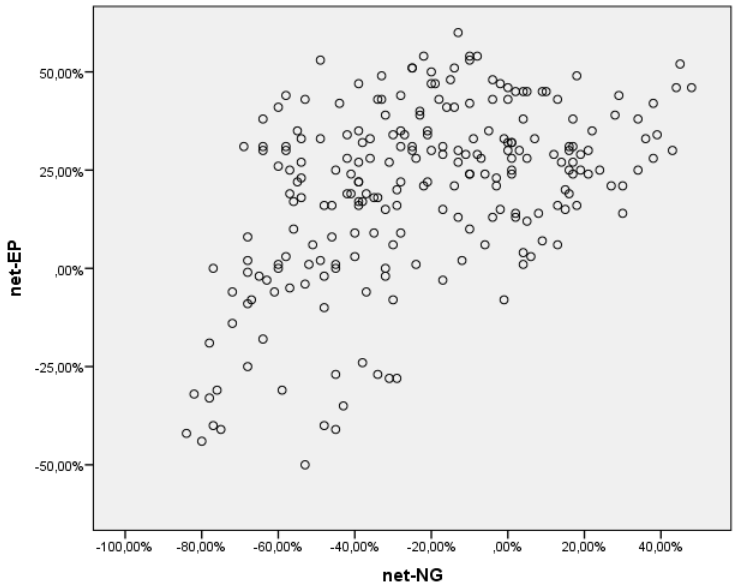
APPENDIX E SCATTERPLOTS ECONOMIC PERFORMANCE

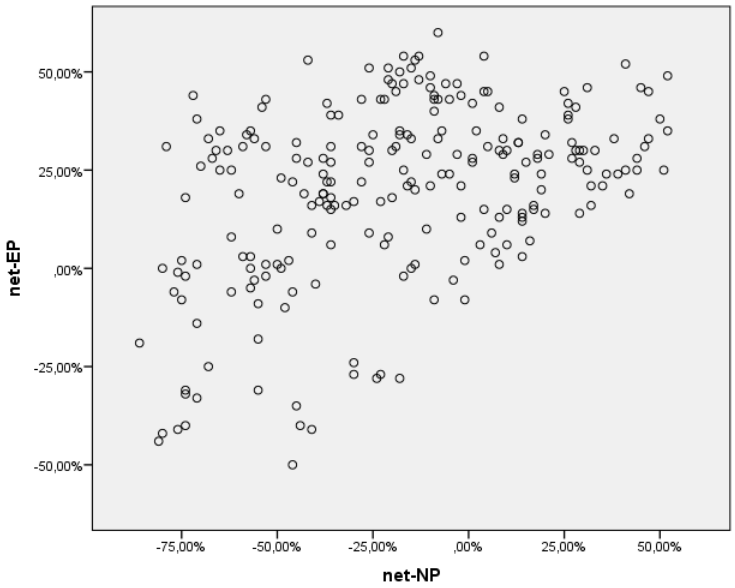




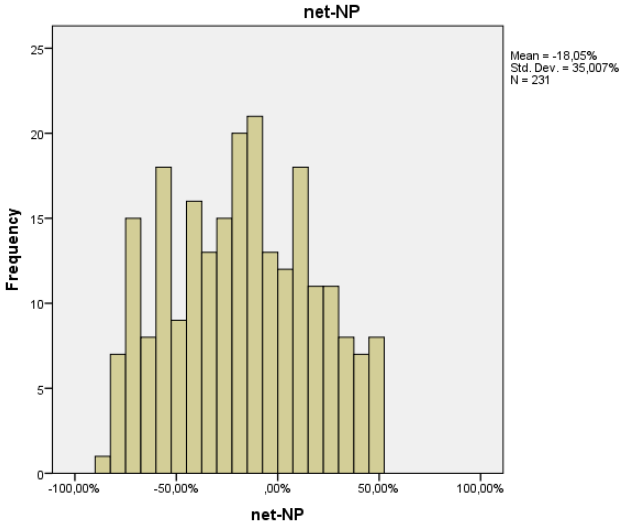


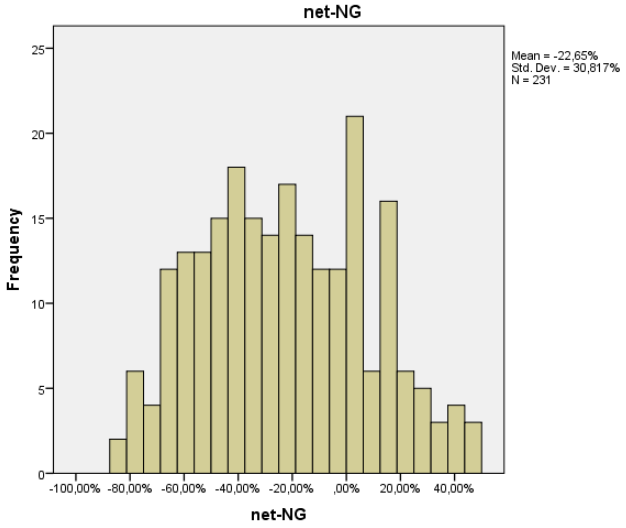
APPENDIX F SCATTERPLOTS TRUST NATIONAL GOVERNMENT AND PARLIAMENT

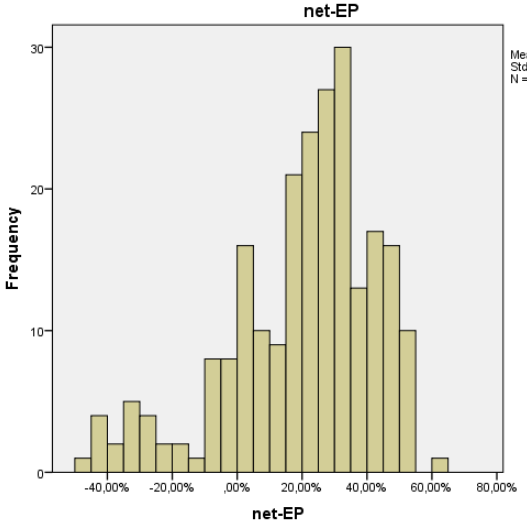




APPENDIX G DESCRIPTIVE STATISTICS TRUST VARIABLES







APPENDIX H ASSUMPTIONS MULTIPLE LINEAR REGRESSION ANALYSIS

A. Multicollinearity Check

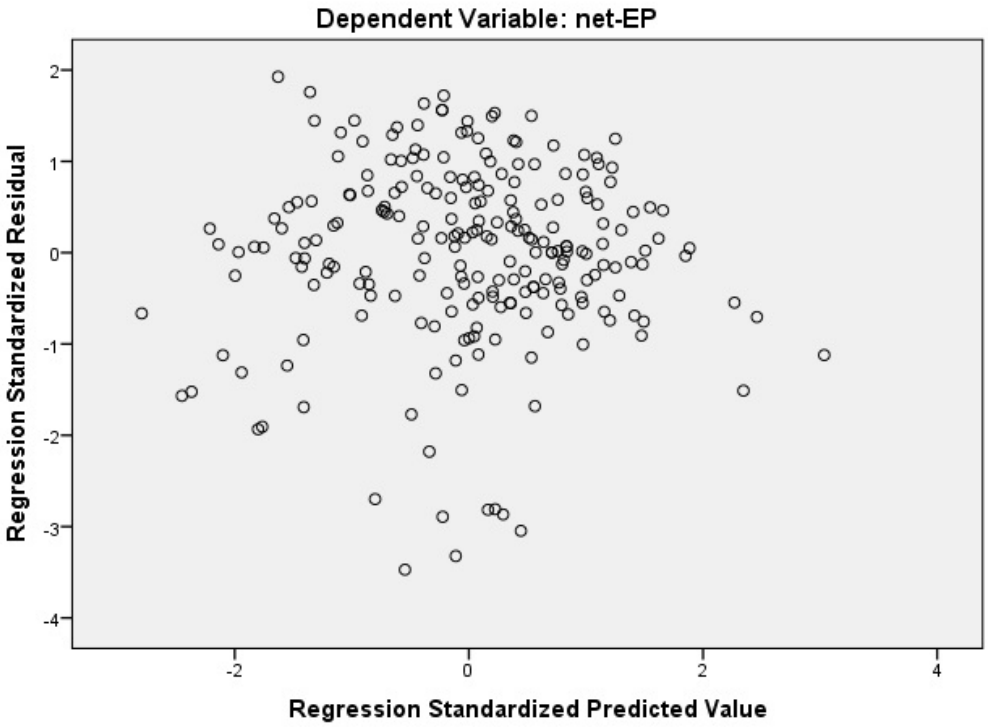
The assumption of no multicollinearity means that there are no indicator that measure (approximately) the same. Absence of multicollinearity can be tested through two methods: determine the bivariate correlation coefficient for every two of the independent variables (correlation should not be higher or equal to 0.9; De Vocht, 2007, p. 199) or check the Variance Inflation Factor (VIF) for a tolerance of less than 0.20 or 0.10 and a VIF of 5 or 10 and higher (O'Brien, 2007: 673).

Table 4.4 displays that trust in the National Government (8.658) trust in the National Parliament (9.281) are highly correlated, indicating a multicollinearity problem. This does not reduce the predictive power or reliability of the model as a whole, but it does affect calculations regarding these two individual predictors. More specifically, the outcomes of these two independent variables might not give valid results about which predictors are redundant with respect to others. The indicators trust in the National Government and trust in the National Parliament are both included in the second hypothesis. This means that if we study the relationship between the stronger indicator of the two and trust in the European Parliament, we have sufficiently verified the hypothesis. To overcome the multicollinearity problem encountered we will therefore exclude trust in the National Government from our analysis.

B. Linearity

The Linearity assumption can be validated by looking at the scatterplot of the residuals included in Figure H.1. If the scatterplot of residuals does not show a pattern the regression model is considered linear (Field, 2013: 768). The scatterplot shows that the residuals are balanced way around the reference line which confirms that absence of a clear pattern amongst the residuals. Therefore, the linearity assumption is met.

Figure H.1 *Multiple Regression Analysis – Scatterplot Residuals*



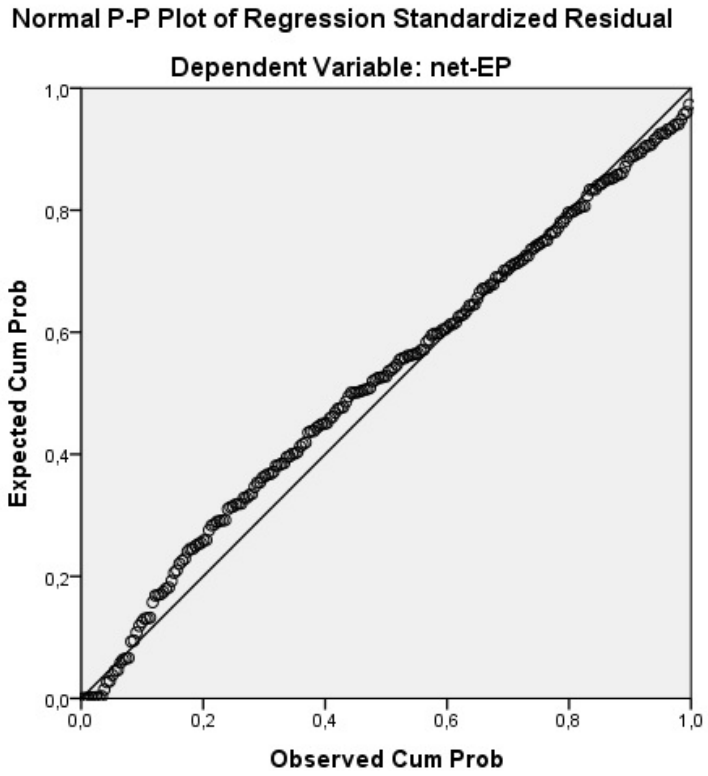
C. Durbin-Watson Statistic

The Durbin-Watson statistic shows serial correlation among the residuals. The residuals are not correlated if the Durbin-Watson indicator is around 2. A Durbin-Watson result of .720 (see Table 4.3) is evidence of positive serial correlation. When the Durbin-Watson outcome is far lower or higher than 2, the independence of the cases is violated and our confidence intervals and significance tests might be invalid. In general, if the Durbin-Watson assumption is violated we should apply a MLRA (Fields, 2013: 718). The Multilevel Linear Regression Model is discussed in Section 4.5.

D. Normal Distribution Residuals

In a multiple regression analysis the residuals should be approximately normally distributed. Residuals are the difference between what the model predicts and the observed data (Field, 2013: 1131). The normal distribution for the dependent variables is already discussed in Section 4.1, but we have not checked if the residuals, the error for each case of data (Field, 2013: 694), are approximately normally distributed. The P-P plot in Figure H.2 shows the deviations from normality. The residuals are situated around the diagonal line which means there is a normal distributions and this assumption is met.

Figure H.2 *Multiple Regression Analysis – P-P Plot Residuals*



E. Homoscedasticity

The last assumption validates for homoscedasticity. This means that all independent indicators should present continuous variance of the residual terms. Homoscedasticity can verified by looking at the scatterplot in Figure H.1 in which the values of the residuals are plotted against the values of the outcome predicted by our model. Homoscedasticity holds true when no systematic relationship can be found between the errors in the model and what the model predicts (Fields, 2013: 768). The scatterplot shows that the residuals are randomly scattered around 0 (the horizontal line), while we already determined a relatively even distribution (see Section D). Hence, the assumption for homoscedasticity is met.

APPENDIX I ASSUMPTIONS MULTILEVEL LINEAR REGRESSION ANALYSIS

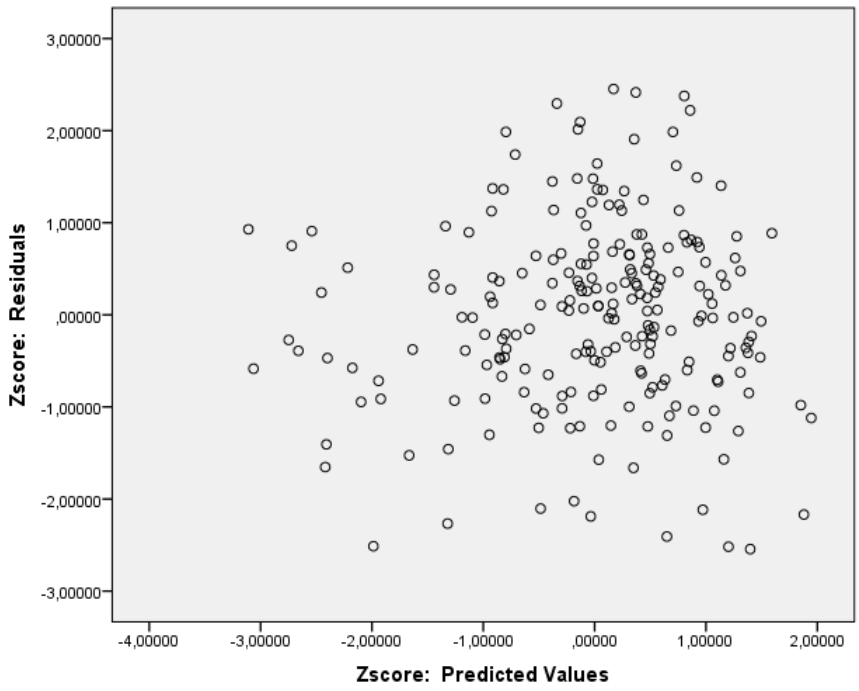
A. Multicollinearity

As mentioned in APPENDIX H there was a multicollinearity problem between the variables trust in the National Government and trust in the National Parliament. Considering that multicollinearity can be a particular problem in multilevel models, we choose only to include the indicator trust in the National Parliament for the reasons described in APPENDIX H.

B. Linearity

As explained in Section 0 the linearity assumption can be validated via the scatterplot of the residuals. If the scatterplot of residuals does not show a pattern the regression model is considered linear (Field, 2013: 768). Figure I.1 shows the scatterplot for our model and it appears that the residuals are balanced way around the reference line which confirms that absence of a clear pattern amongst the residuals. Therefore, the linearity assumption is met.

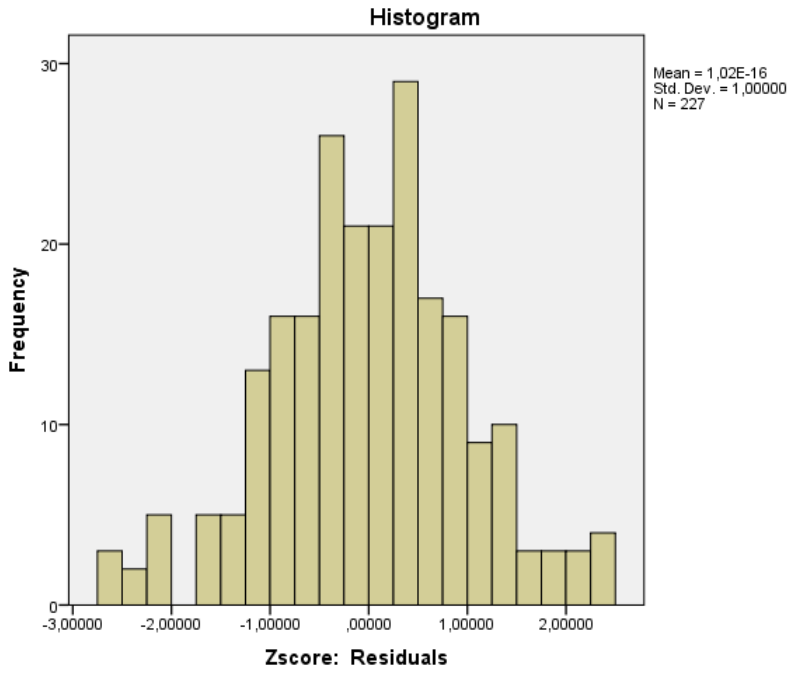
Figure I.1 *Multilevel Linear Regression Model – Scatterplot Residuals*



C. Normal distribution

The assumption of normal distribution is met when the error terms at every level of the model are normally distributed. This can be verified via a normal distribution histogram as shown in Figure I.2. A normal distribution is shown when the histogram displays a normal curve, which is the case.

Figure I.2 *Multilevel Linear Regression Model – Frequency Histogram Residuals*



In addition to the normal distribution histogram, the descriptive statistics of the SPSS output give information about the Skewness and Kurtosis of the normal distribution. These figures (displayed in Table I.1) show that the Skewness and Kurtosis are very close to zero, which indicates that the data is normally distributed (Field, 2013: 738).

Table I.1 *Multilevel Linear Regression Model – Descriptive Residuals*

Descriptives

		Statistic	Std. Error
Zscore: Residuals	Mean	,0000000	,06637233
	Skewness	-,056	,162
	Kurtosis	,117	,322

D. Homoscedasticity

Homoscedasticity means that all independent variables should present continuous variance of the residual terms and can verified by looking at the scatterplot in Figure I.1. The scatterplot shows that the residuals are randomly scattered around 0 (the horizontal line) and that the assumption for homoscedasticity is therefore met (Fields, 2013: 768).

APPENDIX J FIXED INTERCEPT ONLY MODEL

Information Criteria[a]

-2 Restricted Log Likelihood	2094,196
Akaike's Information Criterion (AIC)	2096,196
Hurvich and Tsai's Criterion (AICC)	2096,213
Bozdogan's Criterion (CAIC)	2100,634
Schwarz's Bayesian Criterion (BIC)	2099,634

The information criteria are displayed in smaller-is-better form.

a. Dependent Variable: net-EP.

Estimates of Fixed Effects[a]

						95% Confidence Interval	
Parameter	Estimate	Std. Error	df	t	Sig.	Lower Bound	Upper Bound
Intercept	19,883117	1,492751	230	13,320	,000	16,941903	22,824331

a. Dependent Variable: net-EP.

Estimates of Covariance Parameters[a]

					95% Confidence Interval	
Parameter	Estimate	Std. Error	Wald Z	Sig.	Lower Bound	Upper Bound
Residual	514,73845	47,999608	10,724	,000	428,75743	617,96171

a. Dependent Variable: net-EP.

APPENDIX K RANDOM INTERCEPT ONLY MODEL

Information Criteria[a]

-2 Restricted Log Likelihood	2022,679
Akaike's Information Criterion (AIC)	2026,679
Hurvich and Tsai's Criterion (AICC)	2026,732
Bozdogan's Criterion (CAIC)	2035,555
Schwarz's Bayesian Criterion (BIC)	2033,555

The information criteria are displayed in smaller-is-better form.

a. Dependent Variable: net-EP.

Estimates of Fixed Effects[a]

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	19,883117	3,372652	20	5,895	,000	12,847889	26,918345

a. Dependent Variable: net-EP.

Estimates of Covariance Parameters[a]

Parameter		Estimate	Std. Error	Wald Z	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Residual		313,51602	30,596030	10,247	,000	258,93513	379,60201
Intercept [subject = country]	Variance	210,36891	75,588635	2,783	,005	104,02371	425,43259

a. Dependent Variable: net-EP.

APPENDIX L RANDOM INTERCEPT, FIXED PREDICTORS MODEL

Information Criteria[a]

-2 Restricted Log Likelihood	1625,634
Akaike's Information Criterion (AIC)	1629,634
Hurvich and Tsai's Criterion (AICC)	1629,692
Bozdogan's Criterion (CAIC)	1638,329
Schwarz's Bayesian Criterion (BIC)	1636,329

The information criteria are displayed in smaller-is-better form.

a. Dependent Variable: net-EP.

Type III Tests of Fixed Effects

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	99,801	,618	,434
Year	10	186,650	18,170	,000
netNP	1	209,880	77,063	,000
gdp	1	191,298	,000	,989
unemploymentrate	1	206,594	8,714	,004
socialspending	1	120,223	2,212	,140
govexp	1	183,354	4,704	,031
HICP	1	187,778	5,137	,025

Estimates of Fixed Effects

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	2,197915	14,501165	101,074	,152	,880	-26,56824	30,964072
[Year=1]	22,440393	3,072485	197,228	7,304	,000	16,381252	28,499534
[Year=2]	10,347989	2,982113	198,904	3,470	,001	4,467374	16,228605
[Year=3]	15,321839	3,048298	199,169	5,026	,000	9,310760	21,332919
[Year=4]	18,442597	3,129283	201,770	5,894	,000	12,272306	24,612888
[Year=5]	8,695567	3,477750	196,095	2,500	,013	1,836972	15,554161
[Year=6]	16,095493	3,302078	183,134	4,874	,000	9,580485	22,610501
[Year=7]	10,031465	2,677985	182,589	3,746	,000	4,747690	15,315240
[Year=8]	-3,249094	2,889082	184,454	-1,125	,262	-8,948988	2,450801
[Year=9]	,915887	2,933752	186,090	,312	,755	-4,871800	6,703575
[Year=10]	-2,261535	2,609293	184,126	-,867	,387	-7,409491	2,886420
[Year=11]	0[b]	0	.	.	.	.	.
netNP	,414355	,047201	209,880	8,779	,000	,321306	,507403
gdp	-,004408	,316760	191,298	-,014	,989	-,629198	,620383
unemploymentrate	-,878069	,297457	206,594	-2,952	,004	-1,464509	-,291628
socialspending	,874775	,588214	120,223	1,487	,140	-,289826	2,039377
govexp	,204073	,094088	183,354	2,169	,031	,018439	,389707
HICP	1,279567	,564564	187,778	2,266	,025	,165864	2,393270

b. This parameter is set to zero because it is redundant.

Estimates of Covariance Parameters

Parameter		Estimate	Std. Error	Wald Z	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Residual		62,257845	6,532948	9,530	,000	50,684402	76,474007
Intercept [subject = country]	Variance	406,21108	159,78780	2,542	,011	187,89787	878,17623