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Economic Performance and Political Trust: The impact of the Financial Crisis on European citizens

Master's thesis

Master's thesis in Political Science

Trondheim, spring 2013

NTNU – Trondheim
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Science and Technology

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Forord

Denne masteroppgaven markerer ikke bare slutten på et halvt års hardt arbeid, men også slutten på fem års utdanning, og starten på voksenlivet. Jeg vil dedikere dette arbeidet til pappa fordi hver gang jeg har følt at jeg ikke har vært god nok, har han fortalt meg det motsatte. Jeg setter også stor pris på støtten og motivasjonen jeg har fått fra mamma, Joachim, Mathias, Rikke, og resten av familien.

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IV

Abstract

Trust links ordinary citizens to the institutions that are intended to represent them, and thereby enhancing both the legitimacy and the effectiveness of democratic government (Bianco 1994; Gamson 1968; Braithwaite and Levi 1998; Hetherington 1998). It is therefore an essential part of a democratic system. People have confidence in their leaders when the government is working well, and absence of political confidence could threaten the system's legitimacy. Mistrust by the citizens is often expressed as an unwillingness to follow political outcomes, which prevents progress from happening in the political process (Norris 1999). In this thesis I investigate *whether* economic performance affects political trust, and *if* the 2008 financial crisis has decreased confidence levels due to the severity of its consequences. By using multilevel modeling to analyze data from 25 European countries, I find that economic performance is an important component in levels of trust. I am also able to conclude that the financial crisis has reduced citizen's trust in political institutions in the countries where the crisis has had a severe impact on the economy. As much research emphasizes the importance of individual *perception* of economic performance, this has also been tested for. The results indicate that individual *perception* of the economic situation, influence trust just as much, if not more, than the *actual* economic situation.

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1. Introduction

The bankruptcy of the investment bank, Lehman Brothers, in the fall of 2008 marks the beginning of the financial crisis. Due to increased financial globalization, a crisis that started with a collapse of the U.S. housing market soon spread to the rest of the world, including Europe. The crisis resulted in negative economic growth, high levels of unemployment and weak macroeconomic future prospects. Today a number of European countries are in a troubling economic situation (Krugman 2012).

For years, Europe has been in an economic crisis and the frustration amongst the citizens is rising. As the European countries have responded to the crisis with austerity policies, thousands of people have hit the streets and demonstrated against their governments. Greece is one of the counties that has been affected the worst. In 2010, *the Guardian* wrote: "Athens burns – and crisis strikes at heart of the EU" (Smith 2010), illustrating the frustration and the severity of these demonstrations. Also, *The Economist* wrote on the November 8th that:

> Greece faced massive strikes turned riots yesterday as its government passed a new round of fiscal consolidation, designed to shrink the budget €18.5 billion by 2016. The contents of the austerity plan hardly seems like the stuff to drive Greeks to firebomb riot police; among the measures under debate were a two-year rise in the retirement age and measures to make it easier to fire public employees. One suspects the anger is only slightly about the day's legislation. Rather the tension is probably best explained by the continuing pressure on an imploding Greek economy (The Economist 2012).

The crisis has caused millions of people to lose their jobs, and it has set the world economy back years (Krugman 2009). Economies go through fluctuations in the short run, but often return to normal in the medium run. An adverse shock may lead to a recession, but fairly quickly, the economy turns around and returns to its natural level. Most of the time this is what happens, but once in a while things do not return to normal. Output remains far below its natural level for many years and unemployment remains stubbornly high. Simply put, the economy appears to be stuck, unable to return to normal. The most infamous case is the Great Depression, which affected most of the world from the late 1920's to the start of World War II (Blanchard 2006). Today, the current crisis is often being referred to as the Great Recession and in some places it is so severe that it may even be compared to the Great Depression.

In this thesis I set out to disclose both the relationship between economic performance and political trust, as well as the financial crisis effect on levels of trust. Several studies on how economic performance affects levels of political trust have focused on economic performance

in general. However, several researchers have stressed that economic performance might have a different effect in a crisis, compared to a non-crisis state. My contribution will be to test how an economic crisis, the financial crisis in this case, affects levels of political trust. The goal with my thesis is to add to the field of political trust, by examining how *macroeconomic indicators*, which will be affected by the financial crisis, impacts people's trust in political institutions. The financial crisis has not been felt to the same degree in all European countries, and by using macroeconomic indicators as measures on the economic crisis, I find the effects of the crisis in different economic conditions and economic shocks.

What makes economic performance important to levels of trust? And why are high levels of trust important? People trust governments more if they have shown a capacity to generate economic growth, create jobs, provide access to social services and perform in a transparent manner (Fiorina 1978; Mackuen, Erikson and Stimson 1992). If there is any doubt that the authorities are capable of managing the national economy and respond to the challenges of an economic crisis, it may create mistrust. Because political trust is essential for the stability of democracy and a basic prerequisite for the legitimacy of those entrusted with political power, it is important that levels of trust does not go down (Hardin 1998; Levi 1998). High political trust signals that the institutions function properly and effectively, and helps to keep democracy alive (Listhaug and Ringdal 2008).

While several studies have investigated the nature of, and variation in individuals' political trust (e.g., Dalton 2004; Levi 1998; Miller and Listhaug 1999; Newton 2008; Norris 1999; Uslaner 2002), my interest will mainly be in political trust shared by the population of a given country. As will be discussed later, most of the variation in political trust and attitudes in general, is between individuals. This makes it important to control for measures that may affect levels of trust individually. To avoid making wrongful conclusions, I therefore include as many relevant individual variables as possible.

The data used are from European Social Survey for 2004, 2006, 2008 and 2010. Between the collection of the 2008 and 2010 rounds,[1] the financial crisis had made a global impact, which makes the, 2010 data of ESS is advantageous. It should however, be mentioned that much previous research find that political trust has been decreasing for some time (Dalton 2004; Obrestad 2009). Round 2004 and 2006 is included to reduce the possibility that the evidence found in this analysis only is a continuation or exacerbation of an earlier trend. The method employed is a multilevel regression analysis with three levels; individual, country-year,

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[1] As can bee seen in Appendix A, Table 1, the 2008 data was collected at the end of 2008 and in 2009 for most

and country. To measure economic performance the indicators used are GDP growth rate, GDP per capita, Unemployment rate, and gross debt in percent of GDP.

Figure 1: Theoretical model of the expected causal relationship

The figure above illustrates the expected causal relationship. I assume that as a consequence of the financial crisis, the macroeconomic measures will have changed in negative direction, which again will lower citizen's trust in political institutions. The financial crisis is viewed as a natural experiment in which September 15th 2008, and the following repercussions, represents a shock in the equilibrium of political trust in capitalistic states around the world. Therefore, it can be argued that the negative fall in confidence after 2008 can be attributed to the financial crisis.

The included economic indicators are used to describe the economic condition in a country. I assume that as a consequence of an economic crisis, the economic measures growth, GDP, debt and level of unemployment will be affected. As a consequence, political trust among the citizens is affected and assumed reduced. In the period between 2008 and 2010, these indicators have changed considerably. Many countries have experienced an increase in unemployment, which also can be problematic in a recession. All of the countries have experienced a decreased growth, as well as a lower level of GDP. The crisis that started in 2008 is the worst since the Great Depression in the 1930's, and will have repercussions for a long time (Hilsenrath, Ng, and Damian 2008).

The findings suggest, first of all, that economic performance *does* impact levels of trust. I find this when testing the correlations between *degree* of unemployment, debt, growth and GDP, and political trust. A country's level on all of these indicators, except debt, does affect citizen's confidence. Second, I wanted to find out how the finical crisis has impacted levels of trust. To this question, I find that, in the countries severely affected by the financial crisis, it has

led to a decline in political trust. If the results are due to the actual increase/or decrease in the macroeconomic indicators used, or because of the way the policy-makers have handled the crisis, is not possible to answer with absolute certainty. However, if a decline is a consequence of the indicators used or austerity measures, it is *still* a consequence of the crisis.

Today, in 2013, several years after the crisis started, many Europeans are unemployed or underemployed. At recent rates of reaction, we will, according to Krugman (2012), not be back to normal levels of employment until around 2020. It is therefore important that policy-makers realize that the financial crisis may not only inflict serious economic consequences, but also possible political costs, as a result of the way the crisis has been handled.

2. Theory and previous research on political trust

In this chapter I first define the concept of political trust. This is important because trust is a multi-dimensional phenomenon, and a concretization of how trust is defined in this context is regarded as necessary. Next, the importance of political trust is discussed. In section 2.3 I look at trends in political trust, and study the sample of countries to look for indications of a possible negative trend. In section 2.4, I discuss the relationship between political trust and economic performance. Section 2.5 deals with the causes and consequences of the financial crisis. In the last subsection, I look at the importance of the macroeconomic indicators, and how they have changed as a consequence of the crisis.

2.1 Defining political trust

The concept of political support is multidimensional, and different terms are often used to describe the same phenomenon. Norris (1999) uses the notation *support*. In this thesis I mostly employ the terms *trust* or *political trust,* but *support* and *confidence* will also be used. Political trust can be divided into three forms: thick, interpersonal and systemic or institutional trust (Levi 1998; Newton 2001). In this study I am concerned with the third form of trust, because this part of the phenomenon is connected to political institutions. Hardin (1998) problematize if it is possible to generalize and apply psychological and normative individual behavior to institutional behavior. Trust in institutions and trust in other individuals is thus not the same:

> My conclusion will be that a claim that one trust government is not closely analogous to a claim that one trusts another person. One might still wish to say that a citizen can trust government, but this "trust" is different from the trust that I might have in you. The seeming goodness and importance of ordinary interpersonal trust does not clearly transfer to any nonanalogous notion of trust in government (Hardin 1998: 10).

If trust does not generalize to institutions, it is of limited interest in political theory. A common understanding is that interest does not transfer from individual to group or national levels. He states that it should not be surprising to find that trust, which is often an issue just because interests are at stake, does not generalize either. Nevertheless, the encapsulated-interest conception of trust can be generalized to fit institutions. In actual life we might not trust an institution, but depend on its apparent predictability from its past behavior. Then, we might have an expectation of the organizations behavior (Hardin 1998: 152f).

Another way of dividing the different levels of trust hails from Easton (1965, 1975). He draws a valuable distinction between support for the political community, regime, and

authorities. Building upon this foundation, Norris (1999) classifies trust in a hierarchy that ranges from specific to general. Norris' fivefold conceptualization draws a line between *political actors, regime institutions, regime performance, regime principles,* and *political community. Political community* is the most diffuse level while *Political actors* is the most concrete.

Figure 2: Operationalization of Political Trust using Norris (1999) definition.

Diffuse support

Specific support
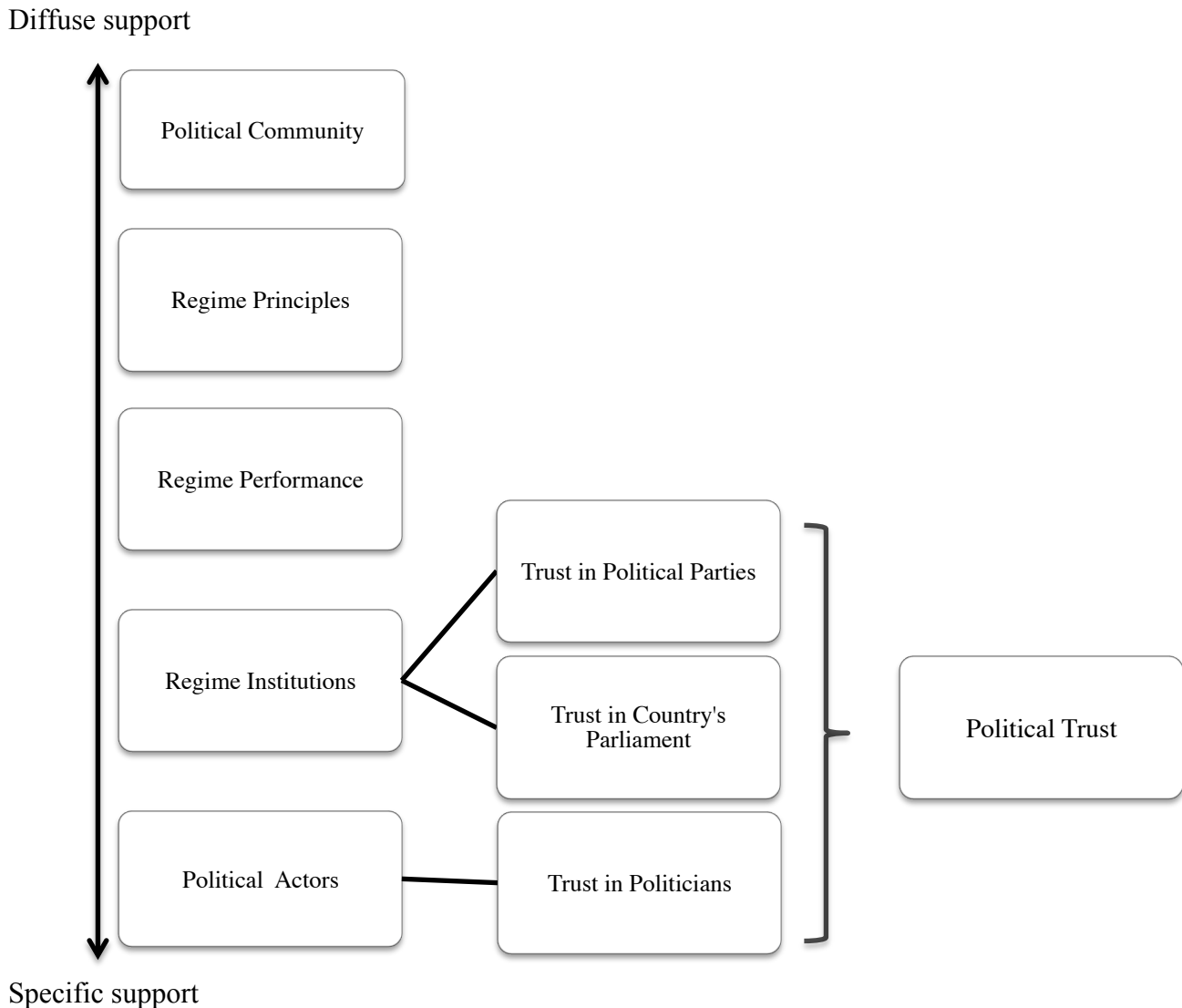
The first level, *political community*, concerns support which is usually understood as a basic attachment to the nation beyond the present institutions of government and the general willingness to cooperate together politically. The next level refers to support for the core *regime principles* representing the values of the political system. In a democratic state, which all the sample countries are defined as, this dimension refers to "idealist" definitions of democracy, derived from classical liberal theory. Since democracy remains an essentially

contested concept, open to multiple meanings, there is no consensus about which values should be nominated as the most important.

Nevertheless, the basic principles of democratic regimes are commonly understood to include values such as freedom, participation, tolerance and moderation, respect for legal-institutional rights and the rule of law (Norris 1999: 11). The third level concerns evaluations of *regime performance*, meaning support for how authoritarian or democratic political systems function in practice. This "middle level" of support which is often difficult to grasp, is often measured with how satisfied the respondents are with the state of the democracy in the country. The fourth level, *regime institutions*, includes attitudes toward governments, parliaments, the executives, the legal system and the police force, the state bureaucracy, political parties, and the military. This level is good to measure generalized support for institutions and political parties. The last level focuses on trust towards particular party leaders or politicians. The last two levels can be hard to distinguish because the dividing line between the office and incumbents is often fuzzy (Norris 1999: 12).

The dependent variable in my study includes *regime institutions* with the measures TRUST IN COUNTRIES PARLIAMENT and TRUST IN POLITICAL PARTIES and *political actors* in the form of TRUST IN POLITICIANS. I have chosen to measure the two most specific levels of trust, because these two are the levels that most likely would have been affected by the economic crisis. Listhaug and Ringdal (2008: 134) state "For established democracies it might be more meaningful to compare trust levels in the medium and lower levels of the trust hierarchy, like confidence in institutions and trust in politicians." Also, Both Easton (1965) and Norris (1999) find evidence suggesting that economic crises or political shifts are only temporary events, that affect trust in political incumbents deeper than confidence in the whole political system.

2.2 The importance of political trust

Democracy thrives on popular support and withers in its absence (Easton 1965). Political trust is essential for the stability of democracy, and a basic prerequisite for the legitimacy of those entrusted with political power (Hardin 1998; Levi 1998). Levi (1998) argues that citizens are more likely to comply with norms if they perceive the government as credible. Thus, in order to produce and achieve political outcomes, it is important that trust is present. A decline in confidence can have negative consequences for democracy and the political institutions. High political trust signals that the institutions function properly and effectively, and helps to keep democracy alive (Listhaug and Ringdal 2008). It also facilitates social and economic exchange

and reduces transaction costs in markets. Trust reduces the need for control and supervision, which saves money for the government as well as for firms and other actors in the private sector. This indicates that countries with high levels of trust will have an advantage in attracting investments, trade and tourism, compared to countries with low levels of political trust.

Listhaug and Ringdal (2008: 131) view political trust as a success criterion for societies. A more general argumentation claims that with the absence of trust in political institutions, the legitimacy of those institutions is endangered (Kaltenthaler, Anderson and Miller 2010), and citizens undermining the authority of those institutions become more likely (Roth et.al 2011). Without sufficient trust, citizens might begin to undermine the authority of the policy-making institutions, which might ultimately lead to an abolition of it (Kaltenthaler et al. 2010). Or as John Locke (1690) put it "…the ground for trusting rulers are to be found in the sanctions that punish breaches of trust". Without sufficient levels of trust citizens may try to hold back tax money, the overall compliance with law will decrease, and young talented graduates may not be willing to work for governmental institutions (Nye 1997). This implies that it would be dangerous if large numbers of citizens started to distrust the political institutions in their country (Kaltenthaler et al. 2010).

2.3 Political trust: Trends and comparisons

Politicians often speak of a crisis in democracy due to constantly declining trust in government. However, it is not certain whether empirical facts support this conclusion (Norris 1999). Are there legitimate grounds for the concern about the declining public support for representative democracies worldwide? And what constitutes a worrying decline in political trust? According to Newton (2001: 205) an abrupt or steady decline of trust from the long-term trends should be regarded as worrying (Newton 2001: 205). Dalton and Wattenberg (2000) find that the trust in government and political institutions has been falling in advanced industrialized democracies since the late 1960s. They also show that in industrialized democracies trust in political parties is eroding. Related to this, public confidence in parliaments has similarly decreased in the last decade (Dalton 2004). The European Science Foundation concluded in 1995, in the large *Beliefs in Government project* (BIG), that there was no general decline in political trust in Western Europe (Klingemann and Fuchs 1995). Norris (1999) extended this research past the mid 1990's and expanded the data to cover non-Western countries as well. According to this research citizens remained committed to the values of democracy. Dalton (2004) demonstrates that political trust in advanced industrial countries is declining. Klingemann (1999) finds that support for democratic ideals and principles are robust in all parts of the world, but the support

is somewhat stronger in Western Europe.[2] According to Listhaug and Aardal (2003), levels of support are higher in stable democracies compared to new democracies.[3]

However, research that rejects the hypothesis of a universal decline of trust in the public sector also exists (Van de Walle, Van Roosbroek, and Bouckaert 2008). They argue that there is little evidence of an overall long-term decline in trust in government, and that there are fluctuations rather than a stable trend. McAllister's (1999) research suggests that there are few consistent trends in popular support for the *political community,* but high and perhaps even growing support for *democratic values*. His research also indicates declining support for *regime institutions and political leaders*. This indicates that there might be a negative trend in the more specific levels of trust, like political trust, but not necessary a decline in the diffuse levels, like regime principles and democratic values. Therefore, it makes sense to limit the research area to the more specific levels of trust, which is what I have chosen to do in this thesis.

Table 1 show the mean values of political trust in the sample countries in 2004, 2006, 2008, and 2010. Political trust is combined from the three measures TRUST IN COUNTRIES PARLIAMENT, TRUST IN POLITICAL PARTIES, and TRUST IN POLITICIANS.[4] In order to control for a possible declining trend in political trust, I have also included the 2002 and 2004 European Social Surveys.

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[2] Klingemann used Values survey data from 1995 to 1997 (Klingemann 1999)
[3] They classified countries in three groups (stable democracies, new democracies and transitional democracies), and compared the countries in five dimensions of political trust: how the current system is rated compared to the communist regime, satisfaction with how democracy is developing, rejection of non-democratic forms of government, rejection of criticism of democracy, and support for democracy as a principle.
[4] For more on the scale construction see section 3.2.

Table 1: Political trust – average trend[5]

	2004	2006	2008	2010
Belgium	13,2	13,7	12,6	12,2
Bulgaria	-	5,6	5,1	6,4
Switzerland	14,8	15,3	15,2	15,6
Cyprus	-	14,2	14,1	11,7
Czech Republic	8,5	-	8,6	8,6
Germany	10,4	10,5	11,5	10,7
Denmark	17,6	17,7	17,8	16,1
Estonia	10,5	11,5	10,4	11,3
Spain	12,5	12,0	11,7	9,8
Finland	15,9	15,9	15,8	14,4
France	11,2	10,8	11,3	10,4
United Kingdom	11,3	11,0	11,4	10,9
Greece	11,9	-	8,5	4,8
Croatia	-	-	7,4	5,6
Hungary	9,1	8,5	6,5	10,5
Ireland	12,8	12,5	10,3	9,7
Netherlands	14,0	15,4	15,8	15,8
Norway	14,0	14,6	15,2	15,9
Poland	6,2	6,9	7,6	8,6
Portugal	7,9	9,0	8,4	7,0
Russia	-	8,9	10,4	9,7
Sweden	13,9	14,7	15,2	16,5
Slovenia	10,4	10,7	11,3	7,5
Slovakia	8,2	11,4	11,5	9,1
Ukraine	11,1	6,5	4,5	5,9

Numbers marked in red, are countries that have experienced
reduced political trust between 2008 and 2010. In columns
without values the countries haven't taken part in the survey.

The table shows that 15 out of the 25 countries in the sample have experienced decreased trust between 2008 and 2010. Eight countries are experiencing increased trust, while two countries have the same levels of trust. Out of the 15 countries experiencing a decrease in trust, it is just Cyprus, Denmark, Spain, Finland, Greece, Croatia, Ireland, and Slovenia that one can argue have had an abrupt decrease after the financial crisis. In Belgium, a small decline in trust has been evident for each year the survey has been conducted. However, the decline from the before and after measures, are not severe enough for it to be argued that the decline steams from the financial crisis. In Germany, France, Portugal, Russia, Slovakia, and the United Kingdom, trust has both decreased and increased through each survey-year. Therefore, it is also difficult to argue that the decrease in these countries is a consequence of the financial crisis.

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[5] For graphical presentation of trends in political trust, see Figures A1 through A5 in the Appendix.

Figure 3: Trend in political trust – all countries combined
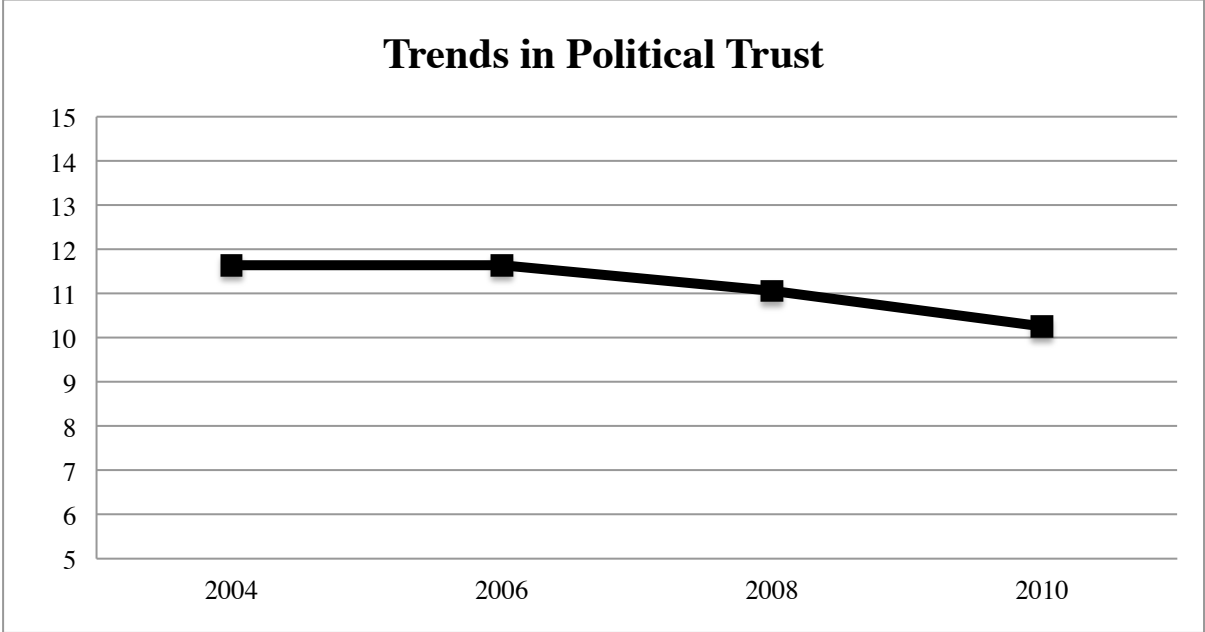
Trends in Political Trust

Political trust is a scale computed by TRUST IN COUNTRIES PARLIAMENT, TRUST IN POLITICAL PARTIES and TRUST IN POLITICIANS, and ranges from $0 - 30$. $N = 169\ 400$ individuals in 25 countries.[6]

Figure 3 illustrates the mean value of political trust combined for all the counties in the sample. The graph indicates that political trust is unchanged from 2004 to 2006, while it decreases from 11.6 to 11.1 between 2006 and 2008, and from 11.1 to 10.3 between 2008 and 2010. The decrease from 2008 to 2010 is larger than the decrease from 2006 to 2008, but is still not severe enough to argue that the economic crisis is the only cause for the decline, or if it's just a continuation of an earlier trend. The fact that political trust also declines between 2006 and 2008, both time-points before the financial crisis,[7] may indicate a negative trend, more than an effect of the financial crisis. From this figure where all countries are combined, there is no real indications that the crisis has affected levels of political trust. However, because the crisis have affected countries differently, it is necessary to study the change in trust when divided into subgroups. This is done in the figure beneath.

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[6] The countries included in the figure are Belgium, Bulgaria, Switzerland, Cyprus, Czech Republic, Germany, Denmark, Estonia, Spain, Finland, France, United Kingdom, Greece, Croatia, Hungary, Ireland, Netherlands, Norway, Poland, Portugal, Russia, Sweden, Slovenia, Slovakia, Ukraine.

[7] As mentioned before, it takes time before the levels of trust are affected by the economic crisis, and therefore the 2008 data are to close to the beginning of the crisis to be used as a "during-crisis" measure point.

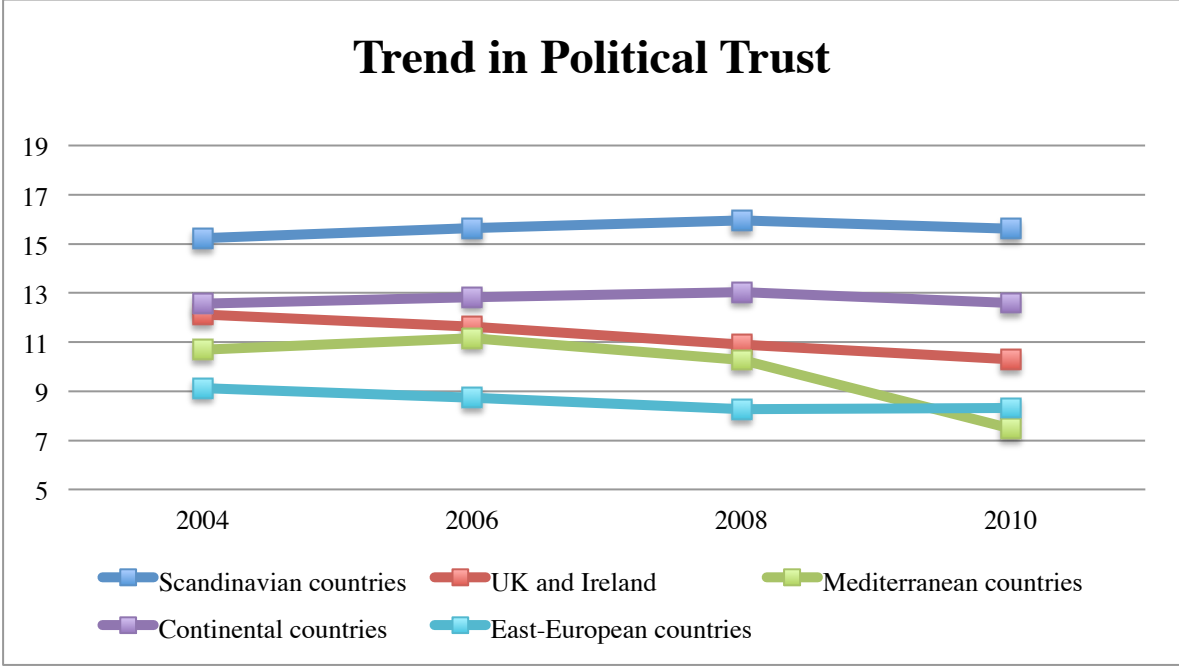**Figure 4**: Trend in Political Trust – countries divided in subgroups

Political trust is a scale computed by TRUST IN COUNTRIES PARLIAMENT, TRUST IN POLITICAL PARTIES and TRUST IN POLITICIANS, and ranges from 0 – 30. N = 169 400 individuals in 25 countries.[8]

The figure above illustrates trends in mean political trust in the sample countries categorized in subgroups. The same questions and sample are used here, as in the previous graph. The countries are placed in five categories; Scandinavian, Mediterranean, East-European and continental countries, while UK and Ireland are placed in the final category. The Scandinavian countries show an increase in political trust from 2004 to 2008, and a small decline between 2008 and 2010. The mean value decreases from 15.96 to 15.62 in this time period. It is not a severe decline, but the graph seemed to be increasing before the 2010 measure, which may indicate that something made the trust decline. It may also just be a fluctuation from the trend. The same trend can be seen in the continental countries as well. In UK and Ireland, the trust has been declining from 2004 to 2010.

In the Mediterranean countries however, trust levels increases between 2004 and 2006, decreases between 2006 and 2008, and falls severely between 2008 and 2010. This indicates that levels of trust has been falling from 2006, *before* the crisis, but the fall between 2008 and 2010, is so significant that it is possible to state that this is an effect of the crisis. Between 2006

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[8] *Scandinavian Countries*: Denmark, Norway, Sweeden, and Finland. *Continental Countries*: Belgium, Switzerland, Germany, France, Netherlands. *East-European countries*: Bulgaria, Czech Republic, Estonia, Croatia, Hungary, Poland, Russia, Slovenia, Slovakia, Ukraine. *Mediterranean countries*: Greece, Spain, Portugal and Cyprus.

and 2008, level of trust fall from 11.15 to 10.28, while it between 2008 and 2010 fell down to only 7.48, which is a severe decrease. When comparing Mediterranean countries to the other subgroups, this is the category that has been affected by the crisis hardest. Greece, Spain, Cyprus and Portugal have all been feeling the effects of the financial crisis through, among other, very high unemployment and low economic growth. This supports the argument that economic performance, and the financial crisis, does affect levels of trust.

In the East-European countries the trust decreases from 2004 to 2008, and actually increases from 2008 to 2010. East-European countries are not as integrated in the world economy as the other European countries, and therefore not as affected by the crisis. This may explain the increase after the crisis occurred. However, there is a possibility that this is a "rally around the flag" effect, meaning a short-run increase in levels of support towards the leaders, or in this case, the political institutions in a country (Nannestad and Paldam 1994).

2.4 Economic performance and political trust

According to Bouckaert & Van de Walle (2001), a number of authors and politicians relate trust to good performance of government. The performance approach has two main parts, in which the first part deals with macro-performance, like unemployment, economic growth and inflation (Brown and Coulter 1983; Miller and Listhaug 1999; Anderson 1995; Kornberg and Clarke 1994; Zussman 1997), while the second part deals with micro-performance, that is, government service delivery (Norén 2000; Rose and Pettersen 2000). If there are variations in trust across countries, this may be due to variations in unemployment rates, the stability of governments etc. (Listhaug and Wiberg 1995). However, Blind (2006) argues that symptoms do not explain the causes of declining trust, and many different factors may be behind a decline. Public fear that governments have been incapable of dealing with previous current fiscal and financial challenges, in addition to periods of low economic growth, have been cited by several authors as possible factors (Blind 2006; Mansbridge 1997; Newton and Norris 2000). This is important because this indicate that the it might not be for example unemployment directly that is the cause, but actually the way governments have handled the crisis.

To be able to answer the research question, the focus in this thesis will be on macro-performance and its impact on political trust. However, I also need to be aware of Blind's (2006) argument, that even if the results indicate that for example level of unemployment has an effect on political trust, it may be other factors than the actual increase that is behind the decline in trust. Also, as stated according to previous research, the key to investigate

satisfaction with performance, that in turn leads to trust, is the imbalance between expectations and performance, or the perception of it. Anderson (1973) describes different theories dealing with this imbalance. One of these theories indicates that any discrepancy between reality and expectations, even if small, will lead to a generalized negative state. Another theory claims that depending on the extent of the mismatch, it will either be enlarged or minimized (Anderson 1973; Bouckaert and Van de Walle 2001). From this, it is indicated that economic performance, in this case how governments respond to an economic crisis, is important for the levels of trust. By applying the two theories presented above to the recent economic crisis, it is expected that if citizens are disappointed with the way the government handle the crisis, levels of trust will decrease.

Parts of the literature indicate that people have confidence in their leaders, either in form of people or institutions, when the government is working well. According to Uslaner (2002) people's perceptions and opinions about government performance reflect their evaluations of specific personalities, institutions and policies. If the government does not manage to produce the outcomes expected by the people, trust is then assumed decreased. Several researchers (Easton 1965; McAllister 1999; Norris 1999) find that economic performance or political change may affect confidence in politicians and those in power, but not necessarily confidence in the political system as a whole. Kalenhalter et al. (2010) and Newton (2008: 243), find that reduced trust in institutions and governance system may damage the foundation of the system of government. Absence of political confidence could threaten government's legitimacy, and the chance that citizens undermine the government's authority increases. This is detrimental to democracy. Mistrust by the citizens is often expressed as an unwillingness to follow the political outcome, and this prevent progress from happening in the political process (Norris 1999).

What governments are able to accomplish is important for political trust, especially the economic performance, but also the expectations to this performance (Listhaug and Ringdal 2008; Nannestad and Paldam 1994: 215). People trust governments more if they have shown a capacity to generate economic growth, create jobs, provide access to social services and perform in a transparent manner (Fiorina 1978; Mackuen et al. 1992). When the government works well, citizens have confidence in those who govern, whether this is institutions, people, or political parties. In a recession however, the opposite will occur, and support for the government will be affected in a negative way (Listhaug and Ringdal 2008; Miller and Listhaug 1999; Nannestad and Paldam 1994: 215; Roth, Nowak-Lehman and Otter 2011; Uslaner 2002). According to Fiorina (1978), Mackuen et al. (1992), and Roth et al. (2011),

economic growth and access to work and social services makes citizens rely more on the government. If there is any doubt that the authorities are capable of managing the national economy, or respond to possible challenges in the event of an economic crisis, it may create mistrust. An argument against this is that, if trust has in fact declined, it has done so over a period of economic growth. However, political trust is influenced by many factors, and it may be the case that if growth has not increased, the levels of trust would have been even lower. Nye (1997) argues that citizens' doubts regarding their national economy and governments' ability to respond to these challenges could create even more distrust now, compared to earlier, because, as will be discussed later, the economy is more globalized today. According to Listhaug and Wiberg (1995) a lower gross national income will lower confidence in political institutions. From this, it is accurate to assume that both a positive growth rate and GDP will increase individual's trust in political institutions, and we can deduct the following hypotheses about the levels of growth and GDP in relation to political trust:

H_1: A high positive GDP growth rate is associated with high level of political trust.

H_2: A high level of GDP per capita leads to high levels of political trust.

Several researchers find that increased unemployment correlates with reduced political trust (e.g., Earle 2009; Midthjell 2010; Roth et al. 2011). Research on the effects of increased unemployment from earlier periods, also finds that in many countries, where unemployment levels have increased, this has contributed to reduced trust in politicians, political parties and political institutions (Listhaug and Wiberg 1995). Veiga and Veiga (2004) did a case study on Portugal, which indicates a strong effect of unemployment levels on a government's popularity. Another case study, done by Sanders (2000) on the United Kingdom, finds that voters decide on the basis of government results regarding unemployment and inflation, and on the basis of expectations about the economic future. From this it is possible to assume that in countries where the unemployment rate is high, levels of political trust are low. This would reflect citizen's dissatisfaction with government's capability to manage the national economy, and respond for example an economic crisis. From this the hypothesis is as follows:

H_3: A low level of unemployment is associated with high political trust.

In a recent study on trust in political institutions by Roth et al. (2010), the relationship between debt and trust in political institutions was investigated. They looked at 27 European countries with data from both before and after the financial crisis, and concluded that an increase in GDP

debt reduces trust. Increased government debt often decreases spending, and when states tighten budgets and the banks become less willing to give out loans, the economic activity goes down. This happens in a situation where economic growth is already low and unemployment high (Regjeringen 2012). Therefore, it is reason to believe that for countries where the debt has increased, the citizen's trust will be reduced. Hence, the following hypothesis appears:

H_4: High GDP debt in percent of GDP in a country will lead to a lower level of political trust.

In evaluating the influence of the economic conditions on political behavior, there is a crucial distinction between economic perception and economic reality. Considerable evidence suggests that voters believe that it is a central responsibility of the government to deliver high levels of economic performance. Since economic performance is judged by collective, rather than individual criteria, popular perceptions about the economy are shaped principally by the mass media and through an assessment of national economic conditions, and less by individual economic circumstances. Since these perceptions are mainly collective, they relate directly to governments and also, to some degree, to political institutions (McAllister 1999).

The relationship between real economic performance and levels of political support is a complex one. First, it is not the economy, itself that leads to a decline in political trust, but the citizens' *perceptions* of economic performance. If citizens haven't had information any information about the state of the economy, neither inflation nor unemployment would influence the levels of political support in any way (Huseby 1999). Hence, the perceptions of economic performance are essential in the relationship between real economic performance and political support. Both Dalton (2004) and Huseby (1999) find that individual's perception of economic achievements can exert a direct impact on people's perception of the government, and may be more important than the economic numbers and the real economic situation. If the individual is negative towards the economic situation, or its own private economy, it can be reflected in the degree of political support.

> Another version of the economic performance thesis suggests that individual-level perceptions of economic conditions may exert a more direct influence on citizen images of government than aggregate economic statistics. If citizens are pessimistic (or optimistic) about the economy and their personal economic situation, then these perceptions may be linked to feelings of political support. In other words, perceptions are realty when explaining individual citizen behavior (Dalton 2004: 4).

Literature on political knowledge (Zaller 1992; Delli Carpini and Keeter 1991, 1993) implies that there is no reason to believe that all citizens, in all countries, at any time, will have full information about the state of the economy, or that they will perceive information about the economic performance in the same way. There are strong theoretical reasons to expect that government's achievements affect individuals' degree of political trust. I have conducted a table including a variable that measures individual's satisfaction with the state of the economy. However, this measure is excluded in the main tables because it highly correlated with the dependent variable, see Appendix B, and also to some of the macroeconomic indicators. I will return to this discussion in section 4.3.

According to Nannestad and Paldam (1994), individuals hold the government responsible for economic development.[9] The VP approach is often used when studying trust and support for governments. According to Nannestad and Paldam, the VP theory starts from the hypothesis that voters hold the government responsible for economic conditions. In their review, they conclude that nearly all studies have found highly significant VP functions, and that a clear pattern appears in the results. The most relevant findings from Nannestad and Paldam are that voters hold governments responsible for the development in the economy, and that a good economic development increases the popularity of the government, while a bad development decreases the popularity. The two most critical variables are unemployment and inflation (Nannestad and Paldam 1994: 216).

Roth (2009) finds that net trust in national government and parliament, increased in the direct aftermath of the financial crisis, which may indicate a so-called "rally around the flag" effect[10] (Nannestad and Paldam 1994). His findings also suggest that the financial crisis is associated with a significant loss of citizens' trust in the national parliament and government in the periphery countries Greece, Spain, Ireland and Portugal. It is also evidence that an increased debt is associated with the loss of trust (Roth 2009; Roth et.al 2011).

From this section there are clear indications that economic performance has an impact on the levels of political trust. Much research has indicated macro-factors relevance as well. However, as illustrated above, there is also literature that focuses on individual's perception of the economy, which cannot be ignored. Therefore, models including both types of measures have been conducted, meaning both individual perception on economic performance, as well as

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[9] They have reviewed 25 years of research and literature on voters and popularity (VP) functions that explains, using economic and political variables, the support for government at elections and public opinion polls.
[10] As mentioned before is a short-run increase in support for the political institutions in a country (Nannestad and Paldam 1994).

macroeconomic measures like unemployment, GDP, growth and debt. This will be discussed further in Chapter 4.

2.5 The financial crisis

Previous research suggests that there is a connection between low trust levels and economic downturns like the financial crisis (Roth 2009; Roth et.al 2011). Most researchers agree that early signs of the economic crisis could be seen already in 2007 (Roth 2009). According to Krugman (2009) the crisis is not like any earlier crisis, but rather like everything we've ever seen before, all at once:

> …a bursting real estate bubble comparable to what happened in Japan at the end of the 1980s (albeit mainly involving the shadow banking system rather than conventional banks); a liquidity trap in the United States, again reminiscent of Japan; and, most recently, a disruption of international capital flows and a wave of currency crises all to reminiscent of what happened to Asia in the late 1990s (Krugman 1999: 165f).

The U.S. housing boom began to deflate in the fall of 2005 – but it took a while for most people to notice. As prices rose to the point where purchasing a home became out of reach for many Americans,[11] sales began to slacken off. Krugman writes that it was "a hissing sound as air began to leak out of the bubble" (Krugman 2009: 166f). By late spring of 2006, the weakness of the market started so sink in, and prices began dropping. By the second quarter of 2007, according to the widely used Chase-Shiller home price index, prices were only about three percent, but over the course of the next year, they fell more than 15 percent (*IBID*).

The housing bubble in the U.S. started because the banks lend money to loan takers that didn't have security in another property, or enough income to service the interest rates when they began to climb. If the borrower was unable to service the loan, and housing prices continued increasing like they had been, the borrowers with problems could either refinance the loan or sell the property. When house prices started to fall, it was harder to sell, and default interests began to increase. The complexity of the financial structure that supported the sub-prime lending dispersed ownership of mortgage loans out among many investors with different priorities on their claims, which created formidable legal obstacles against any form of debt relief. In the U.S., housing was probably overestimated by more than 50 percent in summer 2006 (*IBID*). Because of increased financial globalization, with investors in each country holding large stakes in other countries, these cross-border investments acted as what economists call a "transmission mechanism," allowing a crisis that started with the U.S.

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[11] Even with no-down-payment, and teaser-rate loans (Krugman 2009).

housing market to spread far beyond its borders. By fall 2008, the troubles of housing loans in places like Florida had destroyed the banking system in Iceland (*IBID*).

The problem for Europe was not so much these faulty loans,[12] but the willingness of European banks to buy these mortgages in securitized forms, so the risk of default spread across the globe. When the banks failed, government's bailed them out, and this has turned the financial crisis into a sovereign debt crisis (Krugman 2009, 2012). This is important, as politicians can be blamed, in form of diminishing confidence, for two things: 1) insufficient regulation of the banking sector, which led to the crisis; and 2) the bailing out of banks (which increased sovereign debt), rather than letting them go bankrupt. It is hard to know which sort of blame is being allocated.

The bailout contributed to an increase of national debt. Falling housing prices have a direct negative effect on employment through the decline in construction, and they tend to lead to reduced consumer spending, because consumers feel poorer and lose access to home equity loans. These negative effects have a multiplier effect, as falling employment leads to further declines in spending (*IBID*). The economy is stalling, despite repeated efforts by policymakers to get it going again, reminiscent of the crisis in the 1930s. We are now well into the realm of depression economics.[13] Europe's situation has become worse, and is now in a recession (Krugman 2012). For most citizens, the slump is not as bad as The Great Depression, but for the Greeks, Irish and Spaniards, who have been hit hard, it is the same kind of situation that John Maynard Keynes described in the 1930s as: "a chronic condition of sub-normal activity for a considerable period without any marked tendency either towards recovery or towards complete collapse" (Keynes 1936). This reflects a lack of jobs, which inflicts enormous cumulative human danger (Krugman 2012). Compared to the U.S., Europe has suffered an employment slump that's not quite as bad, but in terms of gross domestic product, countries in Europe have done worse.

The European experience is highly uneven across nations. Although Germany is relatively unscathed, the European periphery, according to Krugman (2012), is facing a much more severe situation. But because of the strong safety nets in European countries, the immediate consequences of unemployment are much less severe compared to the United States for example. Also, citizens of the European Union are free to travel across borders and find work, and many have chosen to do so. The international Monetary Found has studied the

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[12] It was legislation in the U.S. in the 90s that forced banks to give loans to bad customers.

[13] Depression economics means that it is failures on the demand side of the economy. It is insufficient private spending to make use of the available productive capacity (Krugman 2009:182).

aftermath of past financial crises in a number of countries, and the findings are deeply disturbing. Not only do such crises inflict severe short-run damage, but they seem to take a huge long-term toll as well, with growth and employment shifted more or less permanently onto a lower track (Krugman 2012: 17).

2.6 Economic indicators – evidence in numbers

To be able to see if economic performance affects levels of trust, I need to control the actual economic situation by using macroeconomic indicators. I argue that by looking at the actual situation in the economy, and not only individual's perceptions of the economic situation, I am able to get a bigger understanding of how economic performance influences political trust. In this section, the hypothesis regarding the financial crisis effect on actual economic situation is presented, as the previous hypotheses have focused on economic performance more in general.

Which economic variables should be included in the analyses to map a crisis effect on political trust? Nannestad and Paldam (1994) find, as mentioned before, that unemployment is an important measure of the economic situation, but sometimes the real growth rate works better. Felix Roth (2011) uses the classical macroeconomic variables: inflation, unemployment, GDP growth and add GDP gross debt. Economic growth and unemployment have been used as economic indicators in previous literature on trust in government, which indicates their importance (Fiorina 1978; Mackuen et al. 1992; Roth et al. 2011). Roth et al. (2011) finds that a fast increase in debt, which happened when banks were bailed out, leads to a deterioration of citizens' trust. One example of this is Ireland in 2010. GDP gross debt is included in the analysis to address the dramatic increases in debt in the aftermath of the financial crisis. According to Roth et al. (2011) inflation is only affecting people's trust when the economy runs smoothly. They argue that in times of crisis, citizens do not worry about inflation, but rather about jobs and the effects of a recession. Because of this, and because it is difficult to measure inflation in a satisfactory way,[14] I have chosen to include measures on GDP growth, GDP per capita, GDP gross debt and unemployment, in the two main models. Inflation has been controlled for, but these models are added as sensitivity models in the Appendix.

GDP is an indicator for total value added in a country, and also gives an expression of gross income from domestic production activity (World Bank 2013c). GDP is one of the most frequently used indicators when measuring economic activity and production, and is therefore an important indicator to measure the effect of an economic crisis (Brandal 2012).

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[14] The problem with measuring inflation is that high levels as well as low levels are considered bad for the economy. This will be discussed further later.

Table 2: GDP per capita (current US$)

	2003	2005	2007	2009
Belgium	30,039.09	36,011.47	43,255.40	43,848.00
Bulgaria	2,641.79	3,733.26	5,498.04	6,403.15
Croatia	7,689.96	10,090.37	13,376.01	*13,461.40*
Cyprus	18,428.93	22,430.61	27,860.28	29,427.91
Czech Republic	9,335.68	12,705.62	17,467.42	18,805.66
Denmark	39,443.27	47,546.59	57,021.17	56,226.58
Estonia	7,270.28	10,330.24	16,392.72	14,264.01
Finland	31,508.88	37,318.80	46,538.17	44,837.71
France	28,794.17	33,819.14	40,342.24	40,477.06
United Kingdom	31,152.99	38,121.56	46,330.25	35,331.28
Germany	29,367.41	33,542.78	40,402.99	40,275.25
Greece	17,494.44	21,620.72	27,288.33	*25,832.21*
Hungary	8,247.00	10,936.95	13,534.71	12,634.55
Ireland	39,814.93	48,866.39	*59,573.57*	*45,873.19*
Netherlands	33,177.36	39,122.29	47,770.80	48,173.91
Norway	49,263.51	65,767.02	83,556.25	77,610.02
Poland	5,674.74	7,963.02	11,157.27	11,293.85
Portugal	15,509.13	18,185.62	21,845.24	22,015.92
Russia	2,976.14	5,337.07	9,146.42	8,615.66
Slovakia	8,520.59	11,384.53	15,583.40	16,100.08
Slovenia	14,607.20	17,854.64	23,441.00	24,051.04
Spain	21,041.54	26,056.39	32,118.10	31,714.24
Sweden	35,131.21	41,040.67	50,558.40	43,639.55
Switzerland	45,588.62	51,734.30	59,663.77	65,790.07
Ukraine	1,048.52	1,828.72	3,068.61	2,973.98

For Croatia, Greece, Ireland and Ukraine, 2010 levels of GDP are used instead of 2009, and for Ireland in 2007 it is used 2008 levels. This is because of the ESS collection periods. Data are in constant U.S. dollars. Numbers marked in red indicates a reduced GDP from 2007 to 2009.

In this sample, GDP per capita is lower in 13 out of 25 countries in 2009 compared to 2007. Gross domestic product, which normally grows a couple percent a year, is barely above its pre-crisis peak even in countries that have seen a relatively strong recovery, and it is down by double digits in several European states (Krugman 2012). When GDP is high, the economic activity is high as well. Since it is expected that high levels of GDP correlate with high levels of trust, it is assumed that in countries where GDP is reduced as a consequence of the crisis, the trust has been reduced as well. From this, the fifth hypothesis arises:

H5: A decrease in GDP per capita will result in reduced political trust.

Table 3: GDP growth (in percent of GDP)

	2003	**2005**	**2007**	**2009**
Belgium	0.81	1.75	2.88	-2.78
Bulgaria	5.50	6.40	6.40	-5.50
Switzerland	0.02	2.69	3.85	-1.94
Cyprus	1.93	3.91	5.13	-1.67
Czech Republic	3.77	6.75	5.73	-4.51
Germany	-0.38	0.68	3.27	-5.13
Denmark	0.38	2.45	1.58	-5.67
Estonia	7.77	8.85	7.49	-14.07
Spain	3.09	3.58	3.48	-3.74
Finland	2.01	2.92	5.34	-8.54
France	0.90	1.83	2.29	-3.15
United Kingdom	3.81	2.77	3.63	-3.97
Greece	5.94	2.28	3.54	-4.94
Croatia	5.37	4.28	5.06	-1.41
Hungary	3.85	3.96	0.11	-6.80
Ireland	4.16	5.34	-2.97	-0.43
Netherlands	0.34	2.05	3.92	-3.67
Norway	0.98	2.59	2.65	-1.67
Poland	3.87	3.62	6.79	1.63
Portugal	-0.91	0.78	2.37	-2.91
Russia	7.30	6.38	8.54	-7.82
Sweden	2.34	3.16	3.31	-5.03
Slovenia	2.93	4.01	6.87	-8.01
Slovakia	4.78	6.66	10.49	-4.93
Ukraine	9.40	2.70	7.90	4.20

For Croatia, Greece, Ireland and Ukraine, 2010 levels of growth are used instead of 2009, and for Ireland in 2007 it is used 2008 levels. This is because of the ESS collection periods. Numbers marked in red illustrates a decreased growth rate.

GDP growth is the annual percentage growth rate of GDP per capita based on constant local currency (World Bank 2013a). A decline in GDP growth is negative for countries economies, and a negative growth is regarded as very serious.

Table 3 illustrates that *all* the countries had a lower growth in GDP in 2009 compared to in 2007, and out of the 25 countries, 22 of them have gone from having a positive, to a negative growth rate. Some of the countries experienced a more severe decrease than others, but the overall trend is alarming. It is only two of the countries, Ukraine and Poland, that had a positive rate, but the growth has also decreased much in these countries. A possible reason for Ukraine and Poland's positive growth can be that they are not as integrated in the Western economy, as the other countries are. From this table, the implication of the crisis indicates that the countries economies have regressed many years before the crisis appeared. From this reasoning, the following hypothesis can be deducted:

H₆: A decreased GDP growth rate, as a consequence of the financial crisis, will reduce citizens' political trust.

Table 4: Unemployment (yearly in percent)

	2003	2005	2007	2009
Belgium	8.20	8.40	7.50	7.90
Bulgaria	13.70	10.10	6.90	6.80
Switzerland	4.10	4.40	3.60	4.10
Cyprus	4.10	5.30	3.90	5.30
Czech Republic	7.80	7.90	5.30	6.70
Germany	9.30	11.10	8.60	7.70
Denmark	5.40	4.80	3.80	6.00
Estonia	10.70	7.90	4.70	13.80
Spain	11.30	9.20	8.30	18.00
Finland	9.00	8.40	6.80	8.20
France	8.60	8.90	8.00	9.10
United Kingdom	4.80	4.60	5.20	7.70
Greece	9.70	9.90	8.30	12.5
Croatia	-	-	9.60	11.8
Hungary	5.90	7.20	7.40	10.00
Ireland	4.50	4.30	6.00	13.5
Netherlands	3.60	4.70	3.20	3.40
Norway	4.40	4.60	2.50	3.20
Poland	19.60	17.70	9.60	8.20
Portugal	6.30	7.60	8.00	9.50
Russia	8.20	7.20	6.10	8.40
Sweden	5.80	7.70	6.10	8.30
Slovenia	6.70	6.50	4.80	5.90
Slovakia	17.50	16.20	11.00	12.10
Ukraine	9.10	7.20	6.40	8.70

For Croatia, Greece, Ireland and Ukraine, 2010 levels of unemployment are used instead of 2009, and for Ireland in 2007, 2008 levels are used. This is because of the ESS collection periods. Numbers marked in red illustrates increased unemployment rate between 2007 and 2009.

According to Krugman (2012), current unemployment has reached levels that would have seemed inconceivable before the crisis. Youth unemployment in Italy and Ireland is approaching 30 percent, while in Spain it is reaching 43 percent (Krugman 2012). Low unemployment indicates that there is pressure in the labor market. Wages increase, which may lead to price pressure, high production and generally good times. High unemployment indicates the opposite. Trends in the unemployment rate reflect the state of the economy, but the effect does not show immediately. As the figures for GDP often are revised afterwards, the development in unemployment provides a picture of how the state of the economy has been (Brandal 2012). Therefore, it may be a possibility that not enough time has past after the crisis, and that it is too early to see an effect on unemployment. Stevenson and Wolfers (2011) and

Roth et al. (2011) see unemployment as a key determinant of trust, and that it has a strong and negative effect on trust in public institutions.

Table 4 illustrates that out of the 25 countries in the sample, 21 of them have experienced increased unemployment. In other countries, such as Belgium, Slovenia, Switzerland, Finland and France, the increase may not be severe enough to influence trust. In Estonia, Spain, and Greece on the other hand, the unemployment level has increased so significantly that it should affect levels of trust. It is expected that an increase in unemployment will reduce political trust. Also, in countries where the financial crisis has caused a significant increase in unemployment, it is expected that this has affected trust in a negative way. Hence the following hypothesis appear:

H_8: Increase in unemployment reduces citizen's political trust.

Table 5: General government gross debt (percent of GDP)

	2003	2005	2007	2009
Belgium	98.40	92.00	84.00	95.70
Bulgaria	46.50	29.40	18.60	15.60
Switzerland	65.80	70.10	55.60	51.80
Cyprus	69.70	69.40	58.80	58.50
Czech Republic	28.60	28.40	28.00	34.30
Germany	64.40	68.50	65.40	74.70
Denmark	56.60	45.40	34.10	40.60
Estonia	5.60	4.60	3.70	7.20
Spain	48.80	43.20	36.30	53.90
Finland	44.50	41.70	35.20	43.50
France	63.20	66.70	64.20	79.20
United Kingdom	38.70	41.80	43.70	68.00
Greece	101.70	98.60	106.10	129.70
Croatia	35.40	38.20	32.90	42.20
Hungary	58.50	61.70	67.00	79.70
Ireland	30.80	27.10	44.50	92.20
Netherlands	52.00	51.80	45.30	60.80
Norway	48.40	47.80	56.80	48.90
Poland	47.10	47.10	45.00	50.90
Portugal	55.70	62.50	68.30	83.10
Russia	30.40	14.20	8.50	11.30
Sweden	51.00	50.00	39.70	42.00
Slovenia	27.60	26.80	23.10	35.00
Slovak Republic	43.40	41.50	30.50	27.90
Ukraine	29.40	17.70	12.30	40.50

For Croatia, Greece, Ireland and Ukraine, 2010 levels of debt are used instead of 2009, and for Ireland in 2007, 2008 levels are used. This is because of the ESS collection periods. Numbers marked in red illustrates increased debt in percent of GDP between 2007 and 2009.

Because the financial crisis has culminated into a sovereign debt crisis from 2010 and onwards in Europe, it is important to control for the effect of this as well (Roth et.al. 2011). I have therefore, chosen to include gross debt in percent of GDP in the analysis. In this sample, 20 out of the 25 countries have experienced an increase in general government gross debt. For most of the countries, the debt is a much larger percent of GDP in 2009 compared to 2007. During the financial crisis, many countries have responded to the crisis by implementing austerity measures. The austerity measures have led to a further deterioration of economic performance, which has lead to a rapid increase of unemployment levels in Europe's periphery (Roth et al. 2012). Measures like this are seldom popular among the citizens, and as a consequence high government debt is regarded as negative for a country's economy. Increased government debt is often linked with public policy, and for many countries increasing debt level, have been the only option to for example reduce the unemployment. One possibility is that voter confidence would be affected by the state's inability to limit spending, which would be reflected by a higher debt level.

A possible problem is that increasing the debt level is the only real alternative for countries to get out of the current crisis, and therefore, some voters might show increased levels of confidence with higher levels of debt. This challenge is controlled for by, measuring average levels of debt before the crisis, and comparing them to the effect of debt levels during the crisis. If some voters would think like mentioned above, levels of trust would be higher during the crisis with the same debt level as before the crisis (before the crisis *high* debt levels, *less* confidence, and during the crisis *high* debt levels, *more* confidence). From Figure A6 and A7, it is no indications that voters have higher trust with the same debt level before, and during the crisis. However, the tables indicate that increased debt *increases* levels of trust.[15] This might be because when even if government is running a budged deficit, *spending* continues like normal, and level of debt does not directly affect citizens in the short run. However, if government debt is ignored, it has the potential to affect citizen's daily lives by the need to reduce taxes in the future, in addition to a slower growing economy (Blanchard 2006). Previous research find that falling levels of trust in national governmental institutions during times of crises seem to be primarily related to an increase in government debt (Roth et al. 2011). From this the following hypothesis arises:

H_7: An increase in GDP gross debt leads to *reduced* political trust.

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[15] Table A8 illustrates the correlation between debt and political trust for all countries combined as well, this illustrates the same positive correlation.

When using a sample of 25 countries, it is natural that there are differences among them, and how their economies react to an economic crisis. The Norwegian economy has for example reacted differently compared to Spain's economy. As a result, the level of political trust may also be affected different across countries. The economic measures are intended to capture the variation between countries.

2.7 Other included measures

The causal relationship between dependent and independent variables is not explained by a regression analysis. A regression analysis only illustrates if there is a correlation between *X* and *Y*, and not which of the ones leads to a change in the other. Therefore it is important to explain the relationship using causal theory. I have included three variables in addition to demographic variables at the individual level. These are political interest, political participation and employment status.

Cattenberg and Moreno (2005) argue that those who express interest in politics tend to be those who actually like politics, and also those who are more politically engaged. Because the citizens are more engaged and have higher interest for politics, they will, have higher levels of trust. I therefore find it necessary to include a measure on political interest and also a measure on political participation. By controlling for this, I will separate between politically engaged and unengaged citizens. Previous research (Aardal 2003; Diven and Constantelos 2011) finds evidence that political participation and interest generates higher levels of political trust.

I have also chosen to include a measure on employment situation. The measure, which measures citizens who are unemployed and looking for a job is included, because as mentioned before, access to work and social services makes citizens rely more on the government. Being unemployed affects these citizens directly, and according to Fiorina (1978), Mackuen et al. (1992) and Roth et al. (2011), as a consequence of this, they will have lower levels of trust. Also mentioned before, many countries, for example Spain, have a very high unemployment rate among the young, and because of this it is tested for age squared as well.

3. Data and Method

To measure the effect of an economic crisis on political trust, I have chosen to do so in several steps. In the first table, I test how the macroeconomic variables impacts levels of political trust. This give answer to how economic performance affects political trust on a general basis, but also indications on how the financial crisis has affected political trust. If for example, an increase in unemployment correlates with reduced political trust,[16] this indicates that a country that has experienced increased unemployment, as a consequence of the economic crisis, would have citizens with reduced political trust. The second table employs the same macroeconomic measures, but in this table the effects of the *changes* in the variables are measured. In this way, it is possible to measure the *direct* effect of the economic crisis. The two tables combined will give answer to 1) if macroeconomic measures have an impact on political trust; and 2) if a change in the economic indicators, as a consequence of the crisis, has an effect on political trust. After conducting these tables I include an individual-level measure that reflect individual perception of the economic situation. The reason why I build the analysis this way, is that I am able to see how *macroeconomic* performance influence political trust, and, if the effect of macroeconomic performance related to the crisis reduces confidence, before I test how individual perception fits into this. The sample I have chosen to answer if economic performance has an effect on levels of trust includes data from three ESS rounds *before* the crisis and one *after* the crisis.[17] It is important to include as many rounds as possible, because this will catch a possible downwards spiral in political trust,[18] as mentioned in the introduction. ESS round 5, collected during the crisis, is necessary to control for the effect of the crisis.

In order to answer the research question, I employ a multilevel analysis of pooled data from the European Social Survey (ESS) covering 25 countries. I use data from four waves. See Table A1 in Appendix for country and country-years included. For each country, the ESS provides information on individual's social values, cultural norms and behavior patterns. Within each country, a representative sample of approximately 2,000 individuals is surveyed. The four surveys use the same questionnaire and methodology. European Social Survey uses professional interviewers and random sampling of data. Also, because it is used the same

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[16] When controlled for other variables.

[17] ESS Round 5: European Social Survey Round 5 Data 2010; ESS Round 4: European Social Survey Round 4 Data 2008; ESS Round 3: European Social Survey Round 3 Data 2006; ESS Round 2: European Social Survey Round 2 Data 2004; ESS Round 1: European Social Survey Round 1 Data 2002.

[18] The first round of European Social Survey is not possible to use because TRUST IN POLITICAL PARTIES, one of the components in the dependent variable, is not surveyed.

questionnaire and methodology across rounds, questions that have been problematic has been adjusted or removed. This constitutes to strengthening the reliability of the models.

The individual data are made available in an anonymous form by NSD,[19] and the data for the economic indicators are gathered from World Bank - World Development Indicators and IMF. Both World Bank and IMF are considered reliable sources, and I assume that the measures created with this data are of good quality, and therefore can be generalized across countries. Neither NSD, nor the World Bank, and IMF are responsible for the analysis or interpretations made in this thesis.

3.1 Model specifications

To study the financial crisis' effect on political trust, I will employ a multilevel modeling. This approach is advantageous since the data is of hierarchical structure, which means that some units of analysis are considered a subset of other units. In this case, individual respondents are considered a subset of countries. There are statistical reasons for using this approach. Because of shared history, experiences, environment etc., respondents from the same country are more similar than respondents from different countries. This shared context is a cause of dependency among observations (Ringdal no date; Steenbergen and Jones 2002: 220). By using OLS-regression to analyze this kind of data, one would violate the assumption of statistical independency, and this would lead to an inaccurate estimation of the standard errors. This would increase the chance to discard H_0, even if it is correct (Steenbergen and Jones 2002: 220). When using multilevel analysis we are able to account for variance in a dependent variable measured at the lowest level, by taking the higher levels into consideration (Ringdal no date; Steenbergen and Jones 2002: 219). In the multilevel analysis the respondents constitute level 1, the country-years level 2, and countries level 3, where the individuals become subgroups of the country-years, which are subgroups of the countries. A substantial reason for using multilevel analysis is that I am mainly interested in the effects of variables at the second level. By using another method I would not be able to measure these effects in a satisfactory way, since such variables cannot be assigned the individual level (*IBID*). By using a "Random intercept"-model, one can expect that the effect of the explanatory variables is the same in every sample, but that the intercept varies across the level-2 and level-3 units (*IBID*). According to Hox (2010: 233f) it is possible to use multilevel modeling as long as there are more than 30 groups on level-2. This analysis includes 93 country-years, and 25 countries. Level-2, the level where the economic measures are included, is of sufficient size.

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[19] Norwegian Social Science Data Services, http://www.nsd.uib.no/

I make a distinction between micro and macro explanatory variables. Several scholars (Lockerbie 1993; Weatherford 1987; Anderson and Guillory 1997; Taylor 1997; Miller and Listhaug 1999) have demonstrated the individual-level relationship between perceptions of government economic performance and levels of political support. According to Huseby (1999) it has been harder to demonstrate a direct relationship between indicators of real economy like unemployment and inflation, and perceptions of economic performance and political trust on an aggregated level. However, to measure the financial crisis effect on political trust, I see it necessary to focus mainly on real economic performance using unemployment, GDP per capita, GDP debt and GDP growth. To avoid Hauser's contextual fallacy,[20] it is also controlled for individual-level indicators.

3.2 The issue of causality

According to Ruscio (1996), one should always clearly state whether trust is dealt with as a dependent or independent variable, as "trust is a difficult issue because it is both cause and effect" (Ruscio 1996: 473). When running regressions, it is important to be aware of the fact that there is always a possibility that the left-hand side variable and the right-hand side variables influence each other. In this case, also that macroeconomic measures: GDP, growth, unemployment and debt are affected by a common event. There is also a possibility that these variables stand in a bidirectional relationship with political trust (Roth et al. 2011), for example, that decreased levels of political trust may exacerbate an already existing economic downturn. By lagging[21] all macro-economic measures one year for time-dependence,[22] I reduce the possibility for reverse causality. Also, another reason for lagging the variables is that individuals' attitudes do not change immediately after an increase or decrease happens, it takes time, and to be able to see an effect of the change in these macro-variables a one-year lag is necessary.

Bouckaert and Van de Walle (2001) claim that when doing research on trust, there are often theoretical reasons for both directions of influence, for example if satisfaction leads to trust, or if trust leads to satisfaction. Also, Huseby (2000) states that survey data on the relationship between evaluations of government performance and political support is incapable of establishing the direction of causality. It is uncertain whether citizens give negative

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[20] Hauser (1970) criticized the contextual analysis because he maintained that most alleged contextual effects lacked substance and were artifacts of inadequately specified individual-level models. The term contextual fallacy is used to describe this phenomenon (Ringdal no date)

[21] The exceptions are Croatia, Greece, Ireland and Ukraine where it is used 2010 levels instead of 2009, and for Ireland in 2007 it is used 2008 levels. This is due to data limitations.

[22] Meaning that previous years level on the economic indicators predicts the current value of political trust.

responses to questions on government performance because they do not trust government, or if they loose faith in government because they evaluate the economic performance as poor (Huseby 2000). For this reason, one ought to be careful using attitude variables as control variables, when an attitude measure is also used as the dependent variable. For this reason I am careful about generalizing findings from the models using the individual variable measuring individual's perception of the economic situation. In addition to this measure, I have two attitude measures on the individual level, political interest and a measure on political participation, which may be problematic. However, I rely on previous research from Cattenberg and Moreno (2005), Diven and Constantelos (2011) and Aardal (2003), who find that citizens that are engaged, and have high interest for politics, have higher levels of trust, and assume that the causal relationship used is correct.

3.3 Operationalization of Political Trust

The dependent variable POLITICAL TRUST is a scale computed from three variables in the European Social Survey, in which I assume measures this phenomenon. The original variables are TRUST IN COUNTRY'S PARLIAMENT, TRUST IN POLITICIANS and TRUST IN POLITICAL PARTIES. The respondents were asked the following question:

> Using this card, please tell me on a score of 0-10 how much you personally trust each of the
> institutions I read out. 0 means you do not trust an institution at all, and 10 means you have
> complete trust. [Country]'s parliament?

The same question was used to ask the respondents about trust in politicians and trust in political parties. A factor analysis is done to understand the structure and correlation between a given set of variables. The two main types are exploratory and confirmatory. In this thesis, I use exploratory factor analysis, as I have no *a priori* assumptions on the number of factors present in my set of variables (Ulleberg and Nordvik 2003). By applying this approach, one assumes that the observed variables are linear combinations of underlying factors, which best describe observed covariance between variables. The method of extraction of factors used is a principal component analysis.[23] The principal component analysis, see Appendix B, illustrates that there are four components drawn from the included variables. The three measures TRUST IN POLITICAL PARTIES, TRUST IN POLITICIANS and TRUST IN COUNTRY'S PARLIAMENT have a single underlying construct or factor. There are several other measures that score high on this

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[23] It differs from factor analysis in that it seeks to explain all of the variance in each variable, instead of just the common factor if the *N* is large. The difference between these two methods is small, and the name factor analysis is also used with regards to principal component analysis (Ulleberg and Nordvik 2001).

factor, but because I use Norris' (1999) conceptualization of trust, I include only these three variables as they measure trust in political institutions. By including TRUST IN LEGAL SYSTEM and TRUST IN THE POLICE, the scale would measure *institutional* trust instead of *political* trust. SATISFIED WITH NATIONAL GOVERNMENT is excluded because it measures satisfaction with parties or party coalitions, which is not a political institution. Also HOW SATISFIED WITH THE WAY DEMOCRACY WORKS IN COUNTRY and HOW SATISFIED WITH PRESENT STATE OF ECONOMY have high scores on this component, but they do not capture trust in political institutions, so they are not included in the scale.

A Chronbach's alpha test on the three variables has also been conducted. Chronbach's alpha is a measure on reliability, and a function of the correlation between the variables tested for. A merged measure has a satisfactory reliability if Chronbach's Alpha is greater than 0.7 (Ringdal 2013: 358). In this case Chronbach's alpha is 0.911, see Table B3. One may discuss if this is too high, when reliability higher than 0.8, often is considered to be too high (Nunnally 1978: 245). The high correlation may be caused by the fact that the questions asked to the respondents, are almost identical and asked coherent. This can make the questions hard to distinguish. The measure would have been more reliable if each measure included several questions on each subject, like for example three to five sub-questions. The high value indicates that the variables measure the same phenomenon. Still, it is a possibility that some respondents have been able to distinguish between the questions, and therefore the scale is considered more valid than the one of the three variables by them selves[24]. The variable is scaled from 0 to 30, where 0 means no trust at all, and 30 means complete trust. Political trust is a normally distributed variable. It's necessary that the dependent variable is as normally distributed as possible, if not, it could create imprecise standard errors, and one would have to consider using robust standard errors.

Table 6: Descriptive statistics: POLITICAL TRUST

	N	Min.	Max.	Mean	Std. deviation
Political trust	149,640	0	30	10.100	6.708

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[24] Since there are no other measures on political trust in the dataset, the created scale is used despite this possible problem.

3.4 Included macroeconomic measures

At the country-year level I have included four variables, all of which are economic indicators on the state of economy in a country. The data for these measures are gathered from *World Bank* and *IMF*. Included in the sample are many different economies, which can be affected by the crisis in different ways. Therefore by including four different economic indicators, I am able to capture as many aspects of the crisis as possible.

The four indicators, which are lagged one-year, are GDP PER CAPITA, GDP GROWTH, GDP GROSS DEBT and UNEMPLOYMENT. GDP PER CAPITA is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes, and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in constant 2000 U.S. dollars[25] (World Bank 2013c), and divided on 1000. It is however possible to log transform it, but the distribution, is better if it is divided on 1000[26]. A possible reason for this is that the countries in Europe are more alike, compared to when sampling for example the whole world. GDP GROWTH is the annual percentage growth rate of GDP per capita based on constant local currency (World Bank 2013a). GDP GROSS DEBT consists of all liabilities that require payment or payments of interest and/or principal by the debtor to the creditor at a date or dates in the future. This includes debt liabilities in the form of Special Drawing Rights' (SDR),[27] currency and deposits, debt securities, loans, insurance, pensions and standardized guarantee schemes, and other accounts payable (IMF 2013). UNEMPLOYMENT is measured in percent of total labor force, and refers to the share of the labor force that is without work but available for and seeking employment[28] (World Bank 2013b).

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[25] Dollar figures for GDP are converted from domestic currencies using 2000 official exchange rates. For a few countries where the official exchange rate does not reflect the rate effectively applied to actual foreign exchange transactions, an alternative conversion factor is used.

[26] If dividing the measure on 1000, skewness is .467 and kurtosis is 2.763. If log transforming it, skewness is –1.121 and kurtosis is 4.113.

[27] For more information on SDR see http://www.imf.org/external/np/exr/facts/sdr.htm

[28] Definitions of labor force and unemployment differ by country.

Figure 5: Expected effect of the financial crisis on political trust
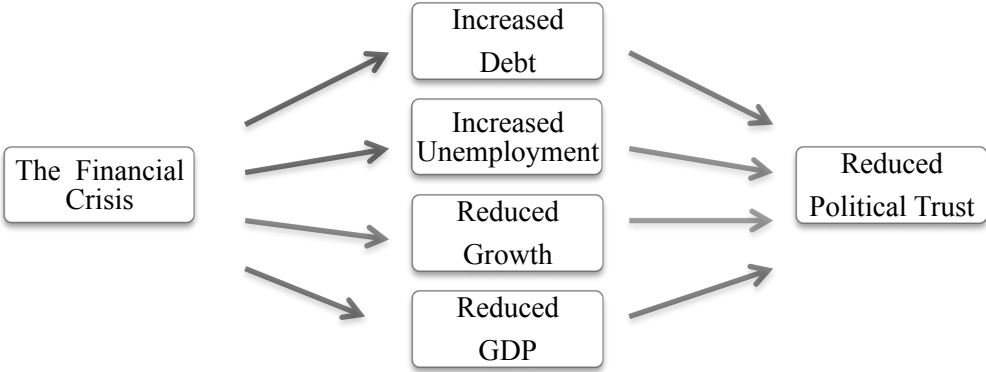
For these indicators two versions are created. In the first model where I use GDP PER CAPITA LEVEL, GDP GROWTH LEVEL, GDP GROSS DEBT LEVEL and UNEMPLOYMENT LEVEL I measure the *level* of the economic measures and its correlation with POLITICAL TRUST. For the second model where I examine the *change*, the economic indicators measure the change in these indicators from a given survey-year to the next. The value for a given survey-year is created by taking the value for current survey-year subtracted by the value for previous survey year. A significant effect of these measures will indicate that the financial crisis has in fact reduced people's trust in political institutions.

The variables ESS2, ESS3 and ESS4 are dummy variables that compare trust-levels in 2004, 2006 and 2008 to ESS5 - 2010. Round 4, that is conducted before the end of 2008 is considered a measure before the crisis because of the lagging-effect mentioned above. This justifies the use of the ESS4 (2008) data as a before-crisis measure. ESS5 (2010) is collected during the year of 2010, and are therefore used to measure the effect during a crisis.

Table 7: Descriptive statistics: independent variables at the country-year level

	N	Min.	Max.	Mean	Mean (%)	Std. dev
2004	147,256	0	1		22.00	.41
2006	147,256	0	1		22.90	.42
2008	147,256	0	1		27.30	.45
2010	147,256	0	1		27.90	.45
GDP per capita level [b]	147,256	1.05	83.56	28.94		17.78
Unemployment level[a]	147,256	2.50	19.60	7.89		3.29
GDP gross debt level	147,256	3.70	129.70	50.18		25.10
GDP growth change[a]	147,256	-21.56	5.20	-1.86		5.05
GDP per capita change[b]	147,256	-13.70	17.80	3.70		4.89
Unemployment change[a]	147,256	-8.10	9.7	.20		2.39
GDP gross debt change	147,256	-17.00	47.7	1.57		10.02

[a] measure is presented in yearly numbers in percentages [b] the measure is presented in constant 2000 US$ and divided by 1000.

3.5 Included variables at the individual level

At the individual level I have included measures on political interest, political participation - if the respondent voted last national election, personal employment situation, and the following demographic variables; FEELING ABOUT HOUSEHOLD'S INCOME, EDUCATION, WOMAN, AGE and AGE SQUARED. Also, as much previous research has indicated the importance of individual perception of economic situation, I have included a measure for this as well. HOW SATISFIED WITH PRESENT STATE OF ECONOMY IN COUNTRY, is scaled from 0 to 10, where 0 means extremely dissatisfied and 10 means extremely satisfied.

POLITICAL INTEREST is measured by the question "how interested would you say you are in politics" and the answer categories have been recoded to 1, "not at all interested"; 2, "hardly interested"; 3, "quite interested" and 4, "very interested". It is expected that high interest in politics generate higher trust levels. Political activity is included by a dummy variable, VOTED LAST NATIONAL ELECTION, which indicates whether the responded voted (1) or not (0). The variable measures electoral participation, and does not capture all forms of political participation, but it is assumed to be good enough as a control variable. The variable UNEMPLOYED measure employment situation. It is a dummy variable comparing those that are unemployed and looking for a job with those that are either employed, unemployed not looking for a job, those that are under education or community or military service, or permanently sick or disabled, retired, homemakers and others. The measure has a total of 5922 unemployed respondents or about 3.96 percent, and 143,718 (96,04 percent) in the reference category. It is expected that those who are unemployed and looking for a job have less trust compared to the reference category.

FEELING ABOUT HOUSEHOLD INCOME[29] is a subjective measure, controlling for individual's perception of the households economic situation. For this purpose, the individual's perceptions may be just as good as the actual economic situation. The variable have four categories where 1, "Very difficult on present income"; 2, "Difficult on present income"; 3, "Coping on present income" and 4, "Living comfortably on present income". EDUCATION measures years of full-time education completed. The scale has a range from 0 to 56. EDUYRS is not the best indicator of educational attainment in the ESS. One of the reasons for this is that it may have problematic high values. In this case, number of respondents is regarded to be high

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[29] Originally I wanted to include a measure on the individual's income, but there is no such measure in the dataset. An alternative would have been a measure for household total net income, but because ESS has for rounds 2 and 3, deployed standard categories, an approach they departed in round 4 and 5 because a standard income variable for all countries was insufficient in dealing with diverse national income distribution. This makes it difficult to harmonize the two measures on household income without a great amount of recoding's.

enough, and therefore it is not likely that respondents with problematic high values will influence the results.[30] Gender is a dummy variable named WOMAN, where value 1 is for women and 0 is for men. Age is measured in years, and in order to capture the high unemployment among young people, I have also included a squared age variable.[31] It is possible to use a centered version of age (Hox 2010: 68f), but this is not done in this analysis.

Table 8: Descriptive statistics: independent variables at the individual-level

	N	Min.	Max.	Mean	Mean (%)	Std. dev
How satisfied with present state of economy in country	149,640	0	10	4.23		2.52
Political interest	149,640	0	3	1.41		.89
Voted last national election[a]	149,640	0	1		78.30	.41
Unemployed[b]	149,640	0	1		3.97	.20
Feeling about household income	149,640	0	3	1.88		.90
Education[c]	149,640	0	56	12.24		4.09
Woman[d]	149,640	0	1		53.78	.50
Age	149,640	14	123	49.47		17.49
Age squared	149,640	196	15,129	2,750.907		1,801.00

[a] reference category did not vote last national election, [b] reference category employed, unemployed not looking for a job, permanently sick or disabled, retired, homemakers under education, community or military service and others, [c] reference category men, [d] reference category 2010.

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[30] An alternative variable is EISCED, a measure that categorizes education levels, but because this variable results in 367 missing and 44,742 respondents not possible to harmonize into the variable, I have chosen to use EDUYRS.
[31] Another possibility would have been to test for this using cohorts, but because this uses many d.f. I choose to use a squared version of age.

4. Results

In this chapter I present the results. The first section, section 4.1, analyses the correlation between *level* or *degree* of growth, GDP, unemployment, debt and political trust. This model gives an answer to how the correlation between economic performance and political trust is. In the second section, I control for the effect of a *change* in these indicators and its effect on trust. This section investigates how the financial crisis has affected citizen's trust. Also, because it is reason to believe that *perception* of economic performance is as important as economic performance itself, it is included a section studying the relationship between *perceptions* of economic performance and the actual economic performance. As will be discussed, there are some problems with including the measure HOW SATISFIED WITH PRESENT STATE OF ECONOMY IN COUNTRY. To begin, the individual-level variable scores high on the same component as political trust, and second, the measure also correlates to some degree with the macroeconomic measures. Because of this I am cautious when generalizing the findings from this section.

In the analysis I have 149,640 individuals, 93 country-years, and 25 countries in both Table 9 and 10. For the tables in section 4.3 I have 147,256 individuals from 25 countries for four years. A large sample like this makes me able to include several variables at level-2 without having to worry about biased results (Hox 2010: 233f). I use a random intercept version of multilevel analysis. When using a random intercept model one assume that the effects of the variables are the same, meaning that the regression lines have the same slope, but that the intercept varies between the level-2 and, in this case, level-3 units (Hox 2010; Strabac 2007: 184).

The analysis follows a bottom-up structure, starting with a simple model, and then adding complexities. According to Hox (2010: 55f) this is a more useful method compared to a top-down approach, which may lead to convergence problems due to starting with a large, complicated model. I start by estimating an empty model[32], which is a model with no regressors. The empty model can be formally defined as:

$$\gamma_{ijk} = \beta_0 + e_{ijk} + u_{0jk} + v_{0k}$$

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[32] This is not included in the table.

Where β_0 is the constant, e represents the level-1 residual, u and v represents the level-2 and level-3 residuals. The subscript i vary across level-1 units (individuals), while j varies across the level-2 units (country-year), and k varies across level-3 units (country). This model is useful to determine the proportion of POLITICAL TRUST on the various levels of analysis. The Variance Partition Coefficient (VPC) illustrates how the variance in POLITICAL TRUST is divided between each level in the analysis (Ringdal no date). For Table 9 and 10, 20.2 percent of the variance in political trust exists between countries, while 3.9 percent exists between country-years. This indicates that most of the variance in political trust exists between individuals. The variation between country-years is not that high, but the level is still regarded as necessary, because of the structure of the dataset.

4.1 How does macroeconomic indicators affect political trust?

Model 1 in Table 9, includes all the individual-level variables. This is done to avoid Hauser's contextual fallacy and to find out how much of the variance between country-years that is explained by compositional effects. In Model 2, I have added the time-control variables, and in Model 3 through 6 I have added the macro-level variables one by one. This is regarded as necessary because the macro-variables may affect one another as well as the dependent variable, in addition to the fact that they measure different aspects of the same phenomenon.[33] The last model, Model 7, is the most complex model, which includes all the individual-level variables as well as the macroeconomic measures together. The full model, Model 7 presented as equation:

$$Y_{ijk} = \beta_0 + \beta_1 X_{1ijk} + \beta_2 X_{2ijk} + \beta_3 X_{3ijk} + \beta_4 X_{4ijk} + \beta_5 X_{5ijk} + \beta_6 X_{6ijk} + \beta_7 X_{7ijk}$$
$$+ \beta_8 X_{8ijk} + \beta_9 X_{9ijk} + \beta_{10} X_{10jk} + \beta_{11} X_{11jk} + \beta_{12} X_{12jk} + \beta_{13} X_{13jk} + \beta_{14} X_{14jk+} +$$
$$\beta_{15} X_{15k} + e_{ijk} + u_{0jk} + v_{0k}$$

Where $\beta_1, \beta_2 ... \beta_n$ is the slope for level-1 and level-2 variables $X_{1ijk}, X_{2ijk}, X_{nijk}$

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[33] To make sure this does not affect the results, it is tested for multicollinearity. The results from this test indicate that none of the variables correlate in a way that makes the results affected.

Table 9: Random intercept model with three levels: individual, country-year and country. Dependent variable: POLITICAL TRUST

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	9.595***	9.133***	9.518***	5.739***	10.87***	10.26***	7.870***
	(.548)	(.580)	(.628)	(.647)	(.753)	(.937)	(.940)
Level-1							
Political interest	1.329***	1.329***	1.329***	1.328***	1.329***	1.329***	1.328***
	(.018)	(.018)	(.018)	(.018)	(.018)	(.018)	(.018)
Voted last national election[a]	1.427***	1.427***	1.428***	1.428***	1.427***	1.427***	1.428***
	(.039)	(.039)	(.039)	(.039)	(.039)	(.039)	(.039)
Unemployed[b]	-.429***	-.428***	-.428***	-.428***	-.427***	-.428***	-.428***
	(.077)	(.077)	(.077)	(.077)	(.077)	(.077)	(.077)
Feeling about household's income nowadays	.570***	.570***	.570***	.569***	.570***	.570***	.569***
	(.020)	(.020)	(.020)	(.020)	(.020)	(.020)	(.020)
Education	.027***	.027***	.027***	.027***	.027***	.027***	.027***
	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Woman[c]	.329***	.329***	.329***	.329***	.329***	.329***	.329***
	(.030)	(.030)	(.030)	(.030)	(.030)	(.030)	(.030)
Age	-.141***	-.141***	-.141***	-.141***	-.141***	-.141***	-.141***
	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)
Age squared	.001***	.001***	.001***	.001***	.001***	.001***	.001***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Time control							
2004[d]		.789**	.113	1.908***	.699**	.640*	1.128**
		(.358)	(.502)	(.397)	(.348)	(.360)	(.502)
2006[d]		.738**	.002	1.306***	.626*	.593*	.457
		(.352)	(.522)	(.365)	(.343)	(.354)	(.513)
2008[d]		.426	-.371	.281	-.035	.231	-.840
		(.337)	(.539)	(.343)	(.356)	(.350)	(.543)
Level-2							
GDP growth level			.094*				.087*
			(.051)				(.050)
GDP per capita level[e]				.109***			.107***
				(.016)			(.017)
Unemployment level					-.200***		-.114*
					(.062)		(.063)
GDP gross debt level						-.021	-.013
						(.013)	(.011)
Random part							
Var (e_{ijk})	32.223	32.223	32.223	32.223	32.223	32.223	32.223
	(.118)	(.118)	(.118)	(.118)	(.118)	(.118)	(.118)
Var (u_{0jk})	1.524	1.400	1.304	1.441	1.309	1.317	1.272
	(.265)	(.244)	(.228)	(.252)	(.230)	(.232)	(.224)
Var (v_{0k})	6.669	6.580	7.039	2.051	5.266	(7.133)	1.890
	(2.013)	(1.977)	(2.114)	(.710)	(1.633)	(2.189)	(.659)
Log Likelihood	-472393	-472390	-472388	-472378	-472385	-472388	-472372
	10827***	6.13	9.36*	24.16***	15.92**	8.35*	40.85***
-2LL change			3.23*	30.29***	9.78**	2.22	34.71***

[a] dummy variable with reference category did not vote last national election, [b] dummy variable with reference category employed, unemployed not looking for a job, permanently sick or disabled, retired, homemakers, under education, community or military service and others, [c] dummy variable with reference category men, [d] dummy variables with reference category 2010, [e] The variable is divided by 1000, Level-1 *N*: 25, Level 2 *N:* 93 Level-3 *N*: 149,640, Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, Model 3 - 6 is tested against both Model 1 and 2, also -2LL change for Model 7 is tested against Model 3: 31.49***, Model 4: 10.55**, Model 5: 24.93*** and Model 6: 32.49***

In Model 7, all the level-1 variables are significant. First, high political interest generates high trust levels, and second, citizens who participate politically, by voting in national elections, have higher levels of political trust. The results of UNEMPLOYED indicates that citizens without work, but who are looking for a job, have less trust in political institutions compared to people who are either employed, unemployed, and not looking for a job, permanently sick, or disabled, under education, community, or military service. The demographic variables education, gender and age also seem to influence the degree of political trust. Increased years of education increase trust, and women have higher levels of trust compared to men. FEELING ABOUT HOUSEHOLD INCOME NOWADAYS has a positive correlation with POLITICAL TRUST, indicating that respondents that are living comfortably on present income have higher levels of political trust compared to respondents feeling that it is very difficult living on present income.

I expected the effect of age to decrease up to around 30 years, do to the high unemployment among young in many of European countries. However, this is not the effect I am finding, level of trust is decreasing to the age of 70.5 for then to start increasing again. The effect of age is illustrated in Figure A9 in Appendix. The effects of the demographic variables AGE, WOMAN and EDUCATION are constant in all models, meaning that they are not correlating with the macro variables. When including unemployment in Model 5,[34] the effect of being unemployed decreases, indicating that when these macroeconomic variables are not included, the effects of these are partially shown through the measure UNEMPLOYED.[35] The same effect can be seen with FEELING ABOUT HOUSEHOLD'S INCOME NOWADAYS and POLITICAL INTEREST when controlled for GDP in Model 4 and Model 7. Both measures are reduced by .001, a small change, but indicate a confounder effect. Even if this is the case, the level-1 variables are not changing in a severe way through the different models.

The time control variables 2004, 2006, and 2008 measures levels of trust in these years compared to 2010. It shows the unexplained variance in political trust when controlling for the other micro- and macro variables. The effect for 2004 indicates in each of the models, that the trust level is higher in 2004 compared to 2010. The same effect manifests itself between 2006 and 2010 as well. For the comparison between 2008 and 2010 the effect varies when controlling for different measures. In Model 2, where none of the economic measures are included, as well as Model 4 and Model 6, the effect is positive, indicating that levels of trust

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[34] And also when including the dummy variables for time in model 2.
[35] This effect is called a confounder, or hidden variable, meaning that a third variable holds some of the effect of another *X*-variable and its effect on *Y*.

are higher in 2008. However, when controlling for growth level in Model 3 and unemployment level in Model 5, the effect indicates that trust-levels are lower in 2008 compared to 2010. In the final model, when all economic indicators are included, the dummy variable 2008, indicate that levels of trust are lower in 2008 compared to 2010. Meaning that the unexplained variance in Y, the variance not explained in the final model, gives increased trust from 2008 to 2010. The effect of the 2008 dummy variable fluctuates around zero and is not significant. Therefore, no conclusions can be drawn from this measure.

As mentioned before, the different economic measures are included one by one from Model 3 through 6 and together in Model 7. This is done to control if some of the measures have different effects alone, compared to when they are combined with other measures. It is also necessary to control for all the macro-variables together, because they are all measures of the crisis effect. From Model 3, where the level of GDP GROWTH is tested by itself, it is indicated that an increase in GDP GROWTH LEVEL increases POLITICAL TRUST. It has the same effect when controlled for together with the other economic indicators. This confirms that people trust governments more if they have shown a capacity to generate economic growth (Fiorina 1978; Mackuen et al. 1992), and confirms the hypothesis H_1: *A high positive GDP growth rate is associated with high level of political trust.*

In Model 4 it is controlled for the effect of GDP PER CAPITA. High levels of GDP are correlated with high levels of POLITICAL TRUST. From Model 7, the effect is the same, meaning that the higher level of GDP a country has, the higher the levels of political trust will be. GDP per capita gives a country's standard average of living, and can bee seen as an indicator on welfare. If GDP goes down, the standard average goes down as well, and naturally citizens trust and satisfaction in political institutions goes down. Hypothesis H_2: *A high level of GDP per capita leads to high levels of political trust* is confirmed.

In their study on confidence in political and private institutions Listhaug and Wiberg (1995) find that in many countries, where unemployment has increased, it has contributed to reduced support. Therefore, it is expected that high unemployment rate correlates with low levels of political trust. From Model 5 and Model 7 it is indicated that this assumption correct. UNEMPLOYMENT LEVEL has a negative correlation with POLITICAL TRUST. Hypothesis H_3: *A low level of unemployment is associated with high political trust*, is correct, and can be confirmed.

When GDP GROSS DEBT LEVEL is added as the only macroeconomic measure, it is indicated that an increase in gross debt in percent of GDP is correlating with low levels of political trust. The same is indicated from Model 7. However, the measure is not significant in

any of the models. One possibility for the lack of significance may be that GDP debt level only affects the trust in the COUNTRIES PARLIAMENT, because the citizens blame the government in charge for the economic situation. To test this I have conducted a sensitivity model where POLITICAL TRUST is replaced by one of the three scale components TRUST IN COUNTRIES PARLIAMENT.[36] The findings are the same as in the main table, that the level of GDP GROSS DEBT does not have any significance effect. However, as discussed in section 3.2, the three measures that together represent political trust, have a very high Chronbach's alpha, indicating that the three measures may be too similar. This may again produce the same results when testing each component alone. From this I am not able to confirm *H₄: High GDP debt in percent of GDP in a country will lead to a lower level of political trust.*

In the final model, where all the macroeconomic measures are included together, the effect on all of them becomes smaller, compared to when controlled for alone. This is because controlled for together, a larger number of degrees of freedom, in addition to the fact that they measure the same phenomenon - the economic situation in a country. To find the model that best explains the variation in political trust, the -2LL change test is used. From this, it is indicated that when adding GDP GROWTH, GDP PER CAPITA or UNEMPLOYMENT in Model 3, 4, and 5, the variance in POLITICAL TRUST is better explained if compared to the model where only individual level variables are included.[37] This indicates that the economic indicators explain the effect of an economic crisis better, compared to the time control variables. Model 7, where all the macroeconomic variables are controlled for together, explains more of the variance in political trust, compared to all previous models. When controlling for all the individual-level variables as well as the macroeconomic measures together, the variation in political trust is best explained. From this model, the indicators used, do not measure the economic crisis and its effect, but rather how the correlation between them and political trust is. This is also important to answer the research question, because it illustrates if economic performance has an effect on levels of POLITICAL TRUST. However, to be able to directly test the effect of an economic crisis on political trust, it is necessary to control for the change in the economic indicators. By creating new macro variables that measure change from one year to

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[36] When dividing the dependent variable, one sensitivity table is made for each of the three components; TRUST IN COUNTRY'S PARLIAMENT, TRUST IN POLITICIANS and TRUST IN POLITICAL PARTIES. These tables are shown in Table C3, C4 and C5. The results from illustrate that all macroeconomic measures have the same relationship with the dependent as they have with POLITICAL TRUST. All have a weaker correlation, but this is to be expected because it is more variation, better distribution, and therefore more to explain in POLITICAL TRUST compared to each component separated. In addition to this, the table when the dependent variable is TRUST IN POLITICAL PARTIES, growth level is no longer significant.

[37] They are also better if compared to if the time control variables are added.

the next, I am able to test if the changes the financial crisis has had on the economic measures, affects levels of trust. This is what I have done in the section beneath.

4.2 How does the financial crisis effect on macroeconomic measures affect political trust?

In this section the economic indicators measure, as mentioned above, the *change* in the variables from one year to the next. As a consequence of the crisis, many of these indicators have taken a turn to the worse. By measuring the *change,* this will be taken into account.

Because it is used the same sample and level-1 variables, the empty model, Model 1 and Model 2 are identical in both Table 9, and Table 10. Therefore they are not included in the table beneath. This indicates therefore that the effects of the individual-level variables are the same. Model 3 through 6 adds the macro measures one by one, like in the previous models. Also in this table, the last model is the most complex model, and includes all the individual-level variables and all the macroeconomic measures together. The full model in this table presented as equation:

$$Y_{ijk} = \beta_0 + \beta_1 X_{1ijk} + \beta_2 X_{2ijk} + \beta_3 X_{3ijk} + \beta_4 X_{4ijk} + \beta_5 X_{5ijk} + \beta_6 X_{6ijk} + \beta_7 X_{7ijk} +$$
$$\beta_8 X_{8ijk} + \beta_9 X_{9ijk} + \beta_{10} X_{10jk} + \beta_{11} X_{11jk} + \beta_{12} X_{12jk} + \beta_{13} X_{13jk} + \beta_{14} X_{14jk+} +$$
$$\beta_{15} X_{15k} + e_{ijk} + u_{0jk} + v_{0k}$$

Where $\beta_1, \beta_2 ... \beta_n$ is the slope for level-1 and level-2 variables $X_{1ijk}, X_{2ijk}, X_{nijk}$. I will start this section by commenting on what happens to the individual-level variables, when including these macroeconomic measures. This is followed by a discussion on the effects of the economic indicators. Last, I will look at the change in Log Likelihood to find out which of the models explain most of the variance in POLITICAL TRUST.

Table 10: Random intercept model with three levels: individual, country-year and country. Dependent variable: POLITICAL TRUST

	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	9.748***	9.177***	9.538***	9.484***	10.60***
	(.680)	(.574)	(.615)	(.608)	(.734)
Level-1					
Political interest	1.329***	1.329***	1.329***	1.329***	1.329***
	(.018)	(.018)	(.018)	(.018)	(.018)
Voted last national election[a]	1.428***	1.427***	1.427***	1.427***	1.428***
	(.039)	(.039)	(.039)	(.039)	(.039)
Unemployed[b]	-.428***	-.428***	-.427***	-.428***	-.427***
	(.077)	(.077)	(.077)	(.077)	(.077)
Feeling about household's income nowadays	.570***	.570***	.570***	.570***	.570***
	(.020)	(.020)	(.020)	(.020)	(.020)
Education	.027***	.027***	.027***	.027***	.027***
	(.004)	(.004)	(.004)	(.004)	(.004)
Woman[c]	.329***	.329***	.329***	.329***	.329***
	(.030)	(.030)	(.030)	(.030)	(.030)
Age	-.141***	-.141***	-.141***	-.141***	-.141***
	(.005)	(.005)	(.005)	(.005)	(.005)
Age squared	.001***	.001***	.001***	.001***	.001***
	(.000)	(.000)	(.000)	(.000)	(.000)
Time control					
2004[d]	.154	.563	.415	.424	-.939
	(.509)	(.468)	(.374)	(.398)	(.687)
2006[d]	.065	.536	.268	.280	-1.157*
	(.522)	(.444)	(.387)	(.419)	(.702)
2008[d]	-.247	.174	-.293	-.052	-1.675**
	(.512)	(.474)	(.439)	(.414)	(.732)
Level-2					
GDP Growth change	.074*				.103**
	(.043)				(.046)
GDP per Capita change[e]		.033			.041
		(.043)			(.043)
Unemployment change			-.183**		-.093
			(.076)		(.083)
GDP Gross Debt change				-.038*	-.038*
				(.020)	(.021)
Random part					
Var (e$_{ijk}$)	32.223	32.223	32.223	32.223	32.223
	(.118)	(.118)	(.118)	(.118)	(.118)
Var (u$_{0jk}$)	1.340	1.408	1.263	1.327	1.182
	(.234)	(.247)	(.221)	(.231)	(.209)
Var (v$_{0k}$)	6.601	6.309	7.055	6.618	6.557
	(1.978)	(1.936)	(2.111)	(1.983)	(2.006)
Log Likelihood	-472388	-472389	-472387	-472388	-472384
	9.03*	6.69	11.49**	9.65**	17.72**
-2LL change	2.90*	0.56	5.36**	3.51*	11.58**

[a] dummy variable with reference category did not vote last national election [b] dummy variable with reference category employed, unemployed not looking for a job, permanently sick or disabled, retired, homemakers under education, community or military service and others [c] dummy variable with reference category men [d] dummy variables with reference category 2010 [e] The variable is divided by 1000. Level-1 *N*: 25, Level 2 *N*: 93 Level-3 *N*: 149,640, Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1 Model 3 through 6 is tested against both Model 1 and 2, also -2LL change for Model 7 is tested against Model 3: 8.69**, Model 4: 11.03**, Model 5: 6.22 and Model 6: 8.07**

When controlling for UNEMPLOYMENT in Model 5, the effect of being unemployed decreases by .001, this indicates that when UNEMPLOYMENT CHANGE is not included, the effect of UNEMPLOYMENT CHANGE is partially shown through the measure UNEMPLOYED[38].

The time control measures in the final model show that after controlling for the measures included in Model 7, POLITICAL TRUST is lower in both 2006, and 2008, compared to 2010. This illustrates that the variance that is not taken into account indicates that political trust is higher in 2010, compared to both 2008 and 2006. The same difference is indicated between 2004 and 2010 as well, but this effect is not significant.

Two of the measures are significant in the final model: GROWTH CHANGE and DEBT CHANGE. From both model 3 and 7, GROWTH CHANGE has a positive correlation with political trust. This indicates that in countries where growth has decreased between 2008 and 2010, citizen's trust has also decreased. From Table 3, it is illustrated that all countries in the sample have experienced a negative change in GROWTH between 2008 and 2010. This is in line with the hypothesis *H6: A decreased GDP growth rate, as a consequence of the financial crisis, will reduce citizens' political trust.* Therefore, the hypothesis can be confirmed. The effect of GROWTH CHANGE in Model 7, where the measure is combined with the other macro measures, is stronger and more significant. This will be discussed further later in this section.

From Model 6, it is indicated that an increase in debt results in lower political trust. This is as expected from hypothesis *H7: An increase in GDP gross debt leads to reduced political trust.* The effect is unchanged when controlling for all economic indicators together.[39] The hypothesis can therefore be confirmed. There is evidence that suggest that the change in debt decreases citizens political trust, and also that the financial crisis has, through increased debt-levels in many European countries, reduced levels of trust in political institutions.

The effect of a change in GDP from Model 4, indicate a positive effect, as expected, meaning that a positive change generates higher trust. The effect is the same in Model 7, but since the effect is not significant in either of the models hypothesis *H5: A decrease in GDP per capita will result in reduced political trust,* cannot be confirmed.

UNEMPLOYMENT CHANGE indicates that a decrease in unemployment will give increased political trust, which is consistent with the hypothesis *H8: Increase in unemployment reduces citizen's political trust.* However, when controlling for unemployment together with the other economic indicators, the effect of the measure is reduced, and no longer significant.

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[38] The same happens to the effect of VOTED LAST NATIONAL ELECTION when including GROWTH CHANGE.
[39] This indicates that this measure doesn't correlate with the other economic measures.

It is a possibility that the reason why *change* in GDP and unemployment is not significant is because the data used to measure the effect is to close to the crisis to have an effect. It is a known phenomenon that unemployment moves counter-cyclical with GDP and is a lagging indicator. Research on this has been found to suggest that unemployment drags the gross domestic product by about two quarters (Brandal 2012). Therefore, since GDP CHANGE is not significant, this may be the reason why UNEMPLOYMENT is not in the final model either. It is only used data for one year when the countries are experiencing a crisis, 2010, which may be to soon after the crisis to get significant results. Even though the results aren't significant, the effect of the two measures is as expected. In 2010, unemployment levels, as a consequence of the financial crisis, have not reached its highest level yet. Unemployment levels per March 2013 show that 18 of the 25 countries are experiencing higher unemployment today, compared to the levels used in this data, see Table A2. For Spain, the unemployment rate is 27.20 percent, which is an increase on about 9.80 percent, compared to the level in 2010. For Greece unemployment rate today is 27.20 compared to 12.5 in 2010. Cyprus has three times as high unemployment, while for Bulgaria, Croatia and Netherlands the unemployment is doubled, and several other countries have also experienced severe increase compared to 2010. This effect I am not able to control for here. If unemployment lags behind GDP per capita with about two quarters, and it also takes time before this affects the levels of political trust, it may still be years before it is possible to find this effect in the data.

However, because it is significant when controlled for alone, another possibility may be that that the effect of unemployment is shown through the other economic indicators. As mentioned before, GROWTH CHANGE increases when included in the final model. It may be that the effect of unemployment is shown through this measure in the final model. The measures are, as mentioned before, indicators on the economic situation in a country, and therefore this is a possible explanation.

When including economic indicators to the regression the variance in POLITICAL TRUST is better explained compared when controlling for only individual-level measures.[40] This is true for all economic variables *alone* (except GDP per capita change), and also when controlling for all the economic measures *together* in Model 7. When comparing the final model to Model 3 through 6, the -2LL change test indicates that this model is better, compared to the models where each macro variable is included alone. One exception to this is Model 5, where UNEMPLOYMENT is tested by it selves. From this it is indicated that UNEMPLOYMENT, when

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[40] And also when it is included time control variables as well in Model 2.

included as the only macroeconomic measure, explains political trust, just as good as Model 7. This indicates that *H₈: Increase in unemployment reduces citizen's political trust,* is true.

To summarize, by including measures on economic performance, political trust is better explained, compared to when they're not included. Also, from this it is evidence that suggest that the financial crisis have had an impact on citizen's confidence in political institutions.

4.3 The relationship between actual economic performance and individual perception of economic performance

According to Dalton (2004) evidence suggests individual's *perception* of state of the economy may be just as important at as the *actual* situation in the economy. From the two previous tables, it is indicated that citizens have *information* about the state of the economy. If for example level of unemployment had increased and nobody except those who was affected by the increase, was aware of it, level of unemployment probably wouldn't have had a significant effect on political trust. The same can be said for the effect of both level of growth and GDP. It is therefore good reason to believe that individuals' perceptions of the economic situation are important for their level of trust. In this section I have therefore added, to the two previous tables, a measure for individual's satisfaction with the economy.

This measure is not included in the two previous tables for three reasons. The first reason is that individual's perceptions will, at least partially, be affected by the actual economic situation. This means that this individual measure will be affected by both the *level* of and *change* in the macroeconomic indicators. The second reason for not including it in the main models is that the measure correlates, to some degree, with POLITICAL TRUST, and scores high on the same component. For results from the principal component analysis see Appendix B. The third reason for not including this measure in the tables above is that, even though there are theoretical reasons for including it, it may contain errors that I am not able to control for. It is for example a possibility that this measure contains not only perception of the economic situation, but also perception of the state of health services or other similar questions regarding attitudes. One should always be careful including an attitude measure as independent variable, when studying an attitude. However, the causal relationship, if including individuals perceptions on the economic situation, is expected to be as followed:

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Figure 6: Including individual perception to the theoretical relationship
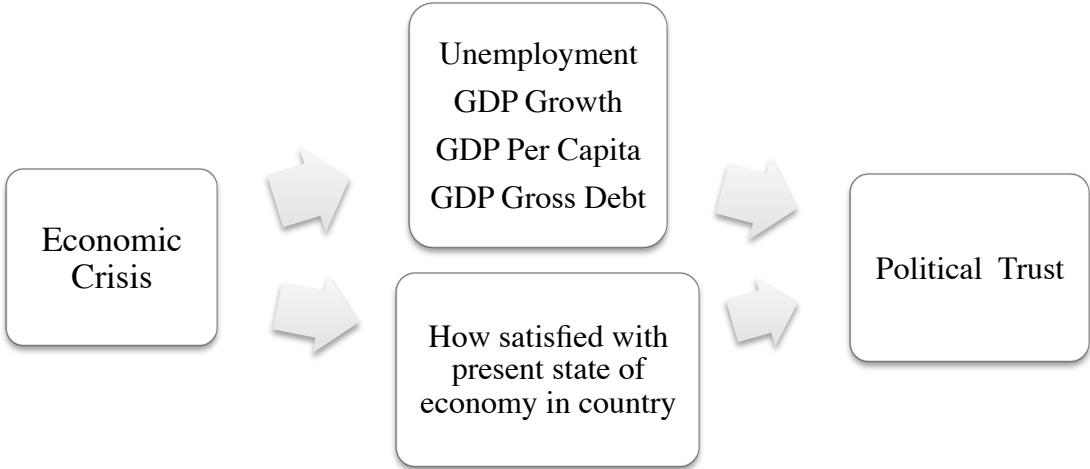
Tables A4 and A5, included in the appendix indicate that several of the economic indicators correlate[41] with the variable measuring individual's perception.[42] It is therefore good reason to test the effect of economic performance the way I have done, by first controlling for *level* and *change* in macroeconomic measure alone in Table 9 and 10, for then to add the measure on individual perception.[43]

As can be seen in Table C1 and C2, the individual-level variable is significant and indicating that personal perception of the state in the economy is an important component in level of political trust. The measure indicates, as expected, that the more satisfied citizens are with the state of the economy, the higher political trust he or she has. The results from this model also illustrate, as expected, that when including this measure, only one of the macroeconomic measures has a significant effect. It can be argued that this is because individual's perception about the state of the economy is formed by the actual situation. If this

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[41] Both GDP LEVEL and GDP CHANGE have a high positive correlation with perceptions of the national economy in a country, where *level* of GDP, correlates a bit stronger, compared to *change* in GDP. This is in thread with the results from Table 9 and 10. Also, the correlation between UNEMPLOYMENT LEVEL and HOW SATISFIED WITH PRESENT STATE OF ECONOMY IN COUNTRY is stronger than the correlation between UNEMPLOYMENT CHANGE and this measure. This is also what Table 9 and 10 illustrate. The correlation coefficient between HOW SATISFIED WITH PRESENT STATE OF ECONOMY IN COUNTRY and GROWTH LEVEL indicates that it is a very weak correlation between these two measures. The same can be said when looking at GROWTH CHANGE, only this indicates some stronger correlation. DEBT CHANGE has a stronger correlation with perception of national economy compared to DEBT LEVEL, but in both cases, the correlation is weak.

[42] To test the correlation between the macroeconomic measures and HOW SATISFIED WITH PRESENT STATE OF ECONOMY IN COUNTRY, the individual measure is aggregated. When aggregating, I subtract the mean value of how satisfied the individuals with the state of the economy in a country-year. This is done to test the correlation between the variables on the same level.

[43] Tolerance values are also tested see Tables A6 and A7 From this it is indicated that it is not a problem with multicollinearity when controlling for both the individual-level measure, and the macroeconomic measures together.

is correct, the measure HOW SATISFIED WITH PRESENT STATE OF ECONOMY IN COUNTRY will be affected by how the macro-level indicators change. Therefore, when this measure is controlled for, the effects of the different macroeconomic indicators may be visible only through this variable.

There are reasons to be careful when concluding on basis of this measure because of previously mentioned problems,[44] however, the results support Dalton's (2004) findings that individual perception of economic situation is an important factor in citizen's political trust. They may also be more important than the macroeconomic measures and the actual situation.

4.4 Testing for the effect of inflation

As a sensitivity analysis, INFLATION is also included as a macro-variable. From previously discussed research (Nannestad and Paldam 1994; Roth et al 2011), inflation has been indicated to be of importance to levels of trust. INFLATION, a rise in the overall level of prices, is measured by the consumer price index and reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly.[45] I have tested the effect of INFLATION LEVEL, as well as *change* in INFLATION rate. In the first model, where level of inflation is measured, it is coded into a dummy variable using countries inflation target.[46] Values close to the countries inflation target (+/- 1 percent) are given the value 0, and inflation/deflation outside this interval is coded to 1. By doing this, inflation (or deflation in some cases) *above* or *below* the acceptable level, will be compared to an acceptable degree of inflation. A concern with measuring inflation through a dummy variable is that the amount of variation in the measure is small. Inflation targets are very similar in most countries, and identical in the Euro zone. Therefore, I am not able measure inflation in a satisfactory way, and it is only included as a sensitivity model. For the second table the change in inflation from a given year to the next is measured.

Table A3 illustrates that seven of the 25 countries have experienced deflation, or falling prices, which is the opposite of inflation. Today, wages are dropping in Europe, as unemployment rises, which may bring a reduction in the price of important items in the consumer price index (CPI), which is used to measure inflation. During a recession and a depression, the greatest threat is deflation (or disinflation), and not inflation. This is what is

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[44] Because the variable scores high on the dependent variable, it is natural that it also gives strong effects when included in a regression model.
[45] The Laspeyres formula is generally used.
[46] For the countries in the European Union, the European Central Bank has sat an inflation target at 1.9 percent (European Central Bank no date and Atkins 2011). Norway has a target at 2.5 percent (Norges Bank 2001), Russia 5 – 6 percent, Ukraine 7.9 and for the other countries not included in the EU, the target is around 2 percent.

happening in the seven countries mentioned above. Also, inflation much higher than the target will probably reduce citizen's trust because this indicates that the government is not working properly (Nannestad and Paldam 1994).

From Table C4 and C5, when inflation is added to both the level and change models, I find that level of inflation does not have a significant effect, while the change in inflation does. In Table C4, where INFLATION LEVEL is included, there are indications that an inflation rate with a deviation higher than one percent from inflation target correlates with lower levels of political trust. However, this is not significant, and it is not possible to conclude that *level* of inflation has an impact on levels of trust. When controlling for a change in inflation rate in Table C5, the significant results indicate that a change in inflation will decrease levels of trust. However, because both low and high levels of inflation will be regarded as negative, it is hard to make conclusions on the effects of inflation on political trust.

5. Discussion

The findings suggest that there is evidence that economic performance does affect political trust. It is possible to assume that when the economy is working well, levels of political trust are higher, compared to when the economy is weak. From the tables in chapter 2.6, it is evidence that many of the countries have experienced a negative shift in the economy. However, from the models testing *level*, it is not possible to draw inferences about the recent economic crisis and its impact on trust. The second table is included to test directly *if* the crisis has reduced people's political trust. From this table evidence suggests, that in countries affected by the crisis, citizens' confidence is reduced.

When comparing the findings from Table 9 and 10, some interesting effects become visible. First of all, GDP growth rate, which is often used to assess the performance of the economy from year to year, does affect political trust. These findings suggest that low or reduced economic growth contributes to a lower political trust. It is therefore possible to conclude that citizens in countries that have experienced *negative* or *reduced* growth in GDP, as a consequence of the crisis, will have lower confidence.

Second, when an economy is affected like many economies have been because of the financial crisis, output gets below its natural level. This is illustrated in Table 2. One would assume that reduced GDP, which is a consequence of the financial crisis, would affect the degree of political support. The results suggest that a country's GDP is important for degree of political trust, but that a change in GDP, doesn't affect levels of trust. This indicates that citizens living in countries with high GDP have higher trust in political institutions, compared to countries with low GDP. This is probably because these countries have higher standards of living, and citizens are more satisfied with their life situation in general, which also will be reflected through higher levels of trust. However, the impact the financial crisis has had on GDP between 2008 and 2010 does not seem to have reduced the citizen's trust.

Third, is indicated that the higher the unemployment rate, the higher level of trust. This means that unemployment affect confidence. However, I find two different results when testing for if the financial crisis' effect on unemployment, has affected political trust. When controlling for the *change* in unemployment as the only economic indicator in the model, the results indicate that the financial crisis has had an effect on political trust. However, unemployment can not be said to affect confidence when including debt, GDP and growth together with unemployment. I assumed that the change in unemployment between 2008 and 2010 would have a strong and significant effect, as unemployment rates have increased severely in the

aftermath of the crisis. Still, as discussed above, to little time may have passed between when the crisis occurred, to when the data where collected, meaning it is to early to see if unemployment have affected levels of trust. Also, unemployment has a direct effect on the welfare of the unemployed, but not necessarily on employed citizens. A possibility is that countries that have not been as severely affected by the crisis, like for example Greece and Spain, "disturb" the effect of the measure. When comparing the difference between Greece and Norway, it is clear that the crisis has had very different effects across Europe.

Fourth, the results regarding debt in percent of GDP indicate that countries with a higher debt have lower levels of trust. Still, this can not be said with absolute certainty because this finding is not significant. However, from the results I find that the financial crisis' effect on debt between 2008, and 2010, have affected political trust in countries where the debt has increased. This illustrate, as mentioned before, as the financial crisis has evolved into a debt crisis, illustrating this measures relevance. This can indicate that debt does not affect confidence when the economy is working efficiently, but during a crisis, debt is something people are concerned about.

Table 11: Predicted values on POLITICAL TRUST using mean values on all independent variables, except GDP GROSS DEBT.

	2008	**2010**
Spain	9.72	8.79
Norway	9.12	9.76
Greece	9.18	8.57
Ireland	8.80	7.65
Ukraine	9.67	8.39
United Kingdom	9.39	8.54

Table 11 illustrates predicted degree of POLITICAL TRUST in Spain, Norway, Greece, Ireland, Ukraine and United Kingdom.[47] Degree of political trust decreases in Spain, Greece, Ireland, Ukraine and United Kingdom, while it increases in Norway. By comparing these results to Table 4, level of debt increases in all these countries, except from in Norway, where the debt decreases. It is possible to conclude that when the financial crisis made the debt increase, this resulted in lower levels of trust through Europe.

The findings discussed above, illustrate how the economic situation affects confidence levels, but as indicated from both Dalton (2004) and Huseby (1999), individual perception of economic performance is also important. When testing for this the results indicate that also

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[47] When using mean values on all individual-level variables, as well as for GROWTH, UNEMPLOYMENT and GDP, letting only GDP GROSS DEBT vary.

perception of economic performance affects levels of support. By using Ringdal (2013: 329f), it is possible to assume that the causal chain between the macroeconomic indicators and individual perception is as followed:

Figure 7: Causal chain between economic situation, perception of economic situation and political trust
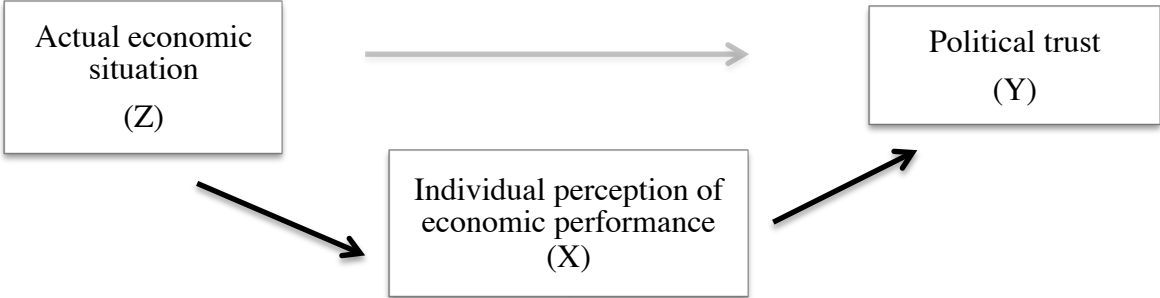
If ignoring the grey chain, the figure illustrates the effect I am seeing in the results. I assume that the effects of the macroeconomic measures are shown through individual's perception of economic performance. According to Ringdal (2013), in extreme cases the effect of *Z* disappears when controlling for *X*. The only effect that is significant when including this measure is GDP per capita level. In this case the grey chain illustrates that actual situation is an intervening factor, but does not explain the full relation between perception of economic performance and political trust.

The measure on individual's perception has, as mentioned before, problems that need to be taken into account. The biggest concern is that it scores high on the same component as political trust, indicating that they measure the same phenomenon. If they are used in a regression model, with one measure as the dependent and the other one as an independent variable, it will result in a high correlation. It is therefore a possibility that the effect of the measure on individual perception is larger, compared to in reality. If these problems are overlooked, the results indicate the same as both Dalton (2004) and Huseby's (1999) research suggests. Individual's perception of economic achievements seems to exert a direct impact on people's perception of the government, and may be more important than the economic numbers and the real economic situation. If citizens are pessimistic (or optimistic) about the economy and their personal economic situation, then these perceptions may be linked to political support.

When excluding individual perception, the actual situation is important, but as discussed, individual perception also seems to be an important factor in levels of trust. Because most of the variation in political trust exists between individuals, these results seem to be

correct. However, as individual's perception is partially affected by the actual economic situation, this suggests that the actual economic situation is of importance as well.

When testing the relationship between individual perception and the macroeconomic measures, the results indicated a correlation between them. The correlation is high enough to validate testing models both with, and without, the variable measuring individual perception. However, the measures do not correlate perfectly, which indicates a possible deviation between individual perception and economic reality. This is natural because people perceive things differently depending on, among other, their life situation and how enlightened they are. If it exist a gap between citizens' expectations and the actual situation, this should not be ignored. It is possible to apply Davies (1962) "J-curve" theory,[48] to this deviation. The theory seeks to explain the rise of revolutionary movements in terms of rising individual expectations and falling levels of perceived welfare. According to Davies (1962):

> Revolutions are most likely to occur when a prolonged period of objective economic and social development is followed by a short period of sharp reversal. The all-important effect on the minds of people in a particular society is to produce, during the former period, an expectation of continued ability to satisfy needs – which continue to rise – and, during the latter, a mental state of anxiety and frustration when manifest reality breaks away from anticipated reality. The actual state of socio-economic development is less significant than the expectation that past progress, now blocked, can and must continue in the future (Davies 1962: 6).

A revolution is seen as a subjective response to a sudden reversal in fortunes after a long period of economic growth, which is known as relative deprivation.[49] By connecting this to what has happened in many European countries, as a consequence of the economic crisis, there are possible repercussions to the crisis, which needs to be taken seriously. There have been demonstrations in several countries showing citizen's dissatisfaction against the measures taken by governments to prevent for example a rise in unemployment. On May 4th 2013, *The Economist* wrote:

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[48] Which is often used to explain social unrest and efforts by governments to contain this unrest. It is referred to as "J-Curve", because economic development followed by a depression would be modeled as an upside down and slightly skewed J (Davies 1962).

[49] Relative deprivation theory claims that frustrated expectations help overcome the collective action problem, which in this case may breed revolt. Frustrated expectations could result from several factors, including growing levels of inequality within a country, which may mean that those who are increasingly poor relative to the rich are getting less than they expected, or a period of sustained economic development, lifting general expectations, followed by a crisis (Walker and Smith 2001).

> The protesters were back in Syntagma square on May 1st, a disquieting reminder of the pressures facing the nearly one-year-old coalition government as it strives to meet the terms of Greece's second bail-out. These strains will intensify if the economy remains stuck in recession. So how plausible are sightings of an economic recovery on the horizon (The Economist 2013)?

This illustrates the current situation in Greece. I do not believe we are heading towards a revolution, but the theory describes what could happen if the deviation between expectations and actual development changes suddenly.

Blind (2006) argues that symptoms do not explain the causes of declining trust, and many different factors may be behind a decline. One factor behind a decline might be concern that the government is incapable of dealing with current fiscal and financial challenges. This is important because this indicate that it might not be, for example unemployment directly that is the cause, but the way governments have *handled* the crisis. It is a possibility that people are not just upset with the economic outcomes, but also in the way European policy-makers have handled the crisis, as it has been, many would argue, ineffective. If this is the correct, this might be what is undermining the confidence, and not the *actual* economic conditions.

Another option is that the European electorate recognizes that the crisis was instigated abroad, by an unwieldy banking sector, and therefore does not blame their own government for the crisis. Even though the crisis did not start in Europe, Greece for example, had a high budged deficit, and people were living far beyond its means before the crisis occurred (BBC 2012). Government concealed much of this borrowing, as they sought to meet the three percent-of-GDP cap on borrowing that is required of members of the euro collaboration.

Also, the European governments spend much of their energy protecting the Euro, and less on stimulating to job creation. Obama also pointed this out by stating in June of 2012: "Over the longer term, even as European countries with large debt burdens carry out necessary fiscal reforms, they've also got to promote economic growth and job creation" (Obama 2012). This is difficult to capture empirically from the results, but it needs to be considered as a possible cause for declined confidence. In this thesis I find that economic performance has an impact on citizen's trust, and also that the financial crisis has contributed to decreased levels of trust in countries affected by it. However, the mechanisms behind the crisis are many and complicated. I can therefore not state with absolute certainty, that it is the macroeconomic measures *directly* that have had an impact on trust.

Another aspect to this is that the economic crisis has hit some countries harder than others. Means that the differences between countries in the sample may be large.[50] According

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[50] The VPC illustrated that around 10 percent of the variance in political trust exist between countries.

to Roth (2010: 2), levels of trust have been reduced more in Spain and Portugal compared to France and Germany. As seen from Figure 4, Greece and the other Mediterranean countries have felt the severity of the crisis in a larger degree than for example the Scandinavian countries. I have therefore tested the effect of both *level* and *change,* for each macroeconomic indicator[51] for the Mediterranean countries.[52] These effects are for most indicators stronger. Interestingly, the counties *level* of debt in percent of GDP is significant, which was not the case when all countries were tested in Table 9. Also, when testing for how the *change* in debt affects confidence, this does not have a significant effect, as it did when controlling for the whole sample. It is a possibility that this is because the debt has been quite high in these countries before the crisis occurred as well. See Table 5.

The final question that needs to be answered is; do the findings stem from a decline that has, according to previous research, been happening for a long time, or has the financial crisis affected levels of trust? From the results there is evidence that suggest that the financial crisis has contributed to a decline in political trust in countries severely affected by it. The crisis may not have reduced political trust levels in Norway to the same degree as it has in Greece or Spain, but there are evidence suggesting the importance of economic performance. The composition of the causes and effects is complex. As discussed before, it is not necessarily an effect of the *economic indicators*, but rather an effect of *the measures implemented* by the government, that is the actual reason behind a decline in trust. It is hard to say for certain as it is a very complicated and complex issue. However, if it is the effect of worsening changes in the macro indicators or austerity measures, they are both consequences of the crisis, and a decrease in trust can then be connected to the financial crisis.

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[51] Due to number of degrees of freedom, it is not possible to include more than one macro variable at the time. I am therefore not able to find the effect when all economic measures are combined.
[52] See Tables C6 and C7.

6. Conclusion

Trust links ordinary citizens to the institutions that are intended to represent them (Bianco 1994), and thereby enhancing both the legitimacy and the effectiveness of democratic government (Gamson 1968; Braithwaite and Levi 1998; Hetherington 1998). It is therefore an essential part of a democratic system, and should not be overlooked. Findings made in this thesis suggest that the financial crisis has in fact reduced citizen's trust in political institutions, at least in countries where the crisis has had a severe impact. This may be because of the way the crisis has been handled in many of the countries. In for example Spain and Greece, people are experiencing severe budget deficits and economic stagnation, and the situation does not seem to be improving. Both economies remain in recession, limiting the prospects for improvements in the job market. By continuing in this economic downturn, the repercussions may be that citizens no longer want to live by the democratic ideals their society is build upon. In addition to riots in many countries, we have also seen an increase in more rightist or populist movements (Lachman 2010).

In this thesis I sat out to give an answer to if economic performance affect political trust, and if the financial crisis has decreased confidence levels, due to the severity of its consequences. When testing the relationship between *degree* or *level* of unemployment, debt, growth and GDP, and political trust, the findings suggest, that economic performance does impact levels of confidence. Second, I find indications that suggest that the crisis has, in countries severely affected by it, led to a decline in political trust. If the significant results are due to the actual increase/or decrease in the macroeconomic indicators used, or because of the way the policy makers have handled the crisis, is not possible to answer with absolute certainty. However, if political trust has declined as a consequence of the indicators used or the austerity measures, it is still a consequence of the financial crisis.

As previous research find that levels of trust have been declining for a long time, I included several measure points before the crisis occurred. By including 2004 and 2006 I am able to control for a possible negative trend as well. The results from Figure 4, suggest that not all countries in Europe have had a severe decline after 2008. A severe decline would indicate an effect of the crisis. The countries in which I find have had a decline in trust after the crisis, is the Mediterranean countries, which is sensible, due to the fact that the periphery countries have been most exposed to the financial crisis.

Also, evidence suggests that it may be more variation in support within the countries, compared to what it is between them. By measuring individual's perception of the economic

situation, this measure indicates that this may be just as important, or maybe more important, compared to the actual economic situation. In further research I would have tried to measure individual's perception in a better way. Because of the problems with this variable, I am cautious with generalizing these findings to the population.

The causes and effects of an economic crisis are complex, and because of this it is difficult to estimate all contributing factors and get a complete and precise view of the situation. However, by testing one model with the *level* on each macroeconomic measure, and afterwards one model with the *change* in these measures, I am able to look at the context between how levels of trust correlate with the different degrees of these indicators, as well as how a change in them affects levels of trust. In further research I would also look for ways to estimate this complexity more precisely. By doing a multilevel analysis, I have been able to look at several European countries, but as the results suggests, the crisis has not affected all countries to the same extent. By doing a case study on the countries that have been severely affected by the crisis, the details surrounding each of these countries would have been assessed in more detail.

Another limitation I want to address is, that I only have data for one year during the crisis. This is a possible challenge with the data used. The last round of ESS is collected in 2010–2011, which might be too close to the crisis in order to see the full effect. When a crisis occurs, some time has to go by before it affects the economic indicators. At the same time, it takes a while before these indicators affects individual's confidence and attitudes. It may therefore be too early to measure the full effect of the economic measures and how this has affected individual's trust in political institutions. Unfortunately, there are no comparable data available for these countries at a later time. Another limitation as I only use one year to measure the crisis, the results might be a fluctuation form the trend. In further research I would recommend including the next wave of ESS as well.

In sum, this study contributes to the understanding of the relationship between economic performance and political trust, as well as, how citizen's trust is affected by an economic crisis. By concluding that first of all, economic performance, and how governments *handle* the economy, is important for the citizens. Second, a severe economic crisis, like the financial crisis, must be taken seriously, because this as well, reduces citizen's confidence and support in political institutions. It is their job as elected representatives to lead the economy out of the recession, and if they do not handle the economic situation, this provides a foundation for higher discontent. Today, in 2013, several years after the crisis started, many Europeans are still unemployed or underemployed, and according to Krugman (2012), at recent rates of

reaction, we will not be back to normal levels of employment until around 2020. This should indicate to the governments, that the austerity measures taken perhaps are not the right way to better the situation. I am not going to suggest what they ought to do, but rather let other do it for me. Reuters interviewed *Enzo Bernardis*, a protester in Italy on the 18th of May 2013, he said: "We hope that this government will finally start listening to us because we are losing our patience" (Reuters 2013), also reporters for *CNN* interviewed Gloria Rodriguez, another protesting to voice her anger over the austerity measures taken as a consequence of the financial crisis. She said: "It is a shame what the government does; they operate as a totalitarian government with their cuts that are affecting everyone, especially in the public sector. The inequality in this country is horrific" (Smith-Spark, Nyberg and Maestro 2013), and also "We are angry and tired. This government doesn't listen to our calls for help" (Smith-Spark, Nyberg and Maestro 2013).

The Reuters wrote on may 27th that "The European Commission will further shift the EU's policy focus from austerity to structural reforms to revive growth when it presents economic recommendations for each member state on Wednesday" (Reuters 2013). It seems like the European policy-makers have changed its course.

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Appendix A: Descriptive statistics, graphs, correlations and, influence

Figure A1: Political Trust in East European countries

Political trust - East European countries
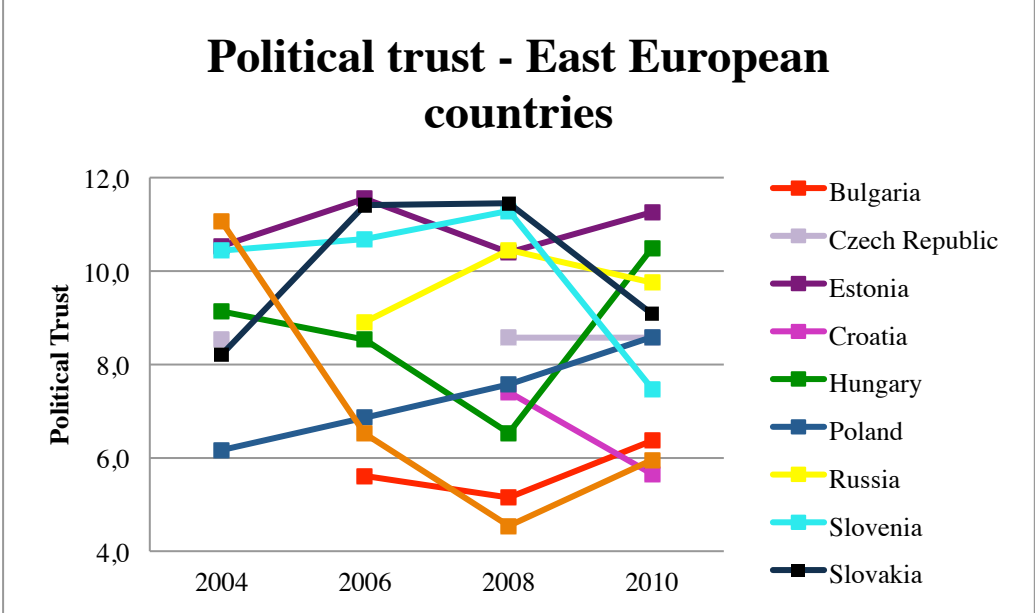
Figure A2: Political Trust in West European countries

Political Trust - West European countries
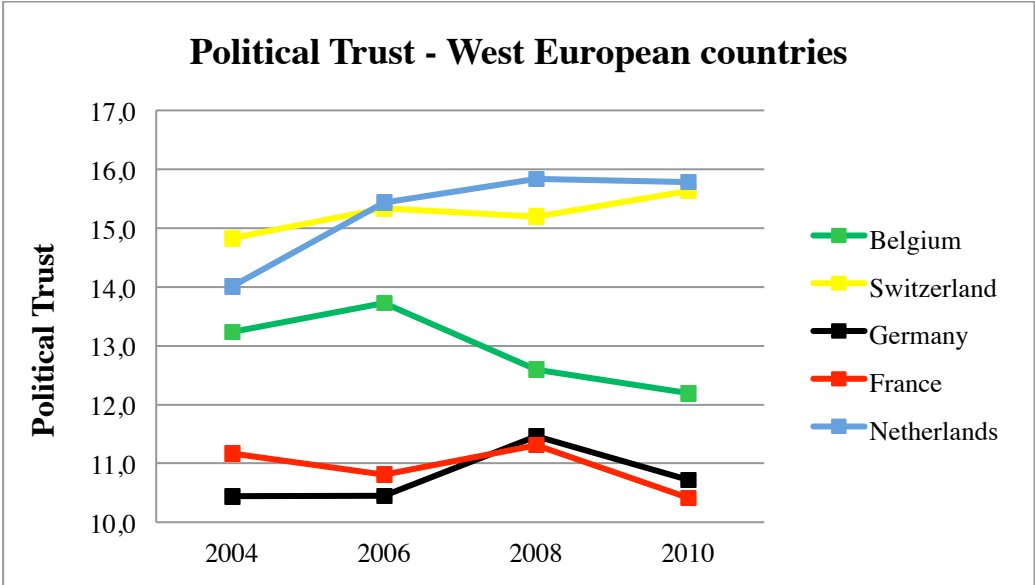
Figure A3: Political Trust in Mediterranean countries

Political Trust - Mediterranean countries
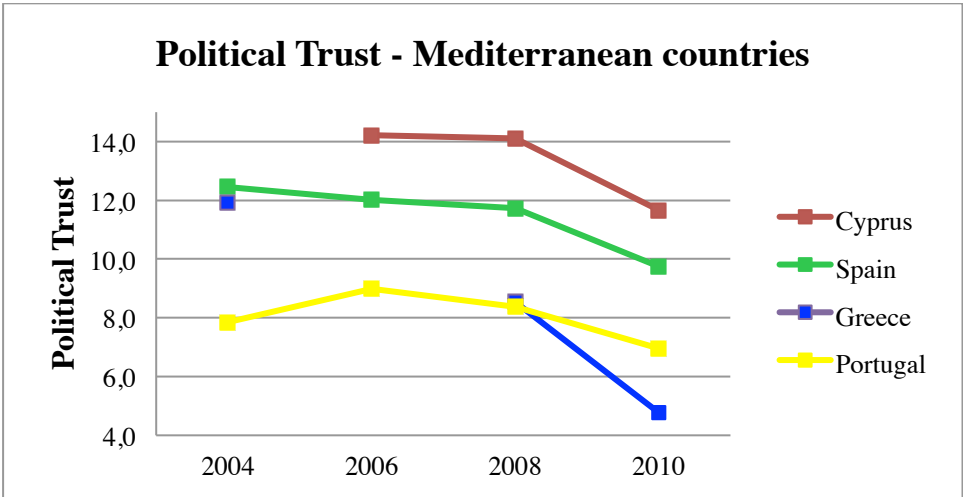
Figure A4: Political Trust in Scandinavian countries

Political Trust - Scandinavia
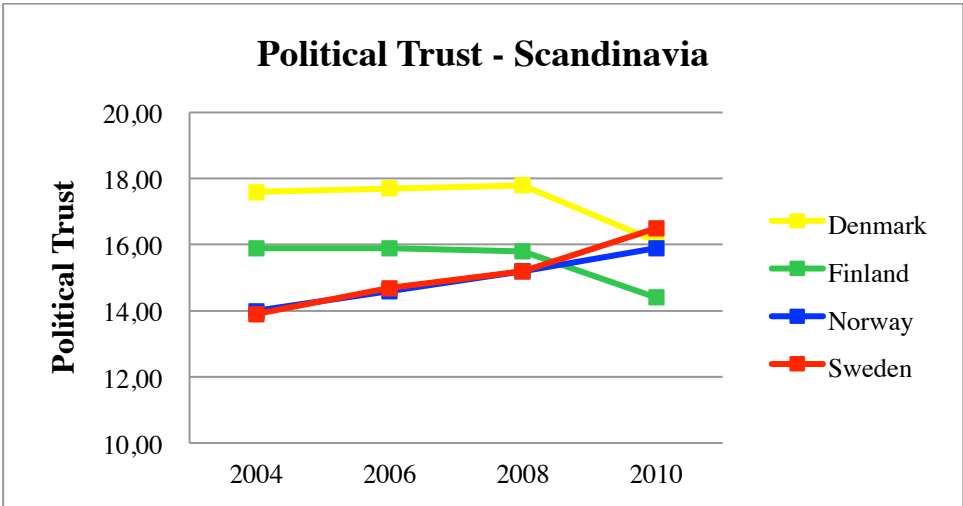
Figure A5: Political Trust in United Kingdom and Ireland

Political Trust - United Kingdom and Ireland

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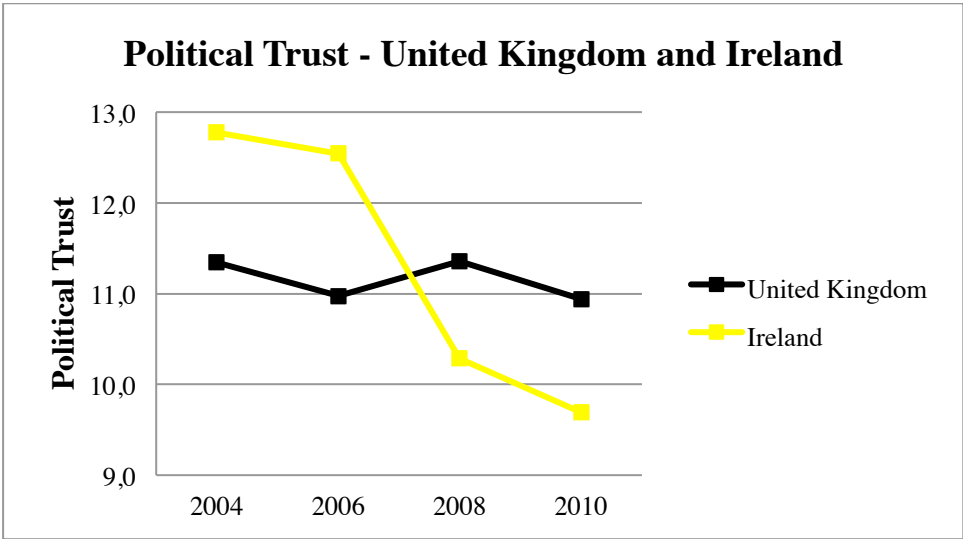
Table A1: Collection periods for ESS rounds 2, 3, 4 and 5

	ESS2 - 2004	ESS3 - 2006	ESS4 - 2008	ESS5 - 2010
Belgium	04.10.04-31.01.05	23.10.06-19.02.07	13.11.08-20.03.09	11.10.10-06.05.11
Bulgaria	-	20.11.06-10.01.07	06.03.09-31.05.09	17.12.10-28.03.11
Switzerland	15.09.04-28.02.05	24.08.06-02.04.07	30.08.08-17.04.09	02.10.10-23.03.11
Cyprus	-	02.10.06-10.12.06	29.09.08-21.12.08	01.01.11-21.06.11
Czech Republic	01.10.04-13.12.04	-	08.06.09-08.07.09	20.01.11-08.03.11
Germany	26.08.04-16.01.05	01.09.06-15.01.07	27.08.08-31.01.09	15.09.10-03.02.11
Denmark	09.10.04-31.01.05	19.09.06-02.05.07	01.09.08-11.01.09	20.09.10-31.01.11
Estonia	30.09.04-19.01.05	25.10.06-21.05.07	05.11.08-11.03.09	10.10.10-28.05.11
Spain	27.09.04-31.01.05	25.10.06-04.03.07	05.09.08-31.01.09	11.04.11-24.07.11
Finland	20.09.04-17.12.04	18.09.06-20.12.06	19.09.08-05.02.09	13.09.10-30.12.10
France	27.11.04-04.03.05	19.09.06-07.04.07	28.09.08-31.01.09	15.10.10-06.04.11
United Kingdom	27.09.04-16.03.05	05.09.06-14.01.07	01.09.08-19.01.09	31.08.10-28.02.11
Greece	10.01.05-20.03.05	-	15.07.09–20.11.09	06.05.11-05.07.11
Croatia	-	-	22.12.08–31.03.09	16.09.11–14.12.11
Hungary	02.04.05-31.05.05	21.11.06-28.01.07	20.02.09-20.04.09	19.10.10-10.12.10
Ireland	18.01.05-20.06.05	14.09.06-31.08.07	11.09.09-12.03.10	20.09.11-31.01.12
Netherlands	11.09.04-19.02.05	16.09.06-18.03.07	08.09.08-28.06.09	27.09.10-02.04.11
Norway	15.09.04-15.01.05	21.08.06-19.12.06	25.08.08-20.01.09	09.09.10-15.02.11
Poland	10.10.04-22.12.04	02.10.06-13.12.06	03.11.08-15.02.09	01.10.10-06.02.11
Portugal	15.10.04-17.03.05	12.10.06-28.02.07	09.10.08-08.03.09	11.10.10-23.03.11
Russia	-	18.09.06-09.01.07	08.11.08-09.04.09	24.12.10-14.05.11
Sweden	29.09.04-19.01.05	21.09.06-03.02.07	15.09.08-03.02.09	27.09.10-01.03.11
Slovenia	18.10.04-30.11.04	18.10.06-04.12.06	20.10.08-20.01.09	20.10.10-31.01.11
Slovakia	04.10.04-12.12.04	01.12.06-28.02.07	17.11.08-15.02.09	29.10.10-28.02.11
Ukraine	28.01.05-10.03.05	06.12.06-12.01.07	01.03.09-02.04.09	13.05.11-30.07.11

Source: http://ess.nsd.uib.no/

Table A2: Unemployment in percentages (Total of labor force)

	2009	2011	March 2013
Belgium	7.90	7.10	8.20
Bulgaria	6.80	11.20	12.40
Switzerland	4.10	4.10	3.20
Cyprus	5.30	7.70	14.00[a]
Czech Republic	6.70	6.70	8.00
Germany	7.70	5.90	5.40
Denmark	6.00	7.60	4.40
Estonia	13.80	12.50	9.30
Spain	18.00	21.60	27.20
Finland	8.20	7.70	9.00
France	9.10	9.30	10.60[b]
United Kingdom	7.70	7.80	7.90[a]
Greece	12.5	17.70	27.20
Croatia	11.8	13.40	21.60
Hungary	10.00	10.90	11.80
Ireland	13.5	14.40	14.00[c]
Netherlands	3.40	4.40	8.10
Norway	3.20	3.30	3.50[c]
Poland	8.20	9.60	14.30
Portugal	9.50	12.70	16.90[b]
Russia	8.40	6.60	5.70
Sweden	8.30	7.50	8.80
Slovenia	5.90	8.20	13.60[a]
Slovakia	12.10	13.50	14.70
Ukraine	8.70	7.90	8.10[b]

Numbers marked in red indicate increase in unemployment from 2009 to 2011, and red in 2013 indicates increase from 2011 to 2013, For Croatia, Greece, Ireland and Ukraine it is used 2010 levels instead of 2009, This is because of the ESS collection periods. [a] Unemployment rate per February 2013
[b] Unemployment rate per December 2012
[c] Unemployment rate per April 2013, Data for 2009 and 2011 is downloaded from http://databank.worldbank.org/ and data for 2013 is maid available through tradingeconomics.com

Table A3: Inflation (Yearly in percent)

	2003	2005	2007	2009
Belgium	1.59	2.78	1.82	-0.05
Bulgaria	2.16	5.04	8.40	2.75
Croatia	1.77	3.34	2.87	*1.05*
Cyprus	4.14	2.56	2.37	0.37
Czech Republic	0.11	1.85	2.93	1.04
Denmark	2.09	1.81	1.71	1.33
Estonia	1.34	4.09	6.60	-0.08
Finland	0.88	0.86	2.51	0.00
France	2.11	1.74	1.49	0.09
United Kingdom	1.36	2.05	2.32	2.17
Germany	1.04	1.56	2.29	0.31
Greece	3.53	3.55	2.90	*4.71*
Hungary	4.65	3.55	7.94	4.21
Ireland	3.48	2.43	*4.05*	-0.95
Netherlands	2.11	1.67	1.61	1.19
Norway	2.48	1.52	0.73	2.17
Poland	0.79	2.11	2.39	3.83
Portugal	3.28	2.29	2.81	-0.83
Russia	13.68	12.68	9.01	11.65
Slovakia	8.55	2.71	2.76	1.62
Slovenia	5.58	2.48	3.61	0.86
Spain	3.04	3.37	2.79	-0.29
Sweden	1.93	0.45	2.21	-0.49
Switzerland	0.64	1.17	0.73	-0.48
Ukraine	5.18	13.57	12.84	9.38

For Croatia, Greece, Ireland and Ukraine it is used 2010 levels instead of 2009, and for Ireland in 2007 it is used 2008 levels of inflation. This is because of the ESS collection periods. Numbers marked in red indicate a deviation from the countries inflation target. Numbers marked in blue indicate less than 1 percent deviation from the target.

Figure A6: Mean values POLITICAL TRUST and GDP GROSS DEBT LEVEL, 2004 – 2008
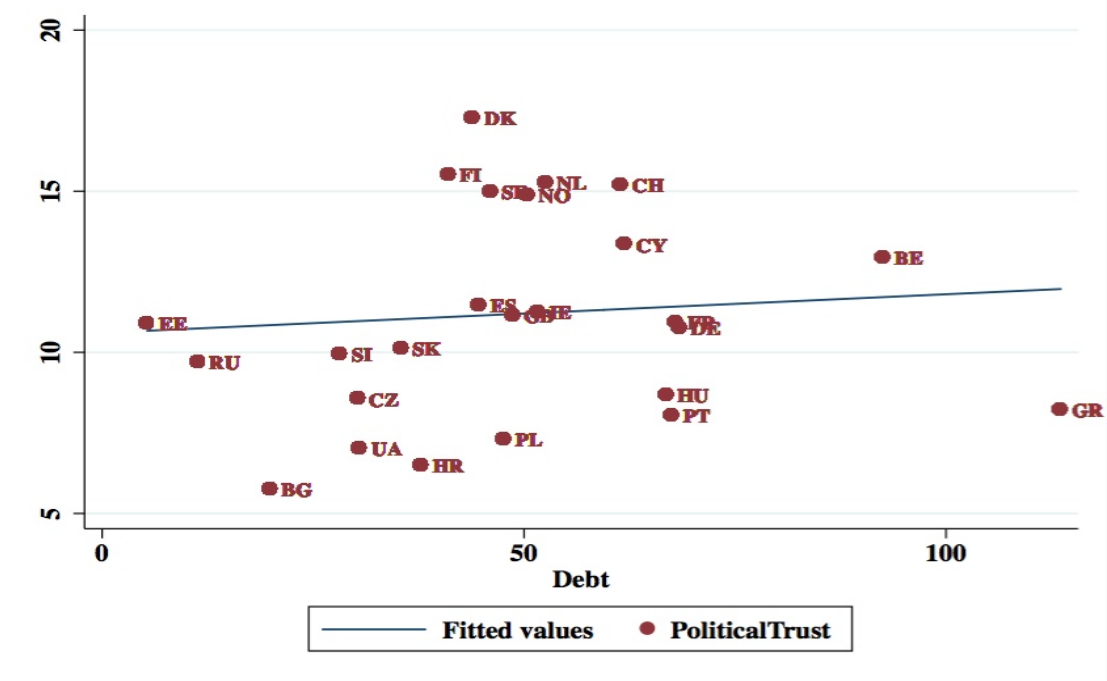
Figure A7: Mean values of POLITICAL TRUST and GDP GROSS DEBT LEVEL, 2010
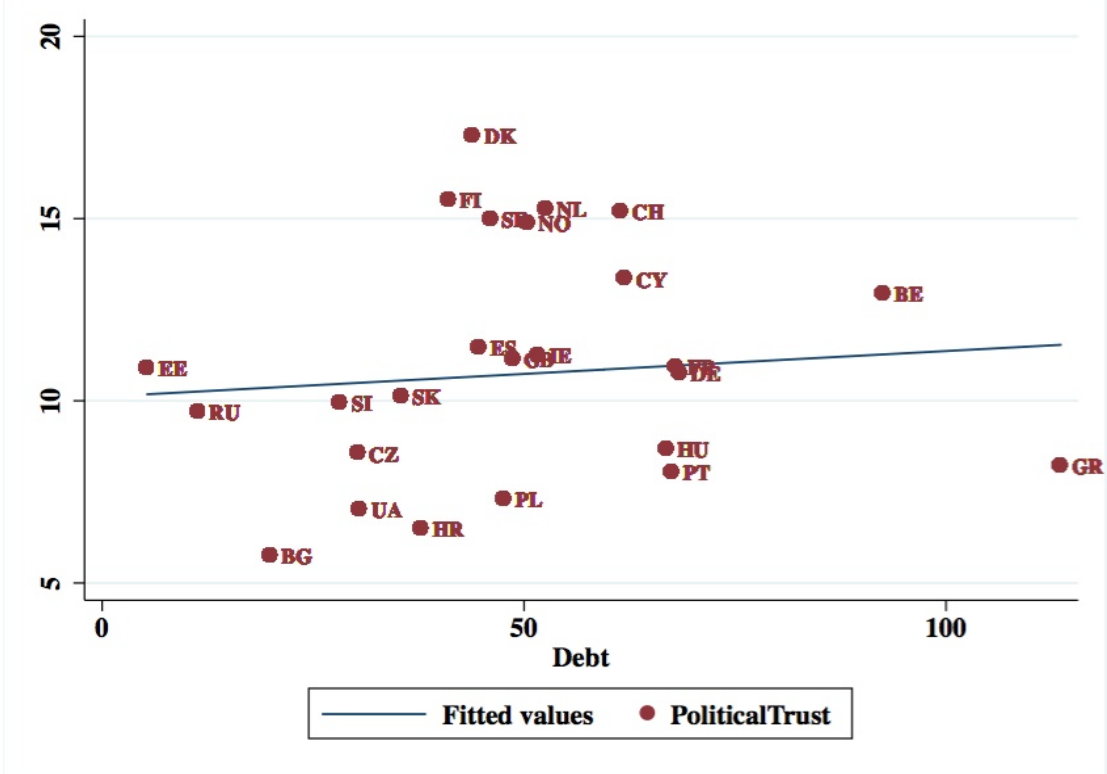
Figure A8: Mean values of POLITICAL TRUST and GDP GROSS DEBT LEVEL, 2004 -2010
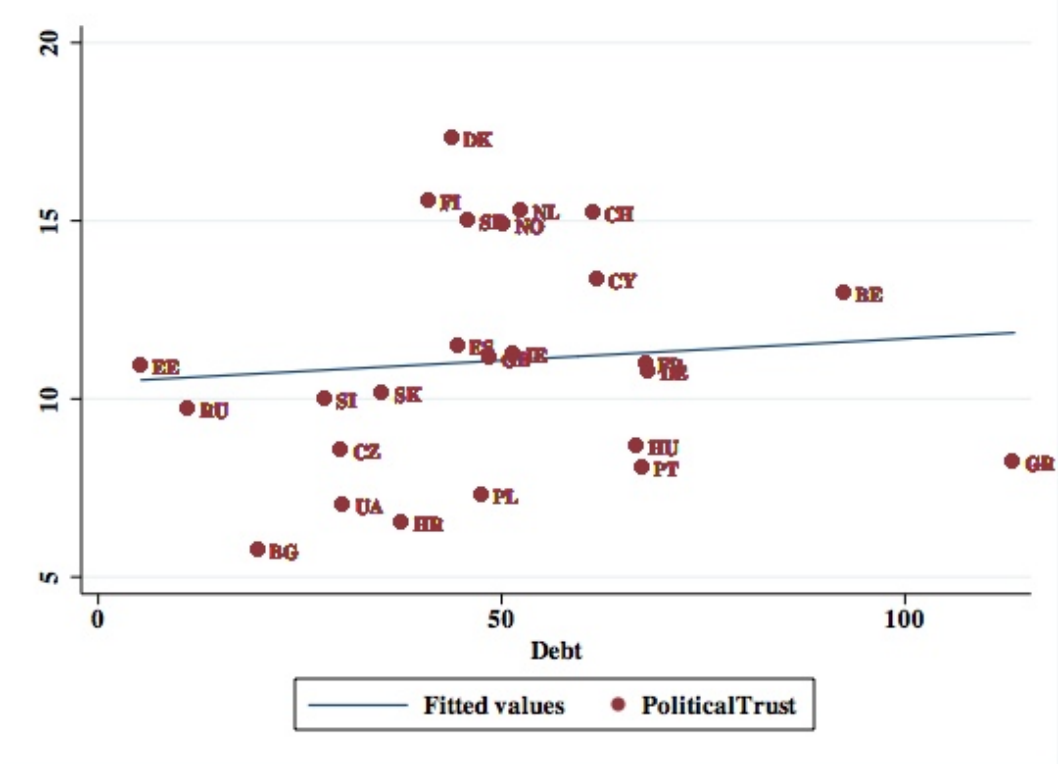
Table A4: Correlation between HOW SATISFIED WITH STATE OF ECONOMY IN COUNTRY[a] and the macroeconomic indicators measuring level

	GDP growth level	GDP Per Capita level	Unemployment level	GDP gross debt level
How satisfied with present state of economy in country	.056	.623	-.406	-.126

$N = 149,640$ [a] the measure is aggregated to country-year level for this purpose

Table A5: Correlation between HOW SATISFIED WITH STATE OF ECONOMY IN COUNTRY[a] and the macroeconomic indicators measuring change

	GDP growth change	GDP per capita change	Unemployment change	GDP gross debt change
How satisfied with present state of economy in country	.145	.424	-.161	-.198

$N = 149,640$ [a] the measure is aggregated to country-year level for this purpose

Table A6: Testing for multicollinearity   Tolerance

	Tolerance
How satisfied with present state of economy in country (aggregated)	.323
GDP gross debt level	.602
Unemployment level	.654
GDP per capita level	.262
GDP growth level	.321
Age Squared	.030
Age	.030
2008	.249
2006	.343
2004	.377
Education	.748
Feeling about household income nowadays	.774
Political interest	.831
Voted last national election	.888
Unemployed	.956
Woman	.973

Table A7: Testing for multicollinearity   Tolerance

	Tolerance
How satisfied with present state of economy in country (aggregated)	.577
GDP growth change	.296
GDP per capita change	.363
Unemployment change	.479
GDP gross debt change	.479
Age Squared	.030
Age	.030
2008	.137
2006	.193
2004	.195
Education	.752
Feeling about household income nowadays	.790
Political interest	.833
Voted last national election	.894
Unemployed	.959
Woman	.974

Figure A9: Testing for curvilinear effect on age
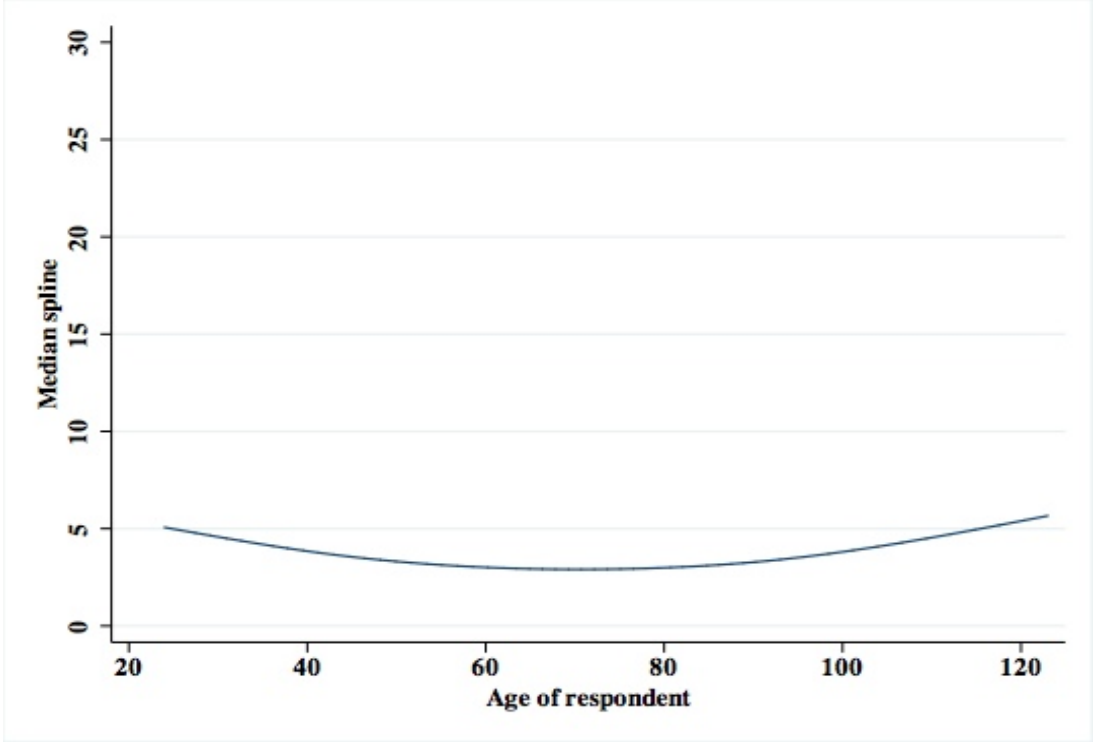
Appendix B: Scale Construction of Political Trust

Table B1: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Variance	Cumulative	Total	Variance	Cumulative	Total	Variance	Cumulative
Component 1	5.908	53.713	53.713	5.908	53.713	53.713	4.080	37.088	37.088
Component 2	1.082	9.832	63.546	1.082	9.832	63.546	2.910	26.458	63.546
Component 3	.804	7.306	70.851						
Component 4	.755	6.864	77.716						
Component 5	.567	5.151	82.867						
Component 6	.456	4.148	87.015						
Component 7	.402	3.658	90.673						
Component 8	.326	2.967	93.640						
Component 9	.317	2.882	96.522						
Component 10	.258	2.341	98.863						
Component 11	.125	1.137	100.000						

Each component loading less than 0.35 has been deleted from the table. KMO that is a measure on homogeneity in the variables has a value of 0.909. Extraction method: Principal Component Analysis. Rotation method: Varimax with Kaiser Normalization. Variance and Cumulative are both in percent.

Table B2: Rotated Component Matrix[a]

	1	2
Trust in politicians	.881	
Trust in political parties	.865	
Trust in country's parliament	.840	
Trust in the legal system	.739	
Trust in the police	.609	.359
How satisfied with the national government	.580	.502
State of education in country nowadays		.741
State of health services in country nowadays		.719
How satisfied with life as a whole		.678
How satisfied with present state of economy in country	.431	.643
How satisfied with the way democracy works in country	.539	.580

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
[a] Rotation converged in 3 iterations.

Table B3: Reliability analysis

Reliability statistics	
Chronbach's Alpha	0.911
N	3

Table C1: Including HOW SATISFIED WITH STATE OF ECONOMY IN COUNTRY. Random intercept model three levels: individual, country-year and country. Dependent variable: POLITICAL TRUST

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	4.935***	4.764***	4.745***	2.860***	4.907***	4.361***	2.708***
	(.338)	(.367)	(.395)	(.451)	(.525)	(.596)	(.680)
Level-1							
How satisfied with present state of economy in country	**1.131*****	**1.131*****	**1.131*****	**1.131*****	**1.131*****	**1.131*****	**1.131*****
	(.007)	**(.007)**	**(.007)**	**(.007)**	**(.007)**	**(.007)**	**(.007)**
Political interest	1.222***	1.222***	1.222***	1.221***	1.221***	1.221***	1.221***
	(.017)	(.017)	(.017)	(.017)	(.017)	(.017)	(.017)
Voted last national election[a]	1.122***	1.122***	1.122***	1.122***	1.122***	1.122***	1.122***
	(.036)	(.036)	(.036)	(.036)	(.036)	(.036)	(.036)
Unemployed[b]	.082	.082	.082	.082	.082	.082	.082
	(.071)	(.071)	(.071)	(.071)	(.071)	(.071)	(.071)
Feeling about household's income nowadays	.107***	.106***	.106***	.105***	.105***	.105***	.105***
	(.018)	(.018)	(.018)	(.018)	(.018)	(.018)	(.018)
Education	.008*	.008*	.008*	.008*	.008*	.008*	.008*
	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Woman[c]	.492***	.492***	.492***	.492***	.492***	.492***	.492***
	(.028)	(.028)	(.028)	(.028)	(.028)	(.028)	(.028)
Age	-.087***	-.087***	-.087***	-.087***	-.087***	-.087***	-.087***
	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Age squared	.001***	.001***	.001***	.001***	.001***	.001***	.001***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Time control							
2004[d]		.312	.346	.939***	.305	.365	.938***
		(.246)	(.356)	(.269)	(.248)	(.254)	(.359)
2006[d]		-.207	-.170	.106	-.216	-.155	.109
		(.242)	(.370)	(.247)	(.245)	(.250)	(.367)
2008[d]		.535**	.574	.453**	.497**	.605**	.469
		(.232)	(.383)	(.231)	(.254)	(.246)	(.388)
Level 2							
GDP growth level			-.005				.002
			(.036)				(.036)
GDP per Capita level[e]				.061***			.060***
				(.011)			(.013)
Unemployment level					-.016		.000
					(.044)		(.045)
GDP gross debt level						.007	.003
						(.009)	(.008)
Random part							
Var (e$_{ijk}$)	27.057	27.057	27.057	27.057	27.057	27.057	27.057
	(.100)	(.100)	(.100)	(.100)	(.100)	(.100)	(.100)
Var (u$_{0jk}$)	.766	.654	.655	.646	.661	.657	.641
	(.134)	(.115)	(.116)	(.114)	(.118)	(.116)	(.114)
Var (v$_{0k}$)	2.258	2.315	2.301	.982	2.235	2.209	.994
	(.704)	(.711)	(.715)	(.333)	(.724)	(.687)	(.343)
Log Likelihood	-451975	-451970	-451970	-451960	-451970	-451969	-451960
	35572***	10.26**	10.28**	30.21***	10.39**	10.96**	30.43***
- 2LL change			0.02	19.95***	0.13	0.70	20.16***

[a] reference category did not vote last national election [b] reference category employed, unemployed not looking for a job, permanently sick or disabled, retired, homemakers, under education, community or military service and others, [c] reference category men, [d] reference category 2010, [e] The variable is divided by 1000, *N*: Level-3: 25, Level-2: 93, Level-1: 147,256, Standard errors in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Model 3 through 7 is tested against Model 1 and 2, also -2LL change for Model 7 is tested against Model 3: 20.15***, Model 4: 0.22, Model 5: 20.04*** and, Model 6: 19.46***

Table C2: Including HOW SATISFIED WITH STATE OF ECONOMY IN COUNTRY. Random intercept model with three levels: individual, country-year and country. Dependent variable: POLITICAL TRUST

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	4.935***	4.764***	5.065***	4.744***	4.600***	4.648***	4.965***
	(0.338)	(0.367)	(0.442)	(0.372)	(0.379)	(0.389)	(0.490)
Level-1							
How satisfied with present state of economy in country	**1.131***	**1.131***	**1.131***	**1.131***	**1.131***	**1.131***	**1.131***
	(.007)	**(.007)**	**(.007)**	**(.007)**	**(.007)**	**(.007)**	**(.007)**
Political interest	1.222***	1.222***	1.222***	1.222***	1.222***	1.222***	1.222***
	(.017)	(.017)	(.017)	(.017)	(.017)	(.017)	(.017)
Voted last national election[a]	1.122***	1.122***	1.122***	1.122***	1.122***	1.122***	1.122***
	(.036)	(.036)	(.036)	(.036)	(.036)	(.036)	(.036)
Unemployed[b]	.082	.082	.082	.082	.082	.082	.082
	(.071)	(.071)	(.071)	(.071)	(.071)	(.071)	(.071)
Feeling about household's income nowadays	.107***	.107***	.107***	.107***	.107***	.107***	.107***
	(.018)	(.018)	(.018)	(.018)	(.018)	(.018)	(.018)
Education	.008*	.008*	.008*	.008*	.008*	.008*	.008*
	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Woman[c]	0.492***	0.492***	0.492***	0.492***	0.492***	0.492***	0.492***
	(.028)	(.028)	(.028)	(.028)	(.028)	(.028)	(.028)
Age	-.087***	-.087***	-.087***	-.087***	-.087***	-.087***	-.087***
	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Age squared	.001***	.001***	.001***	.001***	.001***	.001***	.001***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Time control							
2004[d]		.312	.002	.415	.463*	.432	.034
		(.246)	(.353)	(.318)	(.269)	(.279)	(.503)
2006[d]		-.207	-.536	-.115	-.018	-.056	-.457
		(.242)	(.362)	(.302)	(.279)	(.293)	(.513)
2008[d]		.535**	.206	.649**	.825***	.693**	.394
		(.232)	(.355)	(.322)	(.315)	(.289)	(.536)
Level-2							
GDP growth change			.036				.047
			(.030)				(.034)
GDP per capita change[e]				-.015			.008
				(.029)			(.031)
Unemployment change					.074		.089
					(.055)		(.061)
GDP gross debt change						.012	-.000
						(.014)	(.015)
Random part							
Var (e_{ijk})	27.057	27.057	27.057	27.057	27.057	27.057	27.057
	(.010)	(.010)	(.010)	(.010)	(.010)	(.010)	(.010)
Var (u_{0jk})	.766	.654	.639	.645	.650	.646	.635
	(.134)	(.115)	.113	(.114)	(.115)	(.114)	(.114)
Var (v_{0k})	2.258	2.315	2.322	2.382	2.182	2.318	2.129
	(.704)	(.711)	(.712)	(.742)	(.680)	(.711)	(.684)
Log Likelihood	-451975	-451970	-451969	-451970	-451969	-451969	-451968
	35562***	10.26**	11.71**	10.51**	12.06**	11.07**	14.17**
- 2LL change			1.45	0.24	1.79	0.81	3.90

[a] Reference category did not vote last national election, [b] reference category employed, unemployed not looking for a job, permanently sick or disabled, retired, homemakers, under education, community or military service and others, [c] dummy variable with reference category men, [d] reference category 2010, [e] The variable is divided by 1000, *N*: Level-3: 25, Level-2: 93, Level-1: 147,256, Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, Model 3 through 7 is tested against both Model 1 and 2, also -2LL for Model 7 is tested against Model 3: 2.45, Model 4: 3.66, Model 5: 2.11 and Model 6: 3.09

Table C3: Random intercept model with three levels: individual, country-year and country.
Dependent variable: TRUST IN COUNTRY'S PARLIAMENT

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	3.445*** (.197)	3.252*** (.211)	3.402*** (.231)	2.005*** (.236)	3.930*** (.284)	3.678*** (.352)	2.773*** (.357)
Level-1							
Political interest	.422*** (.007)	.422*** (.007)	.422*** (.007)	.421*** (.007)	.422*** (.007)	.422*** (.007)	.421*** (.007)
Voted last national election[a]	.524*** (.015)	.524*** (.015)	.524*** (.015)	.524*** (.015)	.524*** (.015)	.524*** (.015)	.524*** (.015)
Unemployed[b]	-.186*** (.030)	-.185*** (.030)	-.185*** (.030)	-.186*** (.030)	-.185*** (.030)	-.185*** (.030)	-.185*** (.030)
Feeling about household's income nowadays	.206*** (.008)	.206*** (.008)	.206*** (.008)	.206*** (.008)	.206*** (.008)	.206*** (.008)	.206*** (.008)
Education	.031*** (.002)	.031*** (.002)	.031*** (.002)	.031*** (.002)	.031*** (.002)	.031*** (.002)	.031*** (.002)
Woman[c]	.020* (.012)	.020* (.012)	.020* (.012)	.020* (.012)	.020* (.012)	.020* (.012)	.020* (.012)
Age	-.045*** (.002)	-.045*** (.002)	-.045*** (.002)	-.045*** (.002)	-.045*** (.002)	-.045*** (.002)	-.045*** (.002)
Age squared	.000*** (.000)	.000*** (.000)	.000*** (.000)	.000*** (.000)	.000*** (.000)	.000*** (.000)	.000*** (.000)
Time control							
2004[d]		.328** (.141)	.063 (.197)	.736*** (.152)	.292** (.136)	.271* (.141)	.436** (.193)
2006[d]		.309** (.138)	.021 (.204)	.517*** (.142)	.265** (.134)	.254* (.138)	.188 (.197)
2008[d]		.179 (.132)	-.133 (.211)	.126 (.133)	-.001 (.139)	.105 (.137)	-.299 (.209)
Level-2							
GDP growth level			.037* (.0198)				.034* (.019)
GDP per capita level				.040*** (.006)			.039*** (.007)
Unemployment level					-.078*** (.024)		-.041* (.024)
GDP gross debt level						-.008 (.005)	-.005 (.004)
Random part							
Var (e$_{ijk}$)	4.943 (.018)	4.943 (.018)	4.943 (.018)	4.943 (.018)	4.943 (.018)	4.943 (.018)	4.943 (.018)
Var (u$_{0jk}$)	.238 (.041)	.216 (.038)	.201 (.035)	.218 (.038)	.201 (.035)	.202 (.036)	.189 (.033)
Var (v$_{0k}$)	.845 (.259)	.832 (.254)	.903 (.275)	.252 (.090)	.672 (.210)	.930 (.294)	.261 (.091)
Log Likelihood	-332123	-332120	-332118	-332107	-332115	-332119	-332102
	8899***	6.87*	10.05**	32.50***	16.81***	8.97*	42.01***
-2LL change			3.18*	25.63***	9.95***	2.11	35.15***

[a] reference category did not vote last national election, [b] reference category employed, unemployed not looking for a job, permanently sick or disabled, retired, homemakers, under education, community or military service and others, [c] reference category men, [d] reference category 2010, [e] The variable is divided by 1000, *N*: Level-3: 25, Level-2: 93, Level-1:149,640, Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, Model 3 through 7 is tested against both Model 1 and 2, also -2LL change for Model 7 is tested against Model 3: 28.67***, Model 4:10.34**, Model 5: 21.98*** and Model 6: 29.14***

Table C4: Random intercept model with three levels: individual- country-year and country.
Dependent variable: TRUST IN POLITICIANS

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	2.873***	2.745***	2.872***	1.676***	3.280***	3.080***	2.351***
	(.181)	(.191)	(.206)	(.219)	(.246)	(.304)	(.311)
Level-1							
Political interest	.435***	.435***	.435***	.435***	.435***	.435***	.435***
	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)
Voted last national election[a]	.444***	.444***	.444***	.444***	.443***	.444***	.444***
	(.014)	(.014)	(.014)	(.014)	(.014)	(.014)	(.014)
Unemployed[b]	-.139***	-.138***	-.138***	-.138***	-.138***	-.138***	-.138***
	(.028)	(.028)	(.028)	(.028)	(.028)	(.028)	(.028)
Feeling about household's income nowadays	.192***	.192***	.192***	.192***	.192***	.192***	.192***
	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)
Education	.002	.002	.002	.002	.002	.002	.002
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Woman[c]	.167***	.167***	.167***	.167***	.167***	.167***	.167***
	(.011)	(.011)	(.011)	(.011)	(.011)	(.011)	(.011)
Age	-.043***	-.043***	-.043***	-.043***	-.043***	-.043***	-.043***
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Age squared	.000***	.000***	.000***	.000***	.000***	.000***	.000***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Time control							
2004[d]		.228**	.006	.581***	.200*	.184	.324**
		(.114)	(.160)	(.129)	(.112)	(.116)	(.163)
2006[d]		.200*	-.041	.379***	.166	.157	.100
		(.112)	(.166)	(.117)	(.110)	(.114)	(.166)
2008[d]		.113	-.149	.067	-.029	.0549	-.300*
		(.108)	(.172)	(.110)	(.114)	(.112)	(.176)
Level-2							
GDP growth level			.031*				.029*
			(.016)				(.016)
GDP per capita level				.034***			.034***
				(.006)			(.006)
Unemployment level					-.062***		-.036*
					(.020)		(.021)
GDP gross debt level						-.006	-.004
						(.004)	(.004)
Random part							
Var (e_ijk)	4.250	4.250	4.250	4.250	4.250	4.250	4.250
	(.016)	(.016)	(.016)	(.016)	(.016)	(.016)	(.016)
Var (u_0jk)	.152	.142	.132	.147	.134	.135	.132
	(.027)	(.025)	(.023)	(.026)	(.024)	(.024)	(.023)
Var (v_0k)	.722	.713	.760	.246	.575	.759	.220
	(.217)	(.214)	(.227)	(.084)	(.178)	(.231)	(.076)
Log Likelihood	-320812	-320810	-320808	-320799	-320806	-320809	-320794
	8653***	4.83	8.25*	26.43***	13.77***	6.77	36.72***
-2LL change			3.42*	21.59***	8.94***	1.94	31.89***

[a] reference category did not vote last national election, [b] reference category employed, unemployed not looking for a job, permanently sick or disabled, retired, homemakers under education, community or military service and others, [c] reference category men, [d] reference category 2010, [e] The variable is divided by 1000, *N*: Level-3: 25, Level-2: 93, Level-1: 149,640, Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, Model 3 through 7 is tested against both Model 1 and 2, also -2LL change for Model 7 is tested against Model 3: 28.47***, Model 4:10.30**, Model 5: 22.95*** and, Model 6: 29.95***

Table C5: Random intercept model with three levels: individual, country-year and country.
Dependent variable: TRUST IN POLITICAL PARTIES

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	3.277***	3.135***	3.242***	2.087***	3.652***	3.482***	2.756***
	(.180)	(.189)	(.202)	(.216)	(.237)	(.294)	(.301)
Level-1							
Political interest	.473***	.473***	.473***	.472***	.473***	.472***	.472***
	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)
Voted last national election[a]	.461***	.460***	.461***	.461***	.460***	.461***	.461***
	(.014)	(.014)	(.014)	(.014)	(.014)	(.014)	(.014)
Unemployed[b]	-.105***	-.105***	-.105***	-.105***	-.104***	-.105***	-.104***
	(.028)	(.028)	(.028)	(.028)	(.028)	(.028)	(.028)
Feeling about household's income nowadays	.172***	.172***	.171***	.171***	.172***	.171***	.171***
	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)
Education	-.006***	-.006***	-.006***	-.006***	-.006***	-.006***	-.006***
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Woman[c]	.142***	.142***	.142***	.142***	.142***	.142***	.142***
	(.011)	(.011)	(.011)	(.011)	(.011)	(.011)	(.011)
Age	-.053***	-.053***	-.053***	-.053***	-.053***	-.053***	-.053***
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Age squared	.001***	.001***	.001***	.001***	.001***	.001***	.001***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Time control							
2004[d]		.234**	.046	.582***	.207**	.188*	.358**
		(.107)	(.151)	(.122)	(.104)	(.108)	(.155)
2006[d]		.229**	.025	.403***	.195*	.184*	.163
		(.105)	(.157)	(.111)	(.103)	(.106)	(.157)
2008[d]		.134	-.087	.089	-.003	.074	-.236
		(.101)	(.162)	(.103)	(.107)	(.105)	(.166)
Level-2							
GDP growth level			.026*				.024
			(.015)				(.015)
GDP per capita level				.034***			.033***
				(.006)			(.006)
Unemployment level					-.060***		-.037*
					(.019)		(.020)
GDP gross debt level						-.006	-.004
						(.004)	(.003)
Random part							
Var (e_{ijk})	4.126	4.126	4.126	4.126	4.126	4.126	4.126
	(.015)	(.015)	(.015)	(.015)	(.015)	(.015)	(.015)
Var (u_{0jk})	.136	.124	.117	.130	.116	.118	.117
	(.024)	(.022)	(.021)	(.023)	(.021)	(.021)	(.021)
Var (v_{0k})	.720	.712	.750	.250	.576	.755	.217
	(.215)	(.212)	(.223)	(.083)	(.176)	(.227)	(.074)
Log Likelihood	-318601	-318598	-318596	-318587	-318593	-318596	-318582
	9412***	6.26*	9.04*	27.37***	15.73***	8.57*	37.71***
-2LL			2.78*	21.11***	9.47***	2.30	31.45***

[a] reference category did not vote last national election, [b] reference category employed, unemployed not looking for a job, permanently sick or disabled, retired, homemakers, under education, community or military service and others, [c] reference category men, [d] reference category 2010, [e] The variable is divided by 1000, *N*: Level-3: 25, Level-2: 93, Level-1: 149,640, Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, Model 3 - 7 is tested against both Model 1 and 2, also -2LL for Model 7 is tested against Model 3: 28.67***, Model 4:10.34**, Model 5: 21.98*** and Model 6: 29.14***

Table C4: Including INFLATION LEVEL. Random intercept model with three levels: individual, country-year and country. Dependent variable: POLITICAL TRUST

	Model 1	Model 2
Constant	9.462***	8.155***
	(.616)	(.948)
Level-1		
Political interest	1.329***	1.329***
	(.018)	(.018)
Voted last national election[a]	1.427***	1.428***
	(.039)	(.039)
Unemployed[b]	-.428***	-.428***
	(.077)	(.077)
Feeling about household's income nowadays	.570***	.569***
	(.020)	(.020)
Education	.027***	.027***
	(.004)	(.004)
Woman[c]	.329***	.329***
	(.030)	(.030)
Age	-.141***	-.141***
	(.005)	(.005)
Age squared	.001***	.001***
	(.000)	(.000)
Time control		
2004[d]	.740**	1.025**
	(.356)	(.497)
2006[d]	.574	.235
	(.367)	(.521)
2008[d]	.271	-1.037*
	(.350)	(.547)
Level-2		
GDP Growth level		.094*
		(.049)
GDP per Capita level[e]		.107***
		(.017)
Unemployment level		-.103*
		(.062)
GDP Gross Debt level		-.013
		(.011)
Inflation level[f]	**-.483**	**-.497**
	(.334)	**(.308)**
Random part		
Var (e_{ijk})	32.223	32.223
	(.118)	(.118)
Var (u_{0jk})	1.372	1.221
	(.239)	(.215)
Var (v_{0k})	6.390	1.920
	(1.927)	(.662)
Log Likelihood	-472389	-472371
	8.20*	
-2LL change	2.07	35.20***

[a] reference category did not vote last national election, [b] reference category employed, unemployed not looking for a job, permanently sick or disabled, retired, homemakers under education, community or military service and others, [c] dummy variable with reference category men, [d] reference category 2010, [e] The variable is divided by 1000, [f] Inflation is a dummy variable measuring inflation below or above more than one percent from inflation target (1), while reference + / - 1 percent from inflation level (0), N: Level-3: 25, Level-2: 93, Level-1: 149,640, Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, Model 1 is tested against Model 1 and 2 in the main analysis, while Model 2 is tested against Model 1, where inflation is added.

Table C5: Including INFLATION CHANGE. Random intercept model with three levels: individual, country-year and country. Dependent variable: POLITICAL TRUST

	Model 1	Model 2
Constant	8.971***	10.24***
	(.588)	(.752)
Level-1		
Political interest	1.329***	1.329***
	(.018)	(.018)
Voted last national election[a]	1.427***	1.428***
	(.039)	(.039)
Unemployed[b]	-.428***	-.427***
	(.077)	(.077)
Feeling about household's income nowadays	.570***	.570***
	(.020)	(.020)
Education	.027***	.027***
	(.004)	(.004)
Woman[c]	.329***	.329***
	(.030)	(.030)
Age	-.141***	-.141***
	(.005)	(.005)
Age squared	.001***	.001***
	(.000)	(.000)
Time control		
2004[d]	.947**	-.431
	(.372)	(.713)
2006[e]	.903**	-.676
	(.368)	(.722)
2008[f]	.625*	-1.190
	(.363)	(.750)
Level-2		
GDP Growth change		.072
		(.048)
GDP per Capita change[g]		.018
		(.043)
Unemployment change		-.151*
		(.085)
GDP gross Debt change		-.040*
		(.021)
Inflation change	**-.088**	**-.124***
	(.064)	**(.064)**
Random part		
Var (e_{ijk})	32.223	32.223
	(.118)	(.118)
Var (u_{0jk})	1.367	1.108
	(.238)	(.196)
Var (v_{0k})	6.500	6.779
	(1.953)	(2.063)
Log Likelihood	-472389	-472382
	8.04*	13.27***
-2LL change	1.91	

[a] reference category did not vote last national election, [b] reference category employed, unemployed not looking for a job, permanently sick or disabled, retired, homemakers under education, community or military service and others, [c] dummy variable with reference category men, [d] reference category 2010, [e] The variable is divided by 1000, *N*: Level-3: 25, Level 2: 93, Level-1: 149,640, Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, Model 1 is tested against Model 1 and 2 in the main analysis, while Model 2 is tested against Model 1, where inflation is added.

Table C6: Random intercept model with three levels: individual, country-year and country. Dependent variable: POLITICAL TRUST. Mediterranean countries.

	Model 2	Model 3	Model 4	Model 5
Constant	7.336***	13.48***	10.52***	13.07***
	(.924)	(2.676)	(1.605)	(2.161)
Level-1				
Political interest	1.718***	1.718***	1.718***	1.718***
	(.044)	(.044)	(.044)	(.044)
Voted last national election	.706***	.707***	.707***	.707***
	(.102)	(.102)	(.102)	(.102)
Unemployed	-.349*	-.352*	-.351*	-.353*
	(.181)	(.181)	(.181)	(.181)
Feeling about household's income nowadays	.356***	.356***	.355***	.354***
	(.048)	(.048)	(.048)	(.048)
Education	-.018*	-.018*	-.018*	-.018*
	(.010)	(.010)	(.010)	(.010)
Woman	.489***	.489***	.489***	.489***
	(.077)	(.077)	(.077)	(.077)
Age	-.070***	-.070***	-.070***	-.070***
	(.013)	(.013)	(.013)	(.013)
Age squared	.001***	.001***	.001***	.001***
	(.000)	(.000)	(.000)	(.000)
Level-2				
GDP growth level	.437***			
	(.060)			
GDP per capita level		-.229**		
		(.094)		
Unemployment level			-.306**	
			(.149)	
GDP gross debt level				-.072***
				(.027)
Random part				
Var (e_{ijk})	32.335	32.335	32.335	32.335
	(.302)	(.302)	(.302)	(.302)
Var (u_{0jk})	.503	1.809	2.366	2.046
	(.234)	(.833)	(1.062)	(.954)
Var (v_{0k})	2.789	6.677	2.752	2.416
	(2.095)	(5.365)	(2.427)	(2.340)
Log Likelihood	-72416	-72424	-72424	-72423
- 2LL change	15.87***	12.62***	5.51**	1.96

[a] reference category did not vote last national election, [b] reference category employed, unemployed not looking for a job, permanently sick or disabled, retired, homemakers under education, community or military service and others, [c] dummy variable with reference category men, [d] reference category 2010, [e] The variable is divided by 1000, *N*: Level-3: 4, Level 2: 14, Level-1: 22,929, Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table C7: Random intercept model with three levels: individual, country-year and country. Dependent variable: POLITICAL TRUST. Mediterranean countries.

	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	7.910***	8.407***	6.054***	8.250***	7.906***
	(1.064)	(1.084)	(1.031)	(1.067)	(0.985)
Level-1					
Political interest	1.718***	1.718***	1.718***	1.718***	1.718***
	(.044)	(.044)	(.044)	(.044)	(.044)
Voted last national election	.706***	.706***	.706***	.707***	.706***
	(.102)	(.102)	(.102)	(.102)	(.102)
Unemployed	-.352*	-.349*	-.349*	-.351*	-.351*
	(.181)	(.181)	(.181)	(.181)	(.181)
Feeling about household's income nowadays	.355***	.356***	.356***	.356***	.356***
	(.048)	(.048)	(.048)	(.048)	(.048)
Education	-.018*	-.018*	-.018*	-.018*	-.018*
	(.010)	(.010)	(.010)	(.010)	(.010)
Woman	.489***	.489***	.489***	.489***	.489***
	(.077)	(.077)	(.077)	(.077)	(.077)
Age	-.070***	-.070***	-.070***	-.070***	-.070***
	(.013)	(.013)	(.013)	(.013)	(.013)
Age squared	.001***	.001***	.001***	.001***	.001***
	(.000)	(.000)	(.000)	(.000)	(.000)
Level-2					
GDP growth change		.364***			
		(.058)			
GDP per capita 1000 change			.547***		
			(.114)		
Unemployment change				-.347***	
				(.128)	
GDP gross debt change					-.093
					(.064)
Random part					
Var (e_{ijk})	32.335	32.335	32.335	32.33499	32.335
	(.302)	(.302)	(.302)	(.302)	(.302)
Var (u_{0jk})	3.204	.632	.988	1.844	2.821
	(1.446)	(.291)	(.452)	(.835)	(1.283)
Var (v_{0k})	3.141	4.038	2.898	3.503	2.604
	(2.946)	(2.996)	(2.285)	(2.886)	(2.530)
Log Likelihood	-72425	-72418	-72419	-72423	-72424
- 2LL change	2050.73***	19.50***	3.40*	3.69*	5.65**

[a] reference category did not vote last national election, [b] reference category employed, unemployed not looking for a job, permanently sick or disabled, retired, homemakers under education, community or military service and others, [c] dummy variable with reference category men, [d] reference category 2010, [e] The variable is divided by 1000, N: Level-3: 4, Level 2: 14, Level-1: 22,929, Standard errors in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.