# Legitimacy and trust as victims of institutionalized austerity

*A statistical analysis of persistent effects of austerity on trust in and support for the EU*

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# Abstract

The crisis in the Eurozone area and the rest of the EU has in many ways been a seismic shift in both the economic and political framework of the Eurozone area. We know quite a bit about the political short-term effects of both austerity and crisis, because of extensive research into the political consequences of the Great Recession and the earliest phases of the sovereign debt crisis, but little has yet been done to investigate the long-term effects of the crisis on the legitimacy of the EU in those countries with austerity policies.

It is this gap in the extant literature that this literature primarily seeks to fill. While I also go a long way towards confirming earlier findings of a significantly larger decline in trust and support in the austerity countries, my main contribution is to show that for both institutional trust and satisfaction with democracy this trust gap seems to be a new normal. Whether this is caused by austerity itself, or rather the effects of unemployment being worse in these countries, is something that still remains to be examined.

These findings have broader implications, because they point to something that may be a problem for the EU in the longer term: The danger of this trust gap becoming a legitimacy gap. If there is a belief among large parts of the populaces of some member states that the union does not work for them, this may give rise to populist movements that in turn would undermine the institutional framework that makes up the European Union. In this way, imposing austerity policies that were meant to promote European growth in the longer term could lead to a political weakening of the European order.

# Acknowledgments

The journey from the first hints of a research question to finished product has been a long and interesting one. It has taught me a lot, both about myself and about the research process more generally. It has not been a frictionless journey, but it is one that has been made easier by the patient help of my supervisor, Jørgen Bølstad. Without his help, especially with creating a fruitful research design, this thesis would have been far more difficult to complete. Jørgen, I owe you a great debt.

Thanks must also be extended to all the researchers at ARENA, Centre for European Research. Completing my master's thesis at ARENA has been fulfilling both socially and professionally. The lunch conversations have made the process far less lonely, and the Tuesday seminars have been invaluable in giving me access to research I probably would not have otherwise read.

Finally, the greatest thanks of all must go to my parents. They have supported me through many years of schooling, and have showed endless patience when I needed to vent my frustrations during the thesis process. They probably know as much as I do about the perils of pro-cyclical austerity policies at this point. They have been my biggest supporters, and I owe them everything.

While the thesis process is a collaborative one, any errors found in this thesis remain ultimately my own.

Martin Moland
May, 2018

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# 1 Introduction

There is little doubt that the changes brought by the sovereign debt crisis has created a seismic shift in many aspects of both Eurozone and EU governance. One such shift has been the strengthening of fiscal policy guidelines at the EU level, as well as what can arguably be called an institutionalization of a form of austerity for countries with excessive deficits.

However, it is not only through economic changes and institutional reforms that the crisis has had an effect. It has also impacted public opinion throughout the union. For a political construct like the European Union, whose chief political power might be the ability it has to inspire confidence, a situation in which some countries' populaces experience a lasting lack of faith in the EU might prove critical.

This thesis will seek to explore to what extent there are differences in the perceived legitimacy of the European Union between countries with or without externally imposed austerity. What is most interesting from a research standpoint will be to uncover the extent to there is still a larger decline in support and trust after the crisis. Thus, it will complement earlier research, such as the study conducted by Armingenon et al. (2016). This study finds a statistical correlation between increased democratic detachment from both the EU and the national democratic institutions and being a citizen of an austerity country. I want to investigate whether the perceived legitimacy of EU democracy and institutions have changed over time. I will also investigate whether support for EU membership as a general concept and support for the euro membership of large parts of the EU have been impacted by the crisis and austerity policies.

What this thesis has uncovered is that the crisis, with austerity as a contributing factor, has created persistent cleavages between the Eurozone austerity countries and the non-austerity countries. This applies both to the levels of trust in European institutions and democracy as well as support for the European Union more generally. This shows that the resolution to the sovereign debt crisis, with austerity as an important feature, has come at a price. Whereas it is still unclear if austerity or the crisis more generally caused the larger declines in support and trust, there are persistently larger declines in support and trust that could create a legitimacy issue for the European Union among the populaces of some austerity countries.

## 1.1 Research questions

I seek to expand upon the already existing literature by investigating how both support for the EU and euro membership and the legitimacy of the European institutional framework has changed in the face of austerity in both austerity and non-austerity countries.

My first research question relates to support for the European Union, while my second is related to trust in the EU institutions and EU democracy. The third will seek to investigate austerity policies and support for the euro.

Altogether, I will endeavor to answer three questions through my thesis. The first is whether or not the negative effects of the crisis were worse for the austerity countries than for others, and if there have been any effects of austerity independent of its impact on the crisis. Secondly, I will investigate whether the effect was the same for both Eurozone and non-Eurozone countries. Finally, I will seek to uncover whether the negative effects found in previous research still persist even to this day.

### 1.1.1 Support for EU membership in times of crisis

As I will seek to demonstrate, there is reason to believe that support for the EU will be substantially lower in the austerity countries, as opposed to those countries which have not been the recipients of the same obligations to reform their countries' economy and fiscal policies

The reason for this is that the periphery countries experienced an economic downturn that the austerity policies implemented in the wake of the crisis may have contributed to worsening, as a result of prohibiting expansionary fiscal policies. There is much to indicate that austerity policies did not have the intended effects in the short term that the countries were promised when they committed to structural and economic reform. One example of this is the way that the economies of some periphery countries continued contracting, or at best experienced slower growth than non-austerity countries. This shows that the policies did not create growth in the short-term. One particular example is how Portugal, a country close to exiting its economic adjustment program in 2014, at this point still experienced unemployment levels of 15.3 percent, despite a brief uptick in economic growth that appeared at the same time as a pause in austerity. What this indicates is that the austerity programs, which were imposed

upon a selection of the member states, did not better economic conditions in the short run (Blyth 2015:257).

The causal mechanism through which this might create a decline in support for the European Union among the austerity countries is that the crisis made clear to many that EU membership did not "save them" from economic hardship. Furthermore, it provided no tangible benefit in terms of increased economic well-being. This link between the perceived utility of European Union membership at the individual level and support for that same membership is found in previous research (Gabel 1998:348).

However, the same can be said of much of the EU-28 in the crisis years. Because of this, a belief that support has declined even more in austerity countries must be explained. Such a causal link could exist in the way that the austerity policies have been implemented, and how they by definition create legitimacy issues by limiting the number of legitimate policies available. In this way, I believe that EU citizens located in these countries may find that their ability to choose a different path than austerity has been curtailed to a much larger degree than those who are citizens of non-austerity countries. Furthermore, given how closely identified these austerity policies have been with the EU institutions, it is reasonable that the citizens of the PIIGS (Portugal, Ireland, Italy, Greece and Spain) countries would show lower levels of EU support than those in the rest of the member states.

I expect to find lower trust for European Union membership throughout all of the union on the heels of the sovereign debt crisis, as the crisis was felt all over the EU. Thus, even though the negative impact I expect to find in the PIIGS and austerity countries are larger than the rest of the Union, they are not the only negative impact.

This gives rise to three hypotheses:
H1. *There is a larger decline in support for European Union membership in the austerity countries compared to the rest of the EU*.
H2. *There will be a significantly larger decline in support for the EU in the Eurozone austerity countries compared to the non-Eurozone austerity countries through both crisis periods, both 2007-2012 and 2007-2016*.
*H3*. *There will be larger declines in support for the EU in the austerity countries even after the crisis, in 2016*.

### 1.1.2 Trust in institutions and EU democracy in times of crisis

My next set of hypotheses deal with the relationship between trust in EU institutions and austerity policies. I believe that one can expect to find a lower level of trust in EU institutions in austerity countries than in those countries which have not had austerity policies imposed. Thus, it is also here a matter of expecting to find results that differ in magnitude, if not in kind, between the austerity and non-austerity countries.

There is a large literature explaining how deteriorating economic contribute to a hollowing out of trust in national institutions (Lühiste 2006:480). In addition, there is a trend towards declining trust in the European Union all over the union, with distrust at one point exceeding trust in even core countries (Shore 2012:8). I expect that those countries in which the crisis was at its most severe are more likely to have citizens that display a significantly lower trust in EU institutions than those from other countries. This would mean that trust would be lower in the PIIGS countries, as this group of countries experienced a crisis far worse than the rest of the EU.

In addition to the effect of crisis itself, the nature of austerity policies can also be a contributing factor to decreasing trust, as well as decreasing support. As will be shown in my theoretical discussion of austerity policies, these policies all pointed towards lowering public expenditures and implementing structural reforms. It is not unlikely that, for some who wanted to take a different path, this restriction of the policy space could have created distrust in the European Union institutions that mandated such solutions in the first place. Similarly, a curtailing of democratic policy options, could lead some to assume that EU democracy did not sufficiently take into account their views on fiscal policy. This could lead to declining trust in EU institutions, as well as a decrease in the satisfaction with the EU democracy. The fact that periphery countries experienced a crisis of a magnitude that might normally have required expansionary fiscal policies, while these same policies were prohibited by the austerity programs, could explain lower institutional trust in the austerity countries.

The trust in institutions that mandated such policies could also be contingent on the policies doing what they were supposed to all along, to promote growth, or at least not worsen the crisis. When the austerity countries experienced the completely opposite, namely a prolonged recession in which the policies were not sufficient to create growth and lower unemployment,

it is reasonable to assume that this could have led to greater distrust. Put simply: When international institutions and austerity curtail what economic policies governments are allowed to adopt, while economic data indicate that these policies do not work, one would expect distrust in the same institutions that mandated these policies in the first place to increase.

To the extent that there were adverse economic effects of the crisis also in other austerity countries than the PIIGS countries, it is likely that the same pattern might manifest itself here. Thus, we are likely to find negative trends in institutional trust anywhere with adverse economic effects.

Again, three hypotheses follow from this:
*H1. There is a statistically significant larger decline in trust in European Union institutions and democracy in austerity countries compared to the rest of the EU. This would apply both in the period between 2007-2012 and 2007-2016*
*H2. That the Eurozone austerity countries are likely to display larger declines in trust in EU institutions and democracy than the non-Eurozone austerity countries, through both the crisis period 2007-2012 and 2007-2016.*
*H3. That there are larger declines in trust in EU institutions and democracy in austerity countries compared to non-austerity countries even in 2016, when compared to 2007.*

### 1.1.3 Support for economic and monetary union

One might, based on the same utilitarian framework as for support for the EU, argue that the crisis itself would lower support for the euro in those countries with the worst crisis. The reason would be that the euro would be seen as being one of the main reasons behind the crisis, and would be identified with the negative economic outlook. Based on utilitarian logic citizens of countries where the negative effects of the crisis were especially prominent, would be more likely to see Eurozone membership as a negative. Bearing this in mind, it is logical that citizens of the Eurozone austerity countries would be among those finding membership of the Eurozone less positive, whether they were austerity countries or not.

However, there are very specific reasons why all austerity countries, whether PIIGS or not, would exhibit signs of declining support for the Eurozone during and after the crisis. One

such reason is that the austerity policies imposed upon the Eurozone to a large degree were implemented as a way of solving the Eurozone crisis, and that the mandated policies were primarily intended to create fiscal balance and bolster the strength of the Eurozone in the event of a future crisis (Blyth 2015:230). It is possible that there would be less of a need for these kinds of austerity policies in a situation with no common currency, or if there had been a political will to buy up debt as early as 2009 (ibid:64). The reason is that deficiencies in one country's fiscal situation would be less likely to have an impact upon other countries in such a situation, as countries would not be bound by a common currency and dependent upon a common economic fate. In such a perspective, these austerity policies are an outcome of the Eurozone framework, because it has made it impossible for separate countries to use monetary policy tools to solve crises.

Thus, one can find a casual mechanism through the perceived lack of utility for this framework, as austerity policies become intrinsically linked to the Eurozone framework. This mechanism is based on the same utilitarian logic as the utilitarian theories for supporting the EU: If the European economic and monetary union is not seen as being a positive at the individual or national level, it is easy to lose faith and support in it (Hobolt and Wratil 2015:240). It is quite possible that this is what one will find in the periphery countries, like the PIIGS countries, who have had to deal with the social and economic effects of austerity policies meant to prop up the Eurozone framework. Similarly, one could expect the PIIGS countries, but also other austerity countries, to feel a similar disenchantment with the consequences of attempts to save the Eurozone. These policies have been a disadvantage to them because of the aforementioned austerity policies and it is likely that they would express this through lower levels of support for the euro.

However, this causal direction is not as clear-cut as for earlier questions. It is, in my view, likely that support for the economic and monetary union could have increased in the austerity countries because of the financial assistance provided to these countries. This was the carrot with which the EU institutions were able to wield the austerity policy stick, as getting access to bailout money was imperative to managing public debts. If citizens of the austerity countries, which were all recipient of bailout funds, see a connection between Eurozone membership and bailout funds, rather than between Eurozone membership and austerity, it is quite possible that their support for membership of the euro and the Eurozone would increase as its utility in times of crisis became apparent. Another possibility may be that national

elites, or the main thrust of the national debate, is geared towards seeing a positive correlation between membership and easier access to bailout funds. This could lead some respondents to view Eurozone membership more positively, or negatively if they dislike those same elites (Armingeon and Ceka 2014:87). In other words: The causal mechanism will look very similar to the one for decreasing support, as support within this theoretical framework is inextricably linked to the perceived utility of the policy. However, because the perceived benefits of the Eurozone framework that led to austerity could be seen as outweighing the drawbacks, by allowing for a rescue of the economy that would have been difficult without the bailout money, support is increased.

Thus, four different, and mutually exclusive, hypotheses will be put forward as possible answers to this question:

*H1. That there is a significantly larger decline in support for the euro in the austerity countries compared to the rest of the EU, through both the period 2007-2012 and 2007-2016.*

*H2. There is a significantly higher increase in support for the euro in the austerity countries when compared to the rest of the EU, through both the period 2007-2012 and 2007-2016.*

*H3. Whether there is a decrease or increase in support for the euro, it would be felt to a larger degree in the Eurozone austerity countries than in the non-Eurozone austerity countries.*

*H4. That there is a larger decline in support for euro membership between austerity countries and non-austerity as late as in 2016, after the crisis.*

### 1.1.4 Thesis structure

I will first discuss the theoretical background to my thesis, and situate my thesis in relation to the already existing literature on changing trust in and support for the EU and EU institutions.

I will then detail the methodology used, and the limitations it might pose in this study. I will first discuss difference-in-differences modelling, which will be my main tool of analysis, before proceeding to an operationalization of the theoretical concepts that will be investigated in my thesis.

The next section will detail the empirical results of my analysis. I will then discuss the empirical findings in a more analytical way, by discussing both problems with ascribing causality and more philosophical issues related to my causal mechanisms.

This will then be followed by a section in which the robustness of the results is tested, by testing whether the result is sensitive to an outlier like Greece and whether the country groups legitimately could be considered groups of countries. Testing the robustness in this way is especially important, given that it will provide knowledge about what weaknesses can be found in the model. I will then conclude by summarizing my conclusions, and pointing to a future research agenda for each of my research questions.

# 2 Theoretical overview

Much of this thesis will be dedicated to discussing effects of crisis and austerity policies, and their assumed effect on things such as support for continued EU membership and trust in organizations such as the European Commission and the European Central Bank. This requires, first of all, a discussion of exactly what austerity policies are, and how they have been administered in the context of the sovereign debt crisis.

This introduction will first discuss how the financial crisis made its way to Europe and became a sovereign debt crisis. Furthermore, I will discuss the historical origins of austerity policies in Europe, with a special focus on the German tradition of so-called "ordoliberalism". I will then discuss how these austerity policies have been implemented and with what consequence. I will furthermore expand upon the theories underpinning my research questions, and give an overview of the relevant debates in these areas.

## 2.1 The crisis itself and its immediate response

Whereas one might conceivably trace the roots of the European sovereign debt crisis to the crisis in the American financial markets as early as 2006-07, the first signs of the crisis that was to roil the European market first became apparent in late 2007. What was revealed in this period was the fact that the lack of readily available money in the global banking system also would cause problems for European banks. As a result, national governments needed to recapitalize banks, thus creating a bond between banks and sovereigns that would prove costly to taxpayers, as it required governments to shoulder a larger debt burden than would have been the case without the crisis (Blyth 2015:52). The result of this was an increase in the debt that governments in many countries had to take on in order to pay for increasingly large bailouts.

Handling these bailouts at the national level required access to international credit. As international credit lines dried up, countries like the Eurozone periphery countries, with banking systems dependent on external financing, saw themselves increasingly at risk of a large collapse. In other periphery countries, like Spain, the decline in sectors like construction led to a decline in economic growth (Lane 2012:55). While the mechanisms that led to this precarious fiscal situation differed across the periphery countries, the end result was mostly

similar: A large decline in growth and problems with external financing made the fiscal situation difficult to handle for the periphery countries' governments, especially when faced with the prospect of costly financial sector bailouts. This led the countries involved to seek financial assistance from the EU level, through so-called bailout funds. It was thus a lack of available credit that transformed what was originally a financial crisis limited to some sectors of the economy into a sovereign debt crisis.

The first years of the crisis response was marked by a distinctly Keynesian approach, where countries all over the world suddenly sought to stimulate their own economies in order to boost aggregate demand. The Spanish example is instructive, in that its government committed a sum equivalent to seven percent of its own GDP to stimulate the economy. However, this period of the crisis would prove to be short-lived, as German and British governments tried to halt the return of European Keynesianism (ibid.:55-56). The German authorities advocated for an austerity in line with ordoliberal orthodoxy. It is this orthodoxy that will be discussed further.

## 2.2 Ordoliberalism and its political impact

The German concept of ordoliberalism, which can be summarized as a form of economic neo-liberalism, was important as an ideological precursor to making austerity the only acceptable policy response to the debt crisis (Hillebrand 2015:7). However, it was originally created for a different situation. Growing out of a cartelized economy, it sought to create a rules-based economy. Simultaneously, it wanted to focus on supply-side economics and long-term economic stability in the domains of fiscal and monetary policy (ibid:10). Thus, the focus is not on short-term stimulus of the economy, but rather on how the government can create an economic framework that facilitates growth.

This is in sharp contrast to a more active crisis management favored by Keynesian economists. Keynesian economics would advocate a direct stimulus of the demand-side of the national economy, along with expansionist fiscal policies to counteract the negative effects of a downturn, while the ordoliberal school of thought is dedicated to creating a more hospitable business environment without the interference favored by Keynesians (Nedergaard and Snaith 2015:1096). As a logical consequence of this, an ordoliberal and a Keynesian response to for example the financial crisis of 2008 would differ markedly as Keynesian

would favor the bailouts and stimulus packages that have typically been the stock-in-trade of governments, wanting to boost demand. An ordoliberal response would typically favor more long-term changes in the economic institutions that could serve as a framework for future growth.

## 2.3 Implementation of austerity policies

The ideology described above dovetails to a great degree with the kind of fiscal policy framework that has been in effect since the implementation of the Maastricht Treaty (Busch et al. 2013:3). One could argue that the specific economic adjustment programmes that have been imposed upon some countries after the sovereign debt crises also bear some of the hallmarks of the ordoliberal school of thought. This sub-section will describe these policies in more detail, and the effect they are argued to have had.

One prominent example of such ordoliberal policies is found in memorandums of understanding (MOUs) signed between the EU-level institutions granting financial assistance and the countries that were the recipients of the same financial assistance. The Spanish memorandum is an instructive example of a larger trend: It lays out how Spanish authorities will only receive financial assistance if they agree to implement a program of labor reforms establishing a more flexible labor market, along with reforms of the taxation system and the budgetary deficit procedures (European Commission 2012:15). The ordoliberal influence is apparent in how mostly the supply side of the economy is the focus of reform. In addition, it expressly forbids an expansionist fiscal policy with the goal of increasing the activity in the economy as a whole, if this conflicts with fiscal restraints.

This ordoliberal recipe for crisis resolution has been criticized because it did not provide the desired results: While it could be argued that one would have experienced a correction to Southern European overreliance on foreign credit even without the austerity measures, the adjustment programs did little to bolster the crisis-stricken economies. As an example, Greece's GDP contracted in 2011 and 2012, by 6.9 and 4.7 percent respectively, thus becoming one of the worst hit by the crisis at that particular point in time. At the same time, the creditor country Germany's GDP grew by 3.0 percent and 0.7 percent in the same period, despite the onset of a new recession (Busch et al. 2013:4). This shows that there was clearly a negative effect of the crisis in the periphery countries that was larger than those effects felt in

the core countries and the Eurozone, and that there to a certain extent is a correlation between those countries in which austerity policies were in place during the second recession and those in which the crisis was most acutely felt.

Furthermore, it was not only at the macro level that austerity countries in the Eurozone's periphery experienced a downturn. Even though inequality was reduced in the Southern European periphery states after austerity, as public-sector wage cuts reduced incomes in the top percentiles of the income distribution, income growth was also reduced. (Perez and Matsaganis 2017:5-8). This indicates dramatic effects of the austerity policies on the course of the crisis. Such effects might, as will be later shown, cause a decline in both support and trust in the EU institutions.

In addition to the economic effects, there were important democratic consequences of the same austerity policies, as fiscal policies were all of a sudden imposed upon national governments by external actors (Armingeon and Guthmann 2014:424). Thus, some of the core state powers traditionally given to European nation-states, such as the powers of budgeting, were curtailed in order to impose greater fiscal discipline upon the periphery countries. There is evidence that this led to a detachment from national democracies (Armingeon et al. 2016:12). However, the fact that very unpopular austerity measures could be attributed to a European level, could cause a similar democratic detachment from institutions at the European level. The reason is that there is a very clear link between the EU institutions and the austerity policies, as seen in the memorandums of understanding. This causal mechanism is something that will be explained in the literature review.

One should not expect the same level of decline from all austerity countries, but rather a decline in the group seen as a whole. The reason for this is that austerity has taken on multiple forms in the different countries, with countries such as Greece needing a larger fiscal consolidation than countries such as Portugal or Italy due to previous mismanagement (ibid.:427). There is thus reason to moderate the assumption of a decline in austerity countries, by also taking into account the fact that austerity might have taken on different tenors in different countries. This is something that must be factored in when discussing the results. One example of this is the way in which Latvia rebounded from its particular crisis in early in the sovereign debt crisis (Staehr 2013:300). The country experienced very few long-term effects of their crisis, and non-Eurozone countries were also by definition freer than the

Eurozone austerity countries to use monetary policy tools. One such example is the possibility of devaluations to boost the economy, a possibility which was not available to Eurozone austerity countries (ibid.:297) The fact that there were different policy options available to the austerity countries suggests that we could separate the treatment countries in both a Eurozone and a non-Eurozone group, as they had different tools with which to handle the crisis.

Thus, while one should not conclude that unemployment would not rise even in the absence of austerity policies and that the precarious situation some austerity countries found themselves in would not have made the situation worse in the face of a new recession, it appears obvious that austerity policies had economic consequences that were not beneficial to periphery economies. How this fact could lead citizens of those countries to lower their support for the EU will be explained in closer detail in the section detailing the theories behind support for the EU.

## 2.4 Institutionalizing austerity

One important aspect of the institutional response to the crisis has been the way in which the austerity policies first implemented through the sovereign debt crisis have become the only acceptable policy in times of crisis. This has happened through both a strengthening of the framework of the Economic and Monetary Union that was already present even before the crisis first struck the Eurozone, as well as through the ratification of treaties such as the Treaty on Stability, Coordination and Governance of the Eurozone.

Dani (2017:421-422) points out that the more stringent budgetary processes that have been put in place both as a result of the introduction of the EMU and as a part of the crisis resolution serves as an encroachment upon national democratic processes. This could have been felt more acutely in countries facing a crisis that necessitated fiscal assistance, and with it the imposition of austerity policies. In addition, the demands for regulatory reform of the labor market in these countries could further have been seen as an encroachment upon national sovereignty.

# 3 Literature review

Questions of support for the EU have been extensively studied since the birth of the European Communities. As Gabel (1998) and de Vreese and Boomgaarden (2005:61-65) show, they have also been studied from a large number of perspectives. Similarly, from the limited studies of Baltic states done by Lühiste (2006) to the studies of post-crisis trust in EU institutions (Roth et al. 2013), there is a large literature on institutional trust. My thesis will be a complement to this already extensive literature.

In order to ground my research questions in the relevant literature, I will discuss what previous research tells us about support for European integration and institutional trust more generally. This discussion will primarily be focused on research explaining how my dependent variables can be plausibly impacted by economic crisis. This will help explain why austerity countries could have larger declines in support and trust than the non-austerity countries. However, it will not provide a general account of every theoretical contribution dealing with my theoretical concepts of interest. Such an account would be far too expansive, and would contribute little to what this thesis is trying to achieve.

## 3.1 Support for the EU

Gabel (1998) lays out most of the important non-utilitarian theories for explaining support for the European Union. The first is the cognitive mobilization theory. The theory states that people with higher education are more likely to support European integration and the EU, as they are better able to relate to politics at an abstract level. Inglehart (1970) even goes so far as to state that the link between income and support for Europeanization actually goes away once you control for the difference in education (51). This is an early indication that there is a connection between levels of education and support for European integration.

Inglehart, Rabier and Reif (1991, cited in Gabel 1998:334) have posited a possible link between postmaterialist, that is non-utilitarian, values and support for European integration, but the evidence is inconclusive. They have however found a partisan divide in support for the EU, with those on the left being less favorably inclined towards the EU than those on the right. Similarly, Franklin, Van der Eijk and Marsh (1995, cited in Gabel 1998:339) find evidence from referenda in France, Ireland and Denmark of a link between support for

integration and support for the government. There is, however, little evidence that this holds outside of the context of referenda.

Gabel's final hypothesis links support for the EU to the utilitarian benefits of membership to each individual. The reasoning behind this is that those who are more likely to support both the principle of EU membership and specific policies of European integration are those with something to gain from the same support. Gabel finds statistically significant results indicating that there is a correlation between being in a highly paid position and supporting membership of the European Union (Gabel 1998:346). While one may benefit from membership even without being a highly paid professional, this is an example that those who are most likely to benefit from integration policies and EU membership are the most likely to support it. This theory is of most consequence to my thesis, as I primarily expect the effect of austerity and crisis on support for the EU to be brought about as a result of a perceived decline in the benefits of EU membership.

Such a perceived decline in the benefits of membership will be true to an even greater degree of the austerity countries. One would assume that those who are citizens of austerity countries would find less utilitarian value in further economic and monetary integration, as it could be seen as a reason for more persistent recession in some countries. Similarly, one could assume that the same causal relationship, in which austerity worsens economic conditions in some countries, could create a lack of support for EU membership. Such a correlation is supported by the findings of Armingeon and Ceka (2014: 99).

If utilitarian reasoning is the primary means by which one seeks to evaluate membership of the EU, it is likely that this would lead austerity countries to adapt differing levels of support for European Union membership. Given that the economic outcomes of austerity would not be the same in different austerity countries, it is likely that the perceived decline in benefits would differ between the austerity countries. One specific example of this could be that the periphery countries Greece and Spain experienced higher than average unemployment rates throughout the entire crisis period when compared to the rest of the Eurozone, and close to present day. This is in contrast to another austerity country, namely Latvia, which today has an employment rate above the average (Meyermans and Nikolov 2017:43). A logical conclusion would be that countries like Greece and Spain would experience a larger decline

in the support for the EU than for example Latvia and other austerity countries where the effects of the crisis were less severe.

However, there are indications that this utilitarian perspective on EU membership is seen through the prism of the nation states and their respective systems. Previous research indicates that models accounting for the strength of national identities and views on multiculturalism are more powerful when it comes to explaining support for integration at the individual level than those only looking at utilitarian benefits (Hooghe and Marks 2005:431). This would seem to call into question the conclusion that citizens of the EU come to their conclusions about support for EU integration through rational choice. Rather, both their feelings towards their own national community as well as elite cues on the benefits of European integration may be important in shaping support for the EU (ibid:437).

This possibility of elite and media cues having an impact should not be discounted, as studies indicate that respondents who are primed to think in specific ways on specific issues are more likely to respond in line with these cues (ibid.:425). One such cue is likely to be media representations of austerity policies. Evidence from Spanish media indicates that "Brussels" has been used as something of a synonym for austerity policies the national debate (Murray-Leach et al. 2014:27). While this was not the uniform response of the Spanish media to the austerity programs, they show that media representations of the EU as an actor imposing austerity in an undemocratic fashion have been a part of the public debate in some austerity countries. This could create a debate conducive to lowered levels of support for the EU.

Another possibility is that EU membership has lost its luster in the minds of people all over Europe, whether they are citizens of an austerity country or not. The mechanism behind this would be that a crisis like the sovereign debt crisis, which has impacted the EU as a whole, has led to problems for other countries than the austerity countries. The fact that the downturn has been felt by a large part of the Union could possibly ensure that people in all parts of the EU are seeing less of the economic benefits of an EU membership. This could lead to us seeing the same downwards trend in support for the EU all over the union, rather than the effect being isolated to the austerity countries or indeed the Eurozone.

## 3.2 Support for the euro

As is the case for support of EU membership, research shows a clear line between utilitarian reasoning and potential support for the euro. This utilitarian reasoning as a predictor of support for the euro became even more prevalent as the euro crisis began. This suggests that the crisis itself made utilitarian evaluations of euro membership more likely (Hobolt and Wratil 2015:250). Given this utilitarian shift after the onset of the crisis, and the fact that austerity could be seen to compound economic crisis, there is a reason to believe more people in austerity countries would find no benefit to their euro membership.

However, there is also some evidence that motivations for supporting the euro will wary depending on whether a country belongs to the Eurozone or not. Outside the Eurozone, concerns related to national identity will be more important for structuring support for the Euro, as opposed to the utilitarian determinants that mainly structure support inside it (Banducci et al. 2009:576). If this is true in this case, it is not necessarily given that support for the euro would be structured along similar lines in the Eurozone and non-Eurozone austerity countries.

I wish to expand upon previous research finding lower support for the euro outside the Eurozone than inside (Hobolt and Wratil 2015:244). I will analyze whether the same relationship can be found between austerity countries inside and outside the Eurozone. These countries have all, by virtue of having received financial assistance, all been found to have suffered particularly adverse economic effects of the crisis. This will serve as an expansion, both in the time period investigated and the scope of the research, which will be useful in order to learn more about how austerity policies potentially impact support for the euro as a common currency.

## 3.3 Explaining institutional trust and satisfaction with democracy in the EU

These next paragraphs will be dedicated to explaining and unpacking the theories related to how trust in institutions might be impacted, and how there might be a relation between crisis and austerity and decline in institutional trust. Furthermore, I will also lay out a plausible causal mechanism through which the satisfaction with how democracy works in the European Union would be adversely affected as a result of the austerity policies implemented as a consequence of the sovereign debt crisis.

### 3.3.1 Trust in institutions

Previous research into the connections between economic crisis and institutional trust indicates a connection between the two, as citizens' trust in national institutions tends to diminish as economic conditions deteriorate (Lühiste 2006:480). However, this study only explores the question from the perspective of the Baltics, without analyzing trust in the European institutions to which the Baltic countries had only recently been added as members. I will thus test whether similar relationships can be found for the European institutions. Two things potentially follow from this paper: That the same relationship would hold for the EU institutions, and that trust would decline further in the Eurozone.

There is some empirical evidence that trust in the EU has declined as a consequence of the crisis. As an example, in 2011, distrust in the EU outgrew the feeling of trust in even some founding countries, such as France and Germany (Shore 2012:8). This is empirical evidence that feelings of distrust grew in parallel with, if not necessarily as a result of, the crisis. The same applies when looking at national institutions, as the Eurozone crisis almost removed any increase in trust in national parliaments that appeared after the financial crisis, initiating a period of decreasing trust in both European and national parliaments (Roth et al. 2010:9).

This trend is not only found at the national level. Armingeon et al. (2016), in their work on the sovereign debt crisis' effect on trust in both national and European democracy, segment members of the European Union into different groups. They show that perceived detachment from the democratic process is felt more acutely inside the Eurozone than outside, and that it is in the so-called PIGS countries (Portugal, Ireland, Greece and Spain) that this detachment

was felt most acutely throughout the early phase of the crisis (11). In the same way, previous research has found larger declines in trust in the EU periphery when compared to the core EU countries (Roth et al. 2010:11). The correlation between increasing unemployment and falling trust in all countries (ibid:18), could indicate large and lasting differences between austerity countries and the rest, as the recession was more severe in these countries. However, it could also be reflective of a debate in which the EU level is seen as purveyors of an austerity platform, a framing which would resonate more deeply in the austerity countries. Respondents in the austerity countries could then use such cues to differentiate between the national and European response, and use this negative framing of the EU response as a reason for expressing lower levels of trust (Armingeon and Guthmann 2014:424).

Research from the first phase of crisis show the largest declines in institutional trust in places like Greece and Portugal (Roth et al. 2013:19; Matthijs 2014:111). The same can be said for diffuse support for the EU, where studies find that austerity countries have experienced steeper declines in support for the EU following the crisis (Armingeon and Ceka 2014:94). It is of great interest to understand whether this indicates a permanent divergence between the different parts of the EU, or whether the effect will normalize in the absence of crisis. My research design allows me to use newer data, as it only utilizes differences between two points in time. This will allow me to establish whether a larger decline in trust among the austerity countries, when compared to the non-austerity countries, has become a permanent fixture of EU opinion.

In other words, there is evidence to suggest that the crisis itself has impacted trust in institutions. However, a knowledge gap still exists when it comes to investigating and explaining the longer-terms effect of austerity on trust. This applies both to effects of the crisis and austerity itself. It is likely that both increased unemployment and a distinct effect of the austerity policies themselves could have contributed to a declining trust: The Fiscal Compact and related legislation could be construed as an entrenchment of the same austerity policies, with some of the institutions being asked about having the power to institute and oversee the implementation also of future austerity programs (Chalmers 2012:666-667). Austerity countries have felt the adverse consequences of these policies. It is possible that an entrenchment of policies correlated with increased unemployment can lead to a persistent decline in trust in the austerity countries.

## 3.4 Satisfaction with democracy

There is a great overlap between institutional trust and trust in democracy, with Pennings (2017:85) referring to the two concepts merely as a specific and a diffuse form of the same institutional trust. Additionally, one's view of European democracy is often reflective of the same view of the national democratic institutions: Previous literature finds a correlation between evaluations of one's own country's democracy, as well as critical evaluations of EU institutions, and your opinion about EU democracy (Karp et al. 2003:287). This is especially true of respondents with low political knowledge, who may be more likely to use evaluations of national democracy as a proxy measure for their view of EU democracy. In this sense, it is further evidence that democracy satisfaction is a multi-faceted phenomenon.

As mentioned, there is much to suggest that the economic crisis has caused a democratic detachment in many of the Eurozone periphery countries, and that this detachment is felt both for allegiance to the national and European democracy (Armingeon et al. 2016:11). While this may partly be a reflection of a lack of ability to disaggregate national and European democracy when answering surveys, it may also reflect how evaluations of national democracy interface with evaluations of European democracy, as indicated by Karp et al.

It is a logical inference that a lack of trust in specific institutions would cause greater distrust in democracy in the austerity countries. The European Union institutions, such as the Commission and the European Central Bank, have implemented these MOUs to great popular protest. The MOUs serve as a constraint on the policy making of these countries, by making for example an expansive fiscal policy more difficult than it would have been in the absence of such stringent fiscal oversight by the European Union institution. The fact that this has served as something of an entrenchment of policies that have been unpopular at the national level could, in my opinion, create a development in the direction of larger democratic detachment in the austerity countries.

The fact that this serves as a constraint on all austerity countries, as it is one of the defining feature of economic adjustment programs, indicates that one should find larger and more persistent declines in the austerity countries than one would find in countries that have only experienced a crisis. The causal mechanism through which there would be a decrease in satisfaction is, as I envision it, that the number of policies available to the democratically

elected national institutions would be limited by austerity programs. It is likely that the EU institutions would be associated with these policies. Thus, there is reason to expect a decline in satisfaction with European Union democracy as respondents in the austerity countries to a lesser degree than before believe that the European Union institutions act in their best interest. A negative correlation between trust in institutions and democracy satisfaction has been found in previous literature (ibid.:288). I believe it to the same mechanism that will be operational here, where a lack of faith in institutions lead to democratic detachment. I furthermore believe this to be found to a larger degree in the austerity countries.

However, given the fact that institutional trust may have faltered in all EU countries, a group comprising both austerity and non-austerity countries, it is likely that declines will be found in all countries. The main question of interest is then whether the austerity countries have been impacted to a much larger degree than other countries.

## 3.5 Knowledge gaps in the literature

The preceding paragraphs all have as a main assumption that there will be a difference in the trend for the austerity countries and the non-austerity countries, with there being a larger decline in trust and support in the austerity countries. This is based on a belief that negative economic effects of the crisis are felt more acutely in these countries, which could lead to greater declines in trust and support when compared to a control group that has not signed on to economic adjustment programs.

There is a lot of research into how the crisis itself has impacted support for the EU and trust in institutions. However, little has been done to examine how persistent this impact has been. Thus, the knowledge gap I wish to fill in the research into support for the euro, the EU and institutional trust is two-fold: First, if there is still a persistent negative difference in support and trust when analyzing situations where unemployment in the austerity countries have reverted back to something like a pre-crisis normal. Secondly, I want to use the available data to explore whether there is such a thing as an “austerity effect”, or if larger declines are primarily brought about because of the effect of austerity on unemployment.

## 3.6 Chapter summary

This chapter has shown that there are reasons to believe that the impact of the crisis, and also of the austerity policies, could have repercussions for the support for the EU as a whole. These repercussions could be especially strong in the countries that have had austerity imposed, as these countries are also among those in which the negative social consequences of the crisis have been most acutely felt. While most of the theory related to support for the EU in the context of the financial and sovereign debt crisis has dealt with the earliest phase of the crisis, much is still unexplained when it comes to how persistent the effects of austerity and economic adjustment has been. I hope to expand upon existing literature by showing the differences in support between austerity countries and other EU countries.

There is also reason to expect that trust in institutions should be negatively impacted by both crisis and austerity policies. There is a great deal of research indicating falling trust in institutions after crisis, and that this relationship also holds for the present case. While these findings are quite interesting, they share the same limitation as those showing a falling support for the EU: They are not able to show that this is a permanent difference, present even when the crisis stabilized in the latter years. Thus, my thesis will expand upon existing research by indicating whether the falling trust was merely a dip, or whether there is a permanent difference between the austerity and non-austerity countries in terms of support for the EU and the euro, as well as European Union institutional trust.

# 4 Research design

I want to investigate the impact of austerity on a wide range of variables. While there are many reasons to choose to study issues of trust and support, not least the importance to the survival of the European project itself (Armingeon and Ceka 2014:85), other considerations have also played into the decision about which research questions to pursue: The concepts I have chosen to study are part of a long line of previous literature, and there is data available that makes it possible to construct longer time series to measure changes. While data availability has not been the key factor in choosing what variables to analyze, a lack of comparable data across time would have made it impossible to analyze changes taking place before and after the crisis. This has been the case for other phenomena that also would have been of theoretical interest. In the end, I believe the concepts and data I have chosen to analyze allow me to advance the research into the effects of austerity in important ways.

In this chapter I will discuss the application of a so-called difference-in-differences design to the analysis of these concepts, as well as discussing any potential drawbacks to this design from a purely analytical perspective. Furthermore, I will discuss the operationalization of my theoretical concepts. This operationalization will then be subject to theoretical debate, to shine a light on whether they are adequate to explain every aspect of my research questions.

## 4.1 Difference-in-differences modeling

Here, the austerity countries and the rest of the EU, constitute different groups that were exposed to the same external shock, in the form of a sovereign debt crisis. The main difference between these two groups is that one group was subject to austerity policies that arguably would have contributed to prolonging the crisis. Thus, my research design must achieve a two-fold purpose: It must measure the differences in the groups' reactions to the same external shock. Secondly, it must control for country-specific variables that could have an impact on the dependent variables.

One methodological approach for accomplishing both of these things is the difference-in-differences methodology. The difference-in-differences model uses data from two groups at two different points in time to measure the effect of a policy that affects only one of the groups. These two groups are the austerity countries and the non-austerity countries that

constitute the rest of the EU. One effectively surveys four different groups using a quasi-experimental design based on observational data: The austerity countries before and after the austerity was implemented, and a control group consisting of the rest of the EU countries. Of these, only one, the austerity countries after austerity is implemented, is impacted by austerity itself (Lechner 2010:2).

The benefit of this method is that it can allow us to establish somewhat robust causal relations, while correcting for issues of country-specific heterogeneity that might impact the results. This solves a large methodological issue in this situation, as both fixed effects, that is effects that are persistent features of a country, like a persistently higher than average support for the EU, could logically impact the dependent variables. The fact that the design accounts for fixed effects while also answering questions about differences between the groups is the main reason this design has been chosen. The fact that somewhat robust causality can be established in cases where the assumptions are met is also a benefit of this method.

## 4.2 Assumptions of difference-in-differences modeling

While this research design is not a true experimental design, the terminology of "treatment" and "control" groups commonly appear in literature using this method. Throughout this thesis the word treatment group will be used to refer to the austerity countries, while the control group will be the rest of the countries in the EU.

What this method does, at its core, is measure effects of a policy that affected only one group. This allows us to measure whether there are differences in how countries with and without austerity have reacted to the crisis. However, in order for it to be used to identify causal effects between the treatment and the outcome some key assumptions must be fulfilled.

A starting assumption is that the outcome without austerity would only be composed of a time effect that is common to all countries, and a fixed effect for each country. What this means is that the trends for each country group would be parallel without the treatment. This assumption is a key assumption in the difference-in-differences methodology (Angrist and Pischke 2009:229-230). The assumption of linearity after the crisis will be difficult to test empirically, as counter-factual data by definition are impossible to find. However, the plausibility of this assumption can be strengthened by establishing whether the trends

between the country groups were parallel before the crisis. Such an assumption can be visually tested by studying time series graphs of the dependent variable before the crisis. This can help us make inferences about whether a parallel trend would exist if the treatment had not been administered.

Another underlying assumption is that austerity policies, not country-specific variables, cause larger declines in some countries. There is, on the face of it, little to unite the austerity countries both economically and socially, apart from them being impacted to a greater degree than other countries by the Eurozone crisis. As an example, there is plausibly very little in the economic makeup and EU history of the two countries of Spain and Romania that unite the two, except for them being recipients of financial aid and austerity policies. This is an indication that austerity is the variable they have in common that could plausibly cause them to display different levels of trust and support than in the non-austerity countries.

However, there are variables apart from austerity that could cause different declines both between austerity countries, and between austerity and non-austerity countries. A key difference could be the potentially larger unemployment in some countries, especially among the PIIGS countries. This can potentially impact the dependent variables and call into question whether the observed differences are caused by austerity policies, unemployment levels or a combination of the two. Another problem might be that specific characteristics of the countries, such as for example differing levels of education and general support for European integration, impact the variables.

As mentioned, one of the benefits of this method is that it accounts for the latter of these problems, namely country-specific effects. The design is in reality a variation of the fixed-effects model, and accounts for country-level differences that remain a fixture of the country itself. The premise is that without austerity, outcomes would be a function of a state effect and a crisis effect that is identical for all countries. This is formally expressed through the equation $E[Y_{0ist}|s,t] = \gamma_s + \lambda_{t,}$, where s denotes states and t denotes period. As shown in this equation, the expected outcome Y for a control group country, without austerity policies, will be a function of the fixed country effect $\gamma_s$ and the effect of time, $\lambda_t$, which will be common to all of the countries (Angrist and Pischke 2009:228). The fixed effect component of the equation is thus expressed by a country effect.

The effect of the austerity policies on the treatment group is found by analyzing differences between the pre- and post treatment values of the treatment and control groups. By only concerning itself with differences between two points in time, the design accounts for fixed effects. This provides for a robust design in cases where all other assumptions are fulfilled. Using the Eurozone austerity countries as an example, the approach is, more succinctly expressed through the following equation (ibid:229):
$\{E[Y_{ist}|s = EUROZONE\ AUSTERITY, t = 2012)] - E[Y_{ist}|s = EUROZONE\ AUSTERITY, t = 2007]\} - \{E[Y_{ist}|s = NON\text{-}AUSTERITY, t = 2012)] - E[Y_{ist}|s = NON\text{-}AUSTERITY, t = 2007]\} = Average\ treatment\ effect$.

Thus, in a situation where the crisis is the only change taking place at the same time, the causal effect of the treatment can be found by subtracting the dependent variable mean change for the control group from that of the treatment group. Here, one assumes that the difference for non-austerity countries in 2012 would have been the same as for the austerity countries in the absence of a treatment, such as austerity policies.

I will analyze the periods 2007-2012 and 2007-2016. The two treatment groups will be the austerity countries inside and outside the Eurozone. Using this method, I will ascertain whether the declines in trust and support in the austerity countries are larger than in non-austerity countries. Additionally, I will test all other assumptions, so as to possibly be able to ascertain whether there is a causal effect of either the crisis or austerity on declines in trust and support.

## 4.3 Methodological issues and efforts to mitigate them

Some aspects of the difference-in-differences methodology may present problems in this specific study.

One problem methodologically is that the difference-in-differences design performs optimally when the policy is the only change happening at a given time. During the crisis, the introduction of austerity policies was but one of many changes taking place at the same time in countries such as Greece. Notably, these same years were marked by a situation with rising unemployment and falling wages for large parts of the population. This increases the possibility that the effect observed and attributed to austerity policies is merely an effect of the crisis being especially severe in some of the countries. Such a confounding variable might make establishing a causal link between austerity and decreased trust or support difficult.

Without accounting for this issue, it might be impossible to draw conclusions about anything other than what is happening as a result of the broad effects of the crisis, as divergences between the austerity and non-austerity countries could be caused by higher unemployment. The problem, as mentioned, occurs when trying to isolate the effect of austerity from the effects of crisis and unemployment. To at least go some way towards minimizing this problem, it will be necessary to control for the unemployment levels of each country. This will be done by introducing an unemployment variable measuring unemployment levels in each country both before and after the introduction of austerity. While it is less common to use control variables in difference-in-differences designs like this, in this case it is crucial to actually establish any direct effects of austerity.

Another problem with the methodology used in this specific case is that the austerity countries entered into austerity programs at different times. This makes it more difficult to establish precise starting points for the treatment period in all countries. For this reason, I will use data from both 2007, as a pre-treatment period, with 2012 and 2016 as the two treatment periods. Defining 2016 as a post-crisis year solves a methodological conundrum. This conundrum is that most countries that have been signatories to memorandums of understanding prescribing austerity entered into these agreements and concluded their participation in the austerity programs at different times (European Commission, no date). In 2016 much of the larger unemployment levels had subsided, and most countries had exited

their austerity programs. This means that defining this year as a post-crisis year minimizes the possible impact of austerity countries that have still not concluded their participation in the programs exerting influence on the coefficients. The exception is Greece, which had not exited post-program surveillance at this point (European Commission 2016). Thus, while using 2016 minimizes this problem, it is necessary to take into account that one country is still very much impacted by austerity policies. This can potentially skew any results.

Another potential methodological issue is the fact that austerity policies by definition are common to entire countries, while the data is collected at the individual level. Given that all respondents have been given a dummy variable denoting whether they are citizens of an austerity country or not, the different levels are unlikely to negatively impact my analysis. However, it is another example of my research design deviating slightly from a traditional difference-in-differences design.

## 4.4 The use of OLS regression

The coefficients are all estimated through the use of ordinary least squares (OLS) regressions. The variables are recoded so that negative attitudes towards the issue in question, whether it is trust in the European Commission or support for European Union membership, have been given low values and positive attitudes have been coded with the higher values.

In addition, the values of the variables have been standardized between 0 and 1, enabling us to analyze coefficients approximately as if they were proportion or percentage changes. Included in the variables are a third value, 0.5, for those respondents with a neutral stance towards the issue. This is in line with an approach employed by Bølstad (2015:28), in a study on possible covariations in support for the EU between groups of countries. In my study, respondents who have been given the value of 0.5 are those who have previously been coded with missing values because they have answered "Don't know" to any questions that include this as a relevant middle category. Including these will increase the information available on which to base the analysis. Not seeing support or lack of support as binary outcomes, but rather incorporating those who have a neutral stance in the data material through a third category, is a well-established convention in this literature (McLaren 2007:11). However, where the variables have included more nuanced alternatives that in themselves allow for a more nuanced response, "Don't know" has been coded as missing.

Analytically, I operate from an assumption that a move from for example tending to trust the European Commission to answering "Don't Know", is indicative of becoming more critical. In the same vein, to move from not trusting or supporting those same institutions, to a position of being uncertain, can be interpreted as being more positive. This has the dual benefits of both preserving important information as well as nuancing the analysis.

### 4.4.1 Arguments for using OLS

There are good reasons to use OLS if at all applicable, as long as the assumptions are fulfilled. The primary reason is that the model is intuitively easy to interpret when compared to more nuanced and complicated model specifications, as it shows a linear relationship between the predictor and outcome variables (Field 2013:294). This allows for a more intuitive interpretation.

In addition, it is easier to understand to what degree a model describes a relationship between independent variables and their dependent variable when using an OLS regression. The difference-in-differences model, which utilizes OLS, shares this characteristic, given that one is merely estimating four different means. This simplicity is a powerful argument for using OLS regression and the difference-in-differences design, rather than far more complex models in which both interpretation of the regression coefficients as well as goodness-of-fit are more difficult to understand. Based on this, I have chosen to use OLS, despite the data having more than two categories, and not being continuous. However, this requires the OLS assumptions to be fulfilled. In the following, I will discuss whether this is the case.

### 4.4.2 OLS assumptions and whether they are fulfilled

The first assumption is the assumption of normalcy of the sampling distribution of the OLS estimator. The central-limit theorem asserts that in large distributions, where the samples have more than 100 units, the requirement of a normally distributed sampling distribution will be met in all but the rarest of instances (Field 2013:311). Given that the samples drawn for all my surveys are substantially larger than this, one could safely assume that the requirement is met in this case. Thus, with samples as large as this, concerns about the effects of a non-normal sampling distribution on confidence intervals and significance testing are largely invalidated.

In this case we cannot assume independence of observations, as autocorrelation will likely be present. This means that the errors on the outcome variable for one year found for one respondent could be correlated with the error term for the same variable in a previous year, as well as possibly correlated to the errors of other respondents from the same samples (Stock and Watson 2012:575; Field 2013:176). In this case, one should assume that there will be an autocorrelation within a group, as one would assume respondents from the same sample to

exhibit similar behaviors when answering questions, as well as between years. This will be handled by clustering standard errors along country-years, so as to correct for the fact that respondents from the same sample are likely to be more similar to each other than to respondents from other samples. Clustering the standard errors in this way, thus taking into account both a possible group error component and a time component may make the standard errors appear larger. However, it will increase the confidence we can have in the coefficients' significance (Donald and Lang 2007:221). This will render the problem of autocorrelation less present in the analysis (Beck and Katz 1995:636).

Collinearity among the two independent variables crisis and austerity, represented by the crisis effect and difference-in-differences estimator, can also be a problem. Multicollinearity potentially render estimates less precise, given that the estimate of one variable's impact on the dependent variable is more or less influenced by another variable (Field 2013:886) However, there is reason to believe that the large number of units in all of the different groups that will be estimated in the model insulates against this problem. The reason is that there will be many units that will differentiate between the different "cells" that make up the models that will be analyzed. This makes potential collinearity less of a problem than if there were fewer units.

Another potential problem is heteroscedasticity. Such heteroscedasticity, while very difficult to entirely avoid, can bias the standard errors of the estimates, making for example significance tests biased and hypothesis testing more difficult and imprecise (ibid.:311). I have chosen to introduce clustered standard errors, clustering on country-years, to reduce both the possibility of problematic bias on the coefficients as well as autocorrelation. Failing to do this will decrease the confidence one can have in the standard errors of the estimate, by rendering significance testing more difficult (Beck and Katz 1995:636). This would be problematic, as it could lead us to reject hypotheses based on faulty assumptions about either the significance or non-significance of a coefficient.

Additionally, weights have been applied to adjust for relative differences between the sizes of the universes of Northern Ireland and East Germany compared to the rest of their rest countries. Weights have also been used for all other countries to ensure that each sample provides a representative picture of each respective universe.

What this allows me to do is to analyze Germany and United Kingdom as a whole at the aggregate level, while simultaneously being able to give a representative picture of the views of these countries. More generally, weights for other countries have been included so as to avoid for example over-sampling of some age groups having the effect of showing erroneous correlations between variables. This is important, as for example demographic factors such as age could plausibly impact dependent variables like support for the EU. Over-sampling in terms of demographic variables like age could thus be quite problematic.

Altogether, this indicates that the assumptions of OLS are largely met. This makes it defensible to use ordinary least squares to analyze this data.

## 4.5 Data selection

I have chosen to use Eurobarometer data to measure all my dependent variables. The data consists of surveys from 2002 through 2016, with the relevant variables from each of the surveys having been merged into a single file. This dataset is a selection of both spring and fall surveys, which have been chosen because they include the variables that I seek to analyze through this crisis. I have chosen to use surveys from both the fall and spring rounds of the Eurobarometer, and have included a dummy variable to indicate what season each of the surveys are from. Additionally, some non-standard Eurobarometer surveys have been included in the data set. The reason is that several of the less commonly asked questions are only asked in non-standard Eurobarometer surveys.

The reason I have chosen to use Eurobarometer studies is that they present researchers with the opportunity to create long time series of identical questions. This is a benefit stemming from the fact that many of the same questions are posed across time. This allows us to present fluctuations and changes in respondents' levels of support and trust throughout the entire crisis. The fact that the European Commission provides two Eurobarometer surveys every year thus presents us with an ideal opportunity to analyze changes in EU citizens' opinions.

However, the use of Eurobarometer data presents some challenges from a methodological perspective. These concerns become especially salient when using Eurobarometer to measure attitudes about different political and sociological phenomena. The first problem is that the survey draws a new, random sample for every survey conducted (Höpner and Jurcyzk

2015:4). This is important to bear in mind, as the data should not be treated as panel data, but as a series of representative samples from the EU countries. In itself, this is not a problem as long as one is aware of the limitations of the data structure, and what kind of analysis the data allows. A far bigger problem is the tendency to change the wording of questions, and even to neglect to ask specific questions in some time periods (ibid). I have avoided the first problem by including only variables whose wording is largely unchanged, to facilitate easier comparison. However, the problem of questions being unasked is a problem when it comes to the EU democracy satisfaction question, which was not asked at all during any of the 2008 Eurobarometer surveys. This is not a problem in the analysis, as this year is not analyzed through regressions, but it may have an impact upon the precision of the relevant graphical timeline.

In addition to the use of Eurobarometer data, I have also used yearly unemployment data from the European statistics agency, Eurostat. These data measure the levels of unemployment at the time of reporting in a given year as a percentage of the active population, not the increases between two periods. These will be used as controls at the country-level, so as to control for the omitted variable bias that unemployment may cause in my regressions.

## 4.6 Chapter summary

The difference-in-differences method is a strong method, both for dealing with fixed effects and for establishing causality. However, it is not without its challenges. One example of this is the fact that I need to ascertain that it is in fact a common trend in the pre-treatment period. What I mean by this is that we must discuss whether there would be great divergences from a common path if there were no austerity. While it may be difficult in some instances to argue that there would have been a common trend in the absence of treatment, finding a probable common trend is essential to identifying any causal effects.

Despite these difficulties, I believe the strength of the fixed effects aspect of the model outweigh its weaknesses in other regards. For this reason, I will use difference-in-differences methodology as the analytical and methodological toolbox of this thesis. I have also chosen to cluster the standard errors, to correct for possible autocorrelation.

# 5 Operationalizations

Another important methodological choice is the operationalization of the theoretical concepts. This is a process by which the theoretical concept one seeks to study is broken down into its constituent parts, by searching the available data for variables that would measure the content of the theoretical concept (Adcock and Collier 1995:531). Here, I will seek to operationalize the concepts "support for the EU", "trust in EU institutions and democracy" and "support for the euro". While these concepts have been chosen both because of their theoretical interest and the data availability provided by Eurobarometer studies, one must discuss whether the indicators offered serve as true operationalizations of the concepts.

An operationalization can be valid in different ways: If an indicator has measurement validity, it fully encompasses the diverse range of content embodied in the theoretical concept. Criterion valid indicators correlate to a great degree with other indicators that are known to measure the phenomenon we wish to measure. Lastly, construct validity is a form of validity in which indicators correlate with indicators we theoretically expect them to correlate with (ibid:537). I will mainly discuss to what extent the chosen variables conform to what is known as measurement validity, i.e. the extent to which the multi-faceted theoretical concepts are reflected in the chosen indicators.

Before operationalizing the dependent variables, I will first discuss my operationalization of the concept "austerity country". This operationalization is important because these countries constitute the treatment group to be analyzed for a crisis effect. I will then discuss each of the theoretical concepts to be analyzed, and strengths and benefits of the indicators I have chosen to represent them.

## 5.1 Operationalizing the austerity countries

It is not uncommon to speak of the Southern periphery countries as the only "true" austerity countries. This is an approach hinted at by for example Bouvet and King (2013:212) in their analysis of the crisis. This will also form a starting point for my operationalization of the concept "austerity countries". These countries evidently fit this designation, as they have all entered into formal agreements with the European Commission, in which the promise of emergency funds is contingent upon structural reform (European Commission, n.d.).

In addition, Italy can be perceived as having been indirectly under something like EU conditionality during parts of the crisis. The reason is that the changing of government, which saw Prime Minister Silvio Berlusconi replaced by former European Commissioner Mario Monti, came about partly because of direct European pressure. Additionally, a letter sent from the ECB to the Italian government in 2011 called for fiscal and regulatory reform in exchange for central bank support in the case of an unmanageable debt crisis. This invites the question of whether Italy was a country with full autonomy over its fiscal policies at this point, or if they should be counted as a country with imposed austerity policies from the EU level (Hopkin 2012:45). Indeed, the letter has all the hallmarks of an MOU, as it makes emergency support contingent on regulatory and fiscal reform. The fact that the country could be perceived as being under de facto, if not de jure, European conditionality at this point calls for them to be added to the Eurozone austerity country group. This addition means that the Eurozone austerity group will be composed of the so-called PIIGS countries.

However, countries outside the Eurozone have also accepted these economic adjustment programs. Given that one might expect austerity to have an impact on for example trust that is independent of how severe the crisis was, it is necessary to analyze the changes in these countries as well as the PIIGS group. As of now, the countries that have received contingent financial assistance are Cyprus, Greece, Hungary, Ireland, Latvia, Portugal, Romania and Spain (European Commission, n.d.).

An instructive example of why these countries should also be considered austerity countries is Romania. Neither a Southern nor an early member of the European Union, there is still very little question that the financial assistance they received make them an austerity country in the way the term is conceptualized here. As a condition for first getting access to European

financial assistance in 2009, they were obligated to sign an MOU ordering a reduction of the public wage bill, cutting the budget deficit, and accepting a freezing of pensions (European Commission 2010:6). Supply-side reform of the economy, as exemplified by these policies, is a mainstay of these economic adjustment programs, and shows that countries outside of the Southern European region that was the public face of the crisis should also be considered austerity countries. The same prescription was also ordained for the economies of Hungary and Latvia (Blyth 2015:221). This calls for including them in the group of austerity countries, even if they are not fully comparable to the Southern periphery countries.

Thus, my thesis is conventional in studying the PIIGS countries as a uniform group. Where I will advance the current research is by studying the imposition of austerity itself as a potential cause of differences. This means that all countries who have committed to fiscal reform in order to qualify for emergency funds will be counted as members of one of my two treatment groups, the Eurozone and non-Eurozone austerity countries.

An exception to this case will be made in the case of Cyprus, which might ordinarily have been counted as a Eurozone austerity country: As it only entered the austerity group in 2013, they will be treated as a control group country in both periods. While this is not a perfect solution, as it could create larger declines in the control group than otherwise would have been the case, it is preferable to including Cyprus as a treatment country in only one period. Doing this would reduce the comparability of the Eurozone treatment group between periods.

What this means is that my austerity, or treatment group, will consist of Greece, Hungary, Ireland, Latvia, Portugal, Romania, Italy and Spain. Greece, Ireland, Portugal, Italy and Spain will constitute the Eurozone austerity country group. Hungary, Latvia and Romania will be members of the non-Eurozone austerity countries.

### 5.1.1 Operationalizing support for the EU

The concept "support for the EU" is multi-faceted, and may be impossible to fully measure through only one indicator. As an example of the diffuseness of the concept, research indicates that support can be expressed through support for both the principle of membership, the speed of integration and the direction of it (Hooghe and Marks 2005:427). Using these aspects as a starting point, a researcher must first make a decision about what aspect of the

concept to study. Here I am primarily interested in measuring support and appreciation for EU membership generally.

This requires us to look for Eurobarometer variables that adequately measure a general "support for the EU", rather than support for specific EU policies or aspects of integration. One such question is the question asking "Generally speaking, do you think that our country's membership of the European Union is a good thing (1), neither good nor bad (2) or a bad thing (3)?" In my opinion, this question is formulated so as to ask about general feelings towards EU membership, and by extension about the EU itself. It is this sentiment that I want to measure. This does not mean that the question can be taken as telling us something about what respondents believe about the speed of integration or specific policies. However, it does in my opinion adequately measure the concept that I want to analyze, namely a general support for EU membership.

Another benefit to choosing this question, as shown by Bølstad (2015:28), is that it allows for the construction of long timelines. The fact that it appears in at least one Eurobarometer survey every year, allows us to chart and analyze the development in support throughout the entire crisis period. The same cannot be said of other questions, which for example ask about either the speed of integration or support for specific policies. The fact that it is frequently is asked is essential to my research design.

An important question is whether seeing something as "a good thing", which in my opinion is asking for the respondents' assessment of the benefit of the membership, is the same as supporting membership at an individual level more generally. Even at the general level, there are many aspects of the EU membership that one could alternately support or oppose, and there is no guarantee that someone supporting would support every political facet of it. Similarly, one might believe that membership is a good thing without uniformly supporting every possible policy adopted by the EU. This requires us to look at possible alternatives to the proposed operationalization.

The alternative to this question, if one desires to measure general support, is one asking whether they see a benefit of their country's EU membership. In my opinion, these questions are both asking for utilitarian appraisals of the membership at the individual level. Thus, they are likely to trigger similar responses in the respondents. The reason for opting for the

question about whether EU membership is seen as a good thing is that, by asking about a "good thing" rather than "benefit", it explicitly avoids wording that might steer people in the direction of utilitarian reasoning. Choosing this question allows us to avoid a question whose most important word has a utilitarian connotation. Such connotations can be problematic because they lead the respondents to respond in a certain way (Schumann and Presser 1996:280). A question asking about membership as a "good thing" may make it more likely that even those who either support or oppose membership on different grounds than the utilitarian will find it easier to respond to the question.

## 5.2 Operationalizing institutional trust

I further want to investigate whether there has been any impact on trust in the European Union, either in democracy itself or in specific institutions, as a result of crisis and austerity. This means that I will have to operationalize both a general trust in EU democracy, as well as in specific institutions.

### 5.2.1 Democracy satisfaction

Trust in institutions and democracy can take on both a diffuse form, as a general attachment to the democratic system, as well trust based on more specific evaluations of the performance of certain institutions (Pennings 2017:85). In practice, this means that respondents might distrust certain institutions, but still feel a general attachment to democracy in the European Union at a general level, or vice versa. It is my belief that a concept as general as "trust in EU democracy" must be measured using indicators that set out to measure general satisfaction, rather than one with specific institution.

In my opinion, the Eurobarometer question that comes closest to measuring this general trust in democracy is the question "And how about the way democracy works in the European Union?" The possible answers are Very satisfied/Fairly satisfied/Not very satisfied/Not at all satisfied. There is also an answer for those who wish to reply Don't know.

One of the big benefits of this question is that it is regularly used as a Eurobarometer survey question, thus allowing for comparison across time. Another clear benefit is that it asks for support for democracy at a general level, rather than for specific institutions. It has also been

used as an indicator in previous analyses of detachment from European Union democracy (Armingeon et al. 2016:24).

Nevertheless, this indicator also comes with some drawbacks. One issue is that respondents might not successfully disaggregate trust in European democracy from trust in national democracy. This problem first became known in previous research into EU democracy satisfaction (Karp et al. 2003:277). So, while it may be a good indicator of the diffuse support that I seek to measure, it may also end up presenting the respondents' view on European democracy as reflected in their view of national democracy. These two concepts may be difficult to disaggregate, even if there is a separate question for national democracy satisfaction, without explicitly asking respondents not to take their view of national democracy into account. The fact that this was not done in this case, means that we must exercise caution in the analysis.

Another important question is the extent to which people are able to successfully articulate what institutions actually constitute the EU democracy. While questions about what influence the respondent feels he or she has over EU affairs would be a possible alternative question, this would present its own problems. As an example, people could feel that their voice is heard through the Council of the European Union, as national governments articulated positions in line with their own beliefs, or through the parliamentarians. If different institutions voiced different opinions, people could be susceptible to answering that their voice was not heard, depending on which voice they listened to before answering. This shows that even while there are some problems associated with the measurement validity of the original question, the alternatives could be equally problematic.

Thus, my conclusion is that while there are some problems associated with the measurement validity of the democracy satisfaction question, it is reasonable to use it, as it asks respondents to make an overall assessment of how they believe democracy works in the European Union.

### 5.2.2 Trust in EU institutions

Where I previously sought to measure generalized support for EU democracy, my other trust indicators will attempt to measure the specific satisfaction with different EU institutions. Thus, I will measure respondents' trust in institutions important to EU crisis resolution. These will be the European Commission and the European Central Bank, two of the three members of the so-called "Troika". In addition, I want to explore whether any changes in trust in these pro-austerity institutions are reflective of a general anti-European sentiment. This will be done by comparing their results to those found for trust for the European Parliament, which advocated for other solutions than austerity policies. Using the framework set forth by Pennings (2017:85), I am here seeking to measure democracy satisfaction through trust in specific institutions, rather than democracy satisfaction at the general level.

This trust in institutions is regularly measured by Eurobarometer surveys. One question that measures such a specific trust in institutions is the one asking "And please tell me if you tend to trust or tend not to trust these European institutions." This question has separate variables for the European Commission, the European Parliament and the European Central Bank. These questions have previously been used in the literature on the development of institutional trust after the sovereign debt crisis (Roth et al. 2013:4). One benefit of these questions is that they are repeatedly used in surveys, allowing us to construct time series. In addition, a clear benefit is that the questions ask respondents to make an assessment of their trust in specific institutions, rather than a more general assessment of "the EU institutions". This could minimize the problem of respondents being uncertain about what the question actually asks them to respond to. Furthermore, clarity in terms of what institutions are asked about means that we are more likely to measure trust in each of them than if the question had only asked about "EU institutions" more generally.

A potential problem arises as no common understanding of what trust in an institution actually entails is made explicit by the question. While some respondents might perceive the word "trust" to be a question about whether the institutions are corrupt, others might perceive it to be asking for an appraisal of whether the institution is competently working on their behalf. While it is this latter perspective that this study tries to measure, one cannot be sure

that this is the universally accepted understanding of the word "trust". This is a measurement validity problem that makes analysis more difficult.

Another challenge is that respondents might not know enough about institutions like the European Commission or the European Central Bank to be able to assess their level of trust in them. There are reasons to doubt, as Höpner and Jurczyk (2015:9) point out, that everyone possesses the requisite knowledge to give an informed answer to many of the Eurobarometer questions. And even if they actually admit to knowing too little, they are still asked for their informed opinion about the same issues (ibid.). This calls into question whether those who respond that they do not trust or trust the European Union institutions do so with the necessary knowledge to form an informed opinion. These concerns might be valid to an even larger degree for the European Central Bank, a largely technocratic institution with a complex mandate, which may not be fully understood by all respondents.

A third issue is the potential for acquiescence, or the tendency to respond affirmatively to those questions that include a positive response category (Schuman and Presser 1996:205). The problem, in this case, could be that people will answer that they trust the EU institutions without basing this on anything but a willingness to answer questions affirmatively. This calls into question whether what we are observing is a real effect, or rather a respondents' psychological predisposition to answering that one tends to trust an institution. Such acquiescence becomes an even greater problem if statements are ambiguously worded, or if the respondent has no real knowledge on which to base an informed opinion (ibid.). The fact that the theoretical concept of trust is not operationalized in the phrasing of the question might make this a problem. In practice, this means that what we believe to be expressions of trust might simply be respondents wanting to answer questions in the affirmative.

In conclusion, it is not given that what we are measuring is the respondents' belief in the competence of the European Union institutions. It is not even clear, when asking about trust, that we measure the same thing in all countries and all years. However, this question gives us a possibility to construct time series of trust in specific institutions that is found with few other questions. This calls for using this variable to measure specific support for institutions over time, despite some of its methodological shortcomings.

## 5.3 Operationalizing support for the euro

The so-called Eurozone framework has become more complex after the crisis, with the addition of both institutions and new rules (Hobolt and Wratil 2015:243). This means that any researcher seeking to measure support for it must first come to a conclusion about which aspect of the Eurozone framework one wishes to focus on.

There is empirical evidence that the euro has been the most salient aspect of the public debate after the crisis. One example of this is seen in the German political sphere, where Alternativ für Deutschland made an exit from the Eurozone a cornerstone of its 2013 parliamentary campaign (Murray-Leach et al. 2014:12). This is an indication that the single currency has been the main focal point of public debate. As a result, it is more likely that this would be the part of the economic and monetary union for which public opinion would change. This makes it the more interesting theoretical concept to measure.

This requires us to operationalize support through a question measuring support for only the single currency, in the most direct fashion possible. The most relevant Eurobarometer question for this purpose is "What is your opinion on each of the following statements? Please tell me for each statement whether you are for or against it ... A European Monetary Union with one single currency, the EURO ..." In addition to its clarity in only asking about the single currency, the fact that the question has remained unchanged for many years makes it easier to establish whether there have been changes before and after the crisis.

This question, by making explicit reference to a key part of the concept I seek to measure, appears to have measurement validity. However, one must be careful not to overextend the explanatory power of the question when analyzing the results. For example, the question should not be read as an indication of public opinion about all parts of the Eurozone framework. This is, in itself, not a problem, as what I am seeking to measure is mainly the support for the euro as a single currency.

## 5.4 Chapter summary

I have explained why I have operationalized my theoretical concepts in particular ways. One especially problematic operationalization is the one operationalizing trust in specific institutions. The reason for this is that the wording of the question is quite vague, and does

not present respondents with a single definition of trust. This makes it likely that respondents might have chosen to apply their own definition of trust to the question. Furthermore, it is possible that many of those who answered the questions did not do so out of reasoned opinions about trust, as one could potentially assume that many might have only vague views about either the trustworthiness or competence of bodies such as the European Central Bank.

There is no doubt that all operationalization in this thesis have their shortcomings. However, the questions used are all, in my opinion, clear and allow for the construction of long time series. Wanting to construct time series makes it more difficult to use other forms of statistical analysis that require more than one variable to measure the concept, as not all variables that measure the same latent attitude are found in the same surveys. This is the problem with for example using an additive index, that would represent multiple aspects of for example support for the euro through one variable (Hair et al. 1998:117). The benefit of my chosen operationalizations, which all make use of only one indicator to measure the concepts, is that they make it easier to establish longer time series for my dependent variables. This makes it possible to compare changes happening before and after the crisis.

# 6 Analysis

This chapter will analyze whether the values on my dependent variables differ markedly between the austerity countries and the non-austerity countries. However, I will also look for effects of a true austerity effect that is independent of unemployment. In this way, this chapter will both seek to investigate whether the declines are in fact larger in the austerity countries, both in the short and long-term, but also whether this effect is in any way attributable to austerity itself. Thus, this chapter will attempt to answer the research questions set forth in my introduction.

## 6.1 Charting changes in unemployment

Many of my hypotheses presuppose a longer recession and higher unemployment in the austerity countries. In order to establish whether this assumption holds, we must first visualize the development in total unemployment in the different country groups. This will be done in the figure below. Here, the red lines and data points represent non-austerity countries, the green non-Eurozone austerity countries and the blue the Eurozone austerity countries.

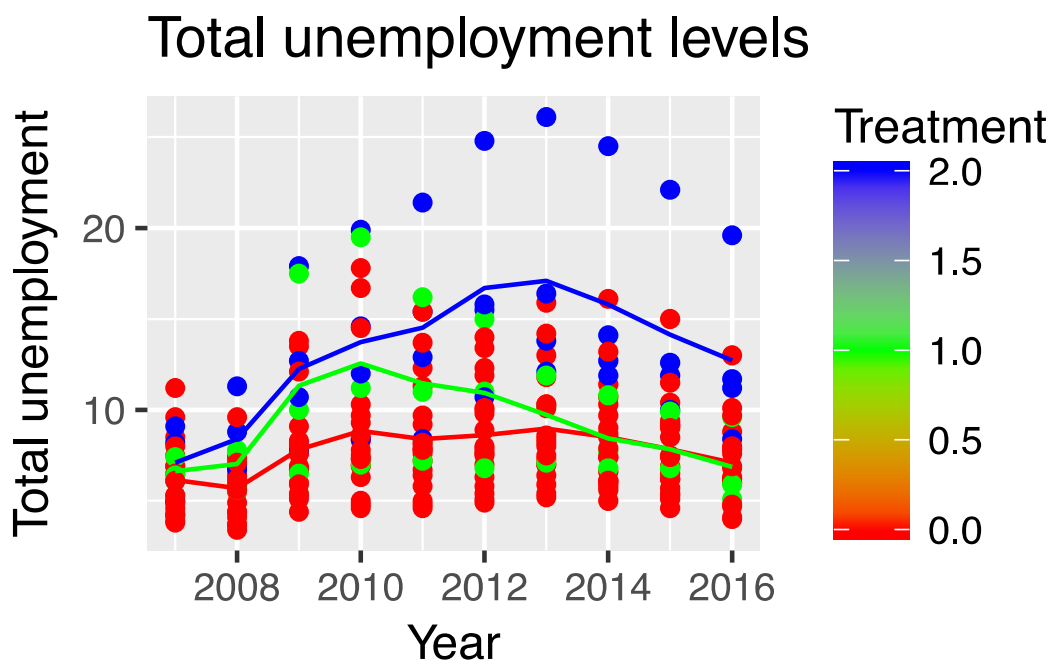


**Figure 1: Total unemployment levels throughout the crisis. Note: Blue line indicates Eurozone austerity country mean, green line indicates non-Eurozone austerity country mean and red line indicates non-austerity country mean.**

It is clear that there is larger unemployment in the austerity countries. This is especially the case for the Eurozone austerity countries, even though the non-Eurozone austerity countries show a higher degree of unemployment in the early phases of the crisis. As shown, while the mean unemployment in the Eurozone austerity countries declined in the latter phase of the crisis, it is still persistently higher than that found in the other country groups.

This supports a hypothesis that more persistent declines in the dependent values in the Eurozone austerity countries could be explained by higher unemployment, possibly caused by austerity policies, in these countries. However, for non-Eurozone austerity countries the unemployment trend seems to be one of steadily falling unemployment throughout the crisis. This may make it more difficult to say that possible sustained declines in any of the non-Eurozone austerity countries are caused by an unemployment which austerity might have contributed to.

## 6.2 Analysis of the dependent variables

Throughout all regressions, I will first discuss parallel trends. I will then show regressions for the periods 2007 – 2012, as well as 2007 – 2016. These will both be shown at the individual level, and controlled for unemployment using aggregate level data. This allows me to control for the differences in the severity of the crisis, which might impact the regression coefficients by creating an omitted variable bias at the individual level, and to capture any direct effects of austerity at the aggregated level.

Throughout all tables, regressions 1 and 3 will refer to the period 2007-2012, with and without control for unemployment. Regressions 2 and 4 will model the period 2007 – 2016. Regressions 1 and 2 model individual-level data, while regressions 2 and 4 model data aggregated at the country level, so as to ensure that they are compatible with unemployment data. These data are only available at the country level, and are gathered yearly by the European statistics agency, Eurostat. While these data allow us to control for the economic situation of the country, it is a problem that the dataset only contains 54 units.

The control group in these regressions will be composed of countries both within and outside the Eurozone. The reason for this is that there are similar public opinion responses to the

crisis in both groups. This to some degree eliminates the need to use a control group composed only of countries inside or outside the Eurozone. For example, the early phase of the crisis was marked by a similar decline in trust in all EU countries (Armingeon and Ceka 2014:93). While there were certainly some outliers in both directions, there were very few examples of countries experiencing developments completely contrary to the trend in this period. This indicates that comparing the austerity countries inside and outside the Eurozone to a sample of control countries from both groups is unlikely to problematically skew the results. However, Croatia has been excluded from the data, as they only became members of the EU in 2013, near the end of my treatment period.

### 6.2.1 Support for the EU

Given that my treatment period is set to last between the years 2008 – 2016, years which cover the entirety of the crisis, it is imperative to establish whether there is a parallel trend between the treatment countries and the rest of the EU before the crisis began. The PIIGS belong to the Eurozone austerity group, with the three remaining countries constituting a non-Eurozone austerity group. These are my treatment groups. The control group consists of all the other EU states, minus Croatia. I have also chosen to further divide the treatment countries into both a non-Eurozone and a Eurozone austerity group.

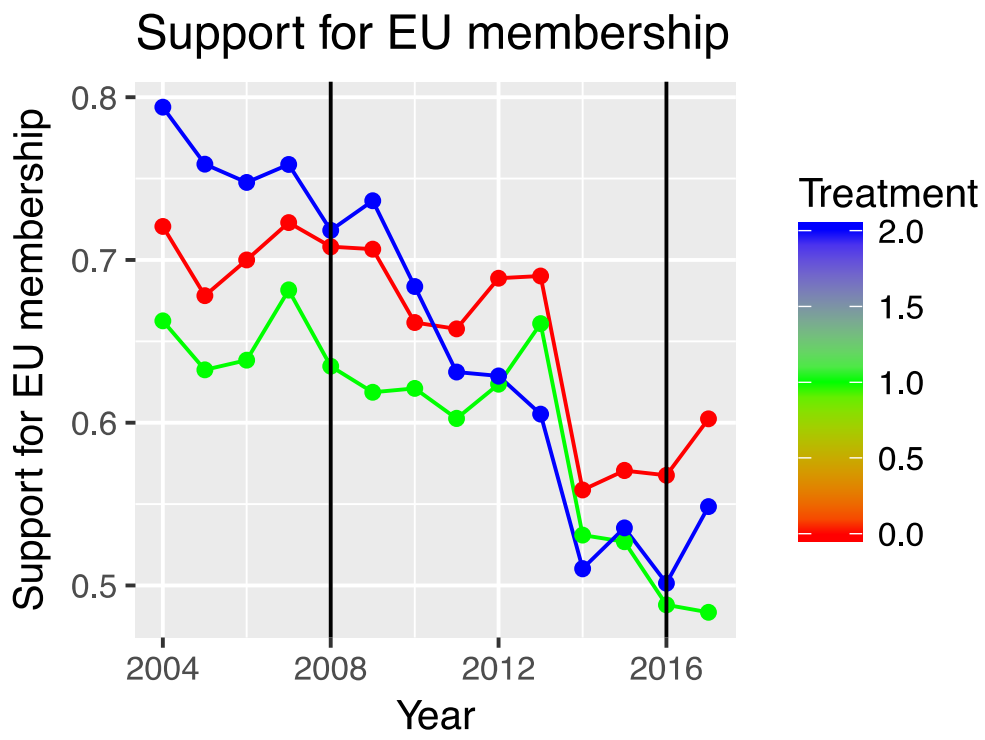


**Figure 2: Trends in EU support before and after crisis. Blue line is Eurozone austerity country, red is non-austerity country and green is non-Eurozone austerity country.**

Here red lines represent the control group, the green line represents the non-Eurozone austerity countries and the blue line represents the Eurozone austerity countries. Given the deviations between the groups, it is difficult to draw any conclusions about whether the parallel trends assumption is actually fulfilled. It might thus be difficult to establish a crisis or austerity effect, as there is already a negative trend in support for the EU among all groups.

Regression table 1 includes regressions at the individual level for both 2007-2012, as well as 2007-2016. It also includes regressions with and without controls for unemployment.

| | Support for EU membership | | | |
|---|---|---|---|---|
| | (1: 2007-2012) | (2: 2007-2016) | (3: 2007-2012) | (4 2007-2016) |
| Baseline difference, Eurozone austerity countries, 2007 | 0.030 | 0.030 | 0.010 | 0.013 |
| | (0.039) | (0.039) | (0.047) | (0.054) |
| Baseline difference, Non-eurozone austerity countries, 2007 | -0.036 | -0.036 | -0.046 | -0.043 |
| | (0.065) | (0.065) | (0.062) | (0.072) |
| Change, non-austerity countries | -0.027 | -0.139*** | -0.034 | -0.145*** |
| | (0.014) | (0.022) | (0.035) | (0.038) |
| Difference-in differences estimator, Eurozone austerity countries | -0.106*** | -0.135** | -0.108 | -0.090 |
| | (0.020) | (0.049) | (0.077) | (0.090) |
| Difference-in-differences estimator, non-Eurozone austerity countries | -0.033 | -0.052 | -0.031 | -0.045 |
| | (0.017) | (0.048) | (0.088) | (0.101) |
| Total unemployment | | | 0.001 | -0.005 |
| | | | (0.005) | (0.006) |
| Initial level, non-austerity, 2007 | 0.724*** | 0.724*** | 0.727*** | 0.767*** |
| | (0.027) | (0.027) | (0.038) | (0.048) |
| Observations | 77,965 | 78,287 | 54 | 54 |
| Adjusted $R^2$ | 0.009 | 0.042 | 0.060 | 0.393 |
| *Note:* | | | | *p<0.05; **p<0.01; ***p<0.001 |

**Table 1: Regressions showing differences in EU support in all groups. Regressions 1 and 2 are individual-level data, with no unemployment control. 3 and 4 are aggregate-level with controls for unemployment.**

As shown, both individual-level regressions show significant effects for both non-austerity countries and the Eurozone austerity countries. What this means is that there is both a general decline in support for EU membership in the non-austerity countries after the crisis, as well as a larger decline in the Eurozone austerity countries.

The decline in the non-austerity countries does not seem to be statistically significant in the first period of the crisis, as shown in regression 1. This decline is only statistically significant in the period modelling the entire crisis. However, there is a significantly larger decline in support in the Eurozone austerity countries, when compared to the non-Eurozone countries. The larger decline in the Eurozone austerity countries when compared to the non-austerity countries is significant in both periods. This strengthens the hypothesis that declines in support would be larger in the austerity countries, but undermines it by only finding an effect in some austerity countries.

Because regressions 1 and 2 do not control for unemployment, it is possible that unemployment and crisis severity serves as an omitted variable causing the larger declines in the Eurozone austerity countries. It is likely that the pro-cyclical nature of austerity policies contributed to a worsening of the crisis. The higher unemployment in the Eurozone austerity countries during the entire crisis period could have contributed to the larger declines in these countries in both phases of the crisis. Whether there is in fact such a correlation can be substantiated by investigating the correlations for the first phase of the crisis, where unemployment rose the sharpest. This is done in figure 3.

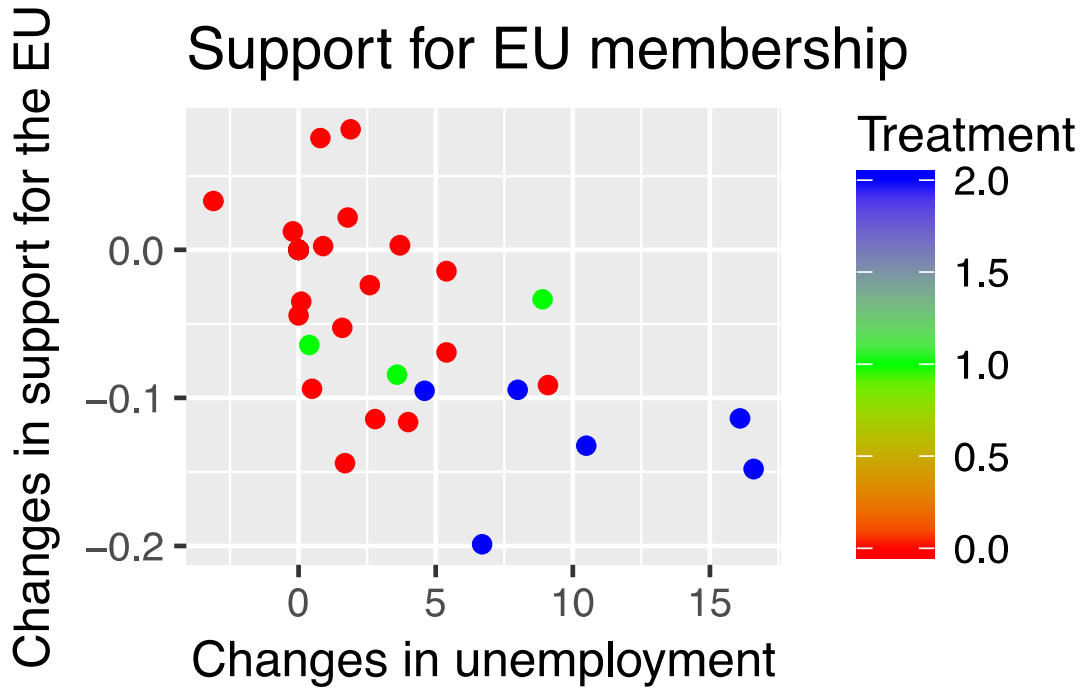


**Figure 3: Changes in unemployment correlated with changes in EU support, 2007-2012. Red points indicate non-austerity countries, green points indicate non-Eurozone austerity countries and blue points indicate Eurozone austerity countries.**

As shown, there seems to be a correlation between larger increases in unemployment and larger decreases in support for EU membership. This seems to strengthen the hypothesis that higher levels of unemployment in some of the austerity countries in the Eurozone could have contributed to larger decreases in support for the EU in the first phase of the crisis. It seems a reasonable assumption that the same explanation could be possible for the second phase.

Regressions 3 and 4 show the development in support when controlling for the severity of the crisis, using the absolute level of unemployment in each country-year as a proxy for the economic situation. When controlling for unemployment, the significance of the direct effects of austerity seem to disappear. An interpretation of this is that declines are mainly caused by unemployment, and could have been the same in the absence of austerity. However, such an analysis ignores the possibly weak statistical power of regressions 3 and 4, due to the low number of units. It is possible that the coefficients, which indicate quite large effects, actually show a direct effect of austerity which does not reach significance due to the low statistical power. This is a reasonable assumption, given that the coefficients are still quite large, especially for the first phase.

In conclusion, there seems to be a larger decline in support among the austerity countries during the crisis. This is felt to a greater degree in the Eurozone austerity countries than in the other groups of countries. Controlling for unemployment yields no direct effect of austerity, but as the statistical power of the analysis is quite small, such an effect may still exist. In this way, most of my hypotheses are supported.

### 6.2.2 Support for the euro

My second research question relates to how austerity has impacted support for the euro. The first analysis will be of a period ranging from 2007 to 2012, before I will consider the period as a whole, so as to look persistent cleavages in support for the EU between the austerity and non-austerity countries even after the crisis has ended.

However, I will first analyze whether there is a parallel trend between treatment and control group countries. This will again be done by analyzing the period from 2004 to 2007, so as to include as much information as possible about the trends before the crisis began.

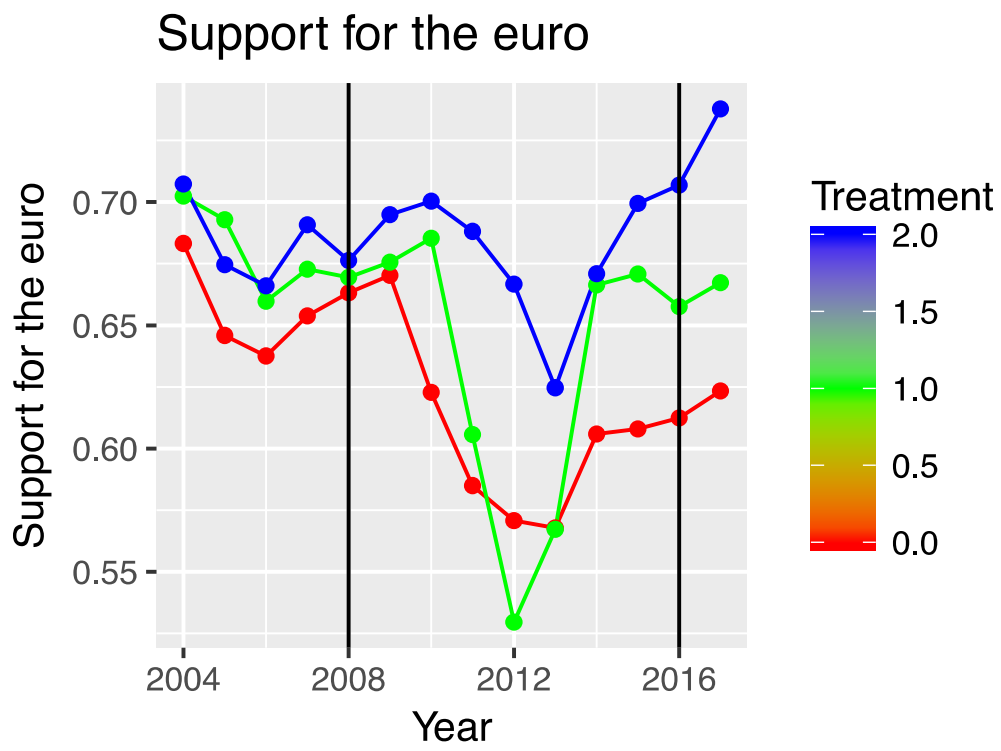


**Figure 4: Trends in support for the euro. Blue is Eurozone austerity, green is non-Eurozone austerity and red is non-austerity.**

It may be possible to fulfill the parallel trends assumption in this case. As there is largely a concurrent trend before the crisis, we may assume that there would be a parallel trend without treatment. However, it is difficult to categorically state that there would be no deviations from a parallel trend in the absence of treatment, even though I assume that the parallel trends assumption is fulfilled.

Regression table 2, showing differences between the austerity and non-austerity countries will allow us both to say whether there are any differences in support between the two country groups in both periods and if there are any direct austerity effects.

| | Support for the euro | | | |
|---|---|---|---|---|
| | (1: 2007-2012) | (2: 2007-2016) | (3: 2007-2012) | (4: 2007-2016) |
| Baseline difference, Eurozone austerity countries, 2007 | 0.039 | 0.039 | 0.0002 | -0.004 |
| | (0.074) | (0.074) | (0.082) | (0.085) |
| Baseline difference, Non-eurozone austerity countries, 2007 | 0.037 | 0.037 | 0.014 | 0.011 |
| | (0.083) | (0.083) | (0.108) | (0.112) |
| Difference, non-austerity countries | -0.089*** | -0.043 | -0.087 | -0.048 |
| | (0.024) | (0.032) | (0.060) | (0.060) |
| Difference-in differences estimator, Eurozone austerity countries | 0.057 | 0.054 | 0.055 | -0.009 |
| | (0.061) | (0.053) | (0.134) | (0.140) |
| Difference-in-differences estimator, non-Eurozone austerity countries | -0.059* | 0.013 | -0.065 | 0.016 |
| | (0.026) | (0.130) | (0.154) | (0.159) |
| | | (0.130) | | (0.159) |
| Total unemployment | | | 0.0003 | 0.009 |
| | | | (0.008) | (0.010) |
| Initial level, non-austerity, 2007 | 0.647*** | 0.647*** | 0.669*** | 0.615*** |
| | (0.047) | (0.047) | (0.066) | (0.075) |
| Observations | 105,064 | 105,236 | 54 | 54 |
| Adjusted $R^2$ | 0.012 | 0.005 | -0.044 | -0.090 |
| *Note:* | | | | *p<0.05; **p<0.01; ***p<0.001 |

**Table 2: Regression table for changes in euro support. Regressions 1 and 2 are individual-level data with no unemployment controls. Regressions 3 and 4 are aggregate-level regressions, with unemployment controls.**

Here, the only significant difference is the one for the non-Eurozone austerity countries. This decline could have come about both through austerity worsening economic conditions, or as a result of a prospective Eurozone membership appearing less attractive at the height of the crisis. However, the fact that no significant effect can be found for the Eurozone austerity countries indicate that a crisis effect could have come about due to other means.

Despite the non-significance of the coefficients, the fact that the Eurozone difference-in-difference estimators for both periods are positive is interesting. This could support the view that the Eurozone countries saw value in the euro as a necessary condition for emergency bailout money in the early stages of the crisis. However, the non-significance of the differences indicate that one should not place undue weight on these findings. What does seem to be supported is that the austerity countries outside the Eurozone seem to have lost confidence in the euro to a greater degree than was the case inside it. The other significant coefficient, the negative difference in the non-austerity countries, could indicate that Eurozone countries outside of the PIIGS group belonging to the control group countries lost confidence in the euro during the first phase of the crisis.

This weakens the assumed correlation between unemployment and support for the euro. What it does support, however, is the findings of Hobolt and Wratil that support has declined more outside the Eurozone than inside it. This is supported by how the non-Eurozone austerity countries are the only austerity countries with larger declines in support than the non-austerity countries. Whether there is in fact a correlation between increases in unemployment and decreased support for the euro is shown by figure 4.

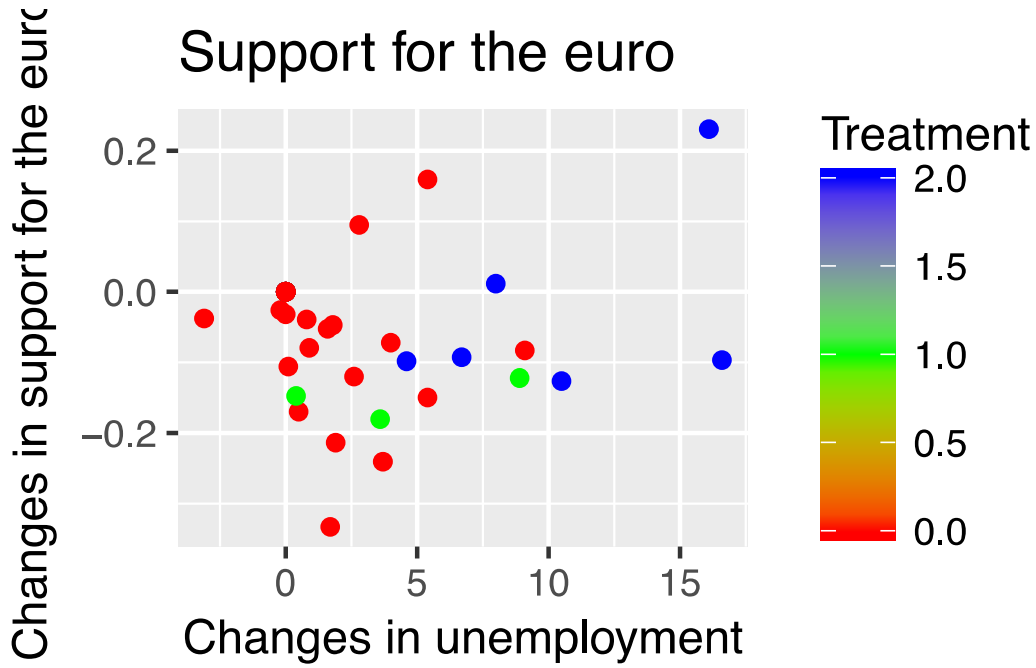


**Figure 5: Changes in unemployment correlated with changes in support for the euro, 2007-2012. Red points indicate non-austerity countries, green points indicate non-Eurozone austerity countries and blue points indicate Eurozone austerity countries.**

Here it appears that larger increases in unemployment is correlated with an increased support for the euro. This is in line with results finding larger support for the euro inside the Eurozone austerity countries than in the non-Eurozone austerity countries. In other words, there is no clear correlation between decreased support in the euro countries and larger unemployment increases in these same countries.

When controlling for unemployment none of the coefficients reach the threshold for significance. Indeed, the model seems to be wrongly specified, as the adjusted $R^2$ of regressions 3 and 4, indicating goodness-of-fit adjusted for number of variables, have negative values. This indicates that austerity may not have played a large part in determining support for the euro. Indeed, it seems as if unemployment itself might not be the important predictor that my hypothesis presupposes. Instead, it might be the case that an anti-euro climate of the debate in all parts of the Eurozone might be creating the declines. Such a causal link might be plausible for the austerity countries both inside and outside the Eurozone, and may help explain why there were significant declines only in the non-Eurozone austerity countries in one period. This, however, is outside the scope of this thesis, which seeks to investigate austerity's role in shaping support for the euro.

These results deepen our understanding of what does and does not seem to shape support for the euro. While unemployment seems to be correlated with an increased support for the euro, the same cannot be said of austerity. Given the lack of significance for most coefficients, it is likely that other factors contributed to the decline in support in non-Eurozone austerity countries. One such factor, that is not linked to austerity, may be a fear that the euro had lost some viability as a currency, especially in the first phase of the crisis. This means that our hypotheses are not in line with the empirical results, as there is no significantly larger decline or increase in euro support that is persistent across the entire period. The only significant difference in the austerity countries is the one for the non-Eurozone austerity countries.

### 6.2.3 Institutional trust – Trust in the European Commission

I will now discuss the changes in the development of institutional trust in the European Commission, the European Parliament and the European Central Bank. The first variable to be analyzed is trust in the European Commission. As before, all regressions will be shown in the same table. Regressions 1 and 2 are individual-level regression models for both periods, while 3 and 4 are aggregate-level data controlled for unemployment.

I will begin by analyzing to what extent there was a parallel trend before the crisis began in 2008, and whether the parallel trends assumption is met. This is done in figure 6.

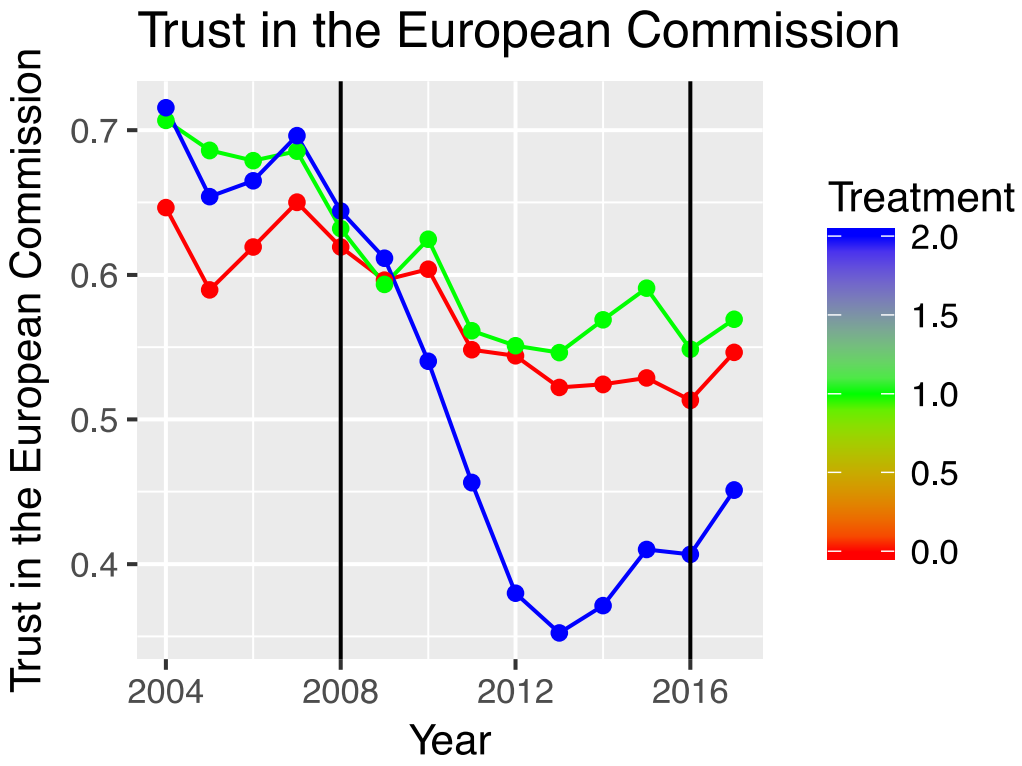


**Figure 6: Trends in Commission trust. Blue is Eurozone austerity, green is non-Eurozone austerity and red is non-austerity.**

There is reason to believe that there might be somewhat of a parallel trend in the data, but establishing this trend is made more difficult by how one may posit that a counter-factual linear trend would not be entirely parallel without the imposition of austerity. What could allow us to establish an austerity effect for the Eurozone austerity countries even without a parallel trend is that there is such a dramatically divergent level of decline between this group, the non-Eurozone austerity group and the non-austerity group. This dramatic decline

may, while it does not allow us to establish full causality, corroborate an austerity effect in this particular group of countries. The fact that other Eurozone countries, belonging to the control group, did not show such a dramatic decline supports this argument. Whether this same effect is found statistically will be shown in table 3.

| | Trust in the European Commission | | | |
|---|---|---|---|---|
| | (1: 2007-2012) | (2: 2007-2016) | (3: 2007-2012) | (4: 2007-2016) |
| Baseline difference, Eurozone austerity countries, 2007 | 0.064 | 0.064 | 0.037 | 0.040 |
| | (0.074) | (0.074) | (0.043) | (0.043) |
| Baseline difference, Non-eurozone austerity countries, 2007 | 0.055 | 0.055 | 0.028 | 0.030 |
| | (0.083) | (0.083) | (0.057) | (0.057) |
| Difference, non-austerity countries | -0.104*** | -0.122*** | -0.095** | -0.123*** |
| | (0.024) | (0.032) | (0.032) | (0.031) |
| Difference-in differences estimator for Eurozone austerity countries | -0.206*** | -0.171** | -0.181* | -0.110 |
| | (0.061) | (0.053) | (0.071) | (0.071) |
| Difference-in-differences estimator, non-Eurozone austerity countries, | -0.032 | -0.027 | -0.029 | -0.023 |
| | (0.026) | (0.130) | (0.081) | (0.080) |
| Total unemployment | | | -0.003 | -0.008 |
| | | | (0.004) | (0.005) |
| Initial level, non-austerity, 2007 | 0.634*** | 0.634*** | 0.681*** | 0.714*** |
| | (0.047) | (0.047) | (0.035) | (0.038) |
| Observations | 101,577 | 101,749 | 54 | 54 |
| Adjusted $R^2$ | 0.035 | 0.036 | 0.474 | 0.502 |
| *Note:* | | | | *p<0.05; **p<0.01; ***p<0.001 |

**Table 3: Regression table for European Commission trust. Regressions 1 and 2 are individual-level data with unemployment controls. Regressions 3 and 4 are aggregate-level data, with such controls.**

As the table shows, there are highly significant differences for the Eurozone austerity countries in both periods investigated. This shows that, even with a small decrease in the size

of the differences in the latter period, the differences in the declines between the Eurozone austerity countries are large and highly significant. This same effect, both in the short and long term, is not found in the austerity countries outside the Eurozone. However, they are found in the non-austerity countries.

In the case of the significantly larger declines in trust in the Eurozone austerity countries, it could be that they are brought about because of larger levels of unemployment in these countries. This would be in line with previous research finding that trust declines in times of economic crisis. Whether such a correlation is present in the data could be shown by analyzing the differences in both unemployment and trust in the first phase of the crisis, as done below.

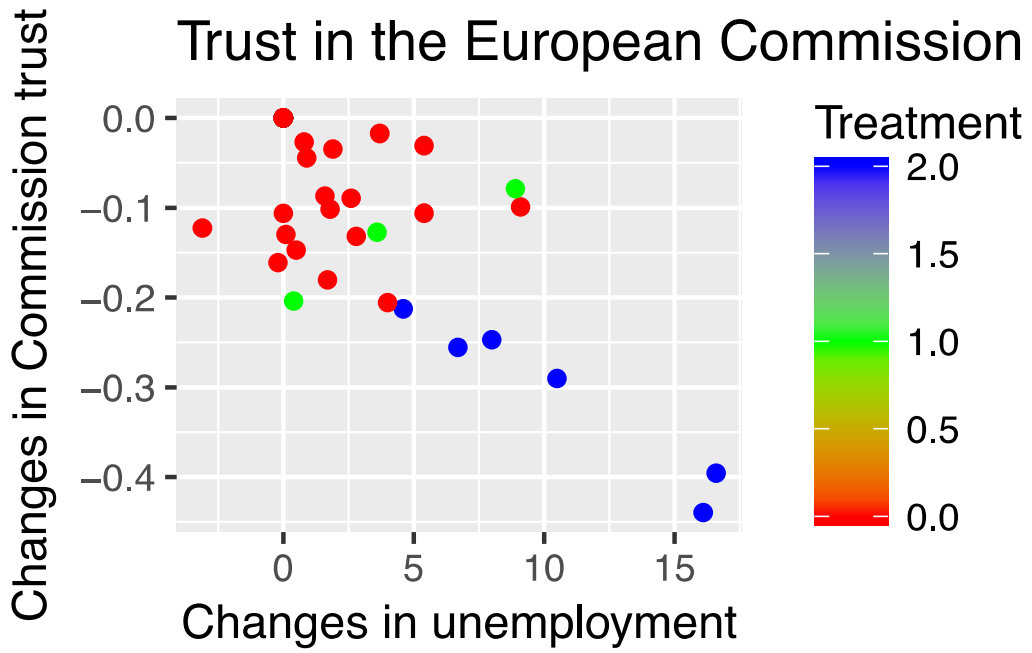


**Figure 7: Changes in unemployment correlated with changes in trust in the European Commission, 2007-2012. Red points indicate non-austerity countries, green points indicate non-Eurozone austerity countries and blue points indicate Eurozone austerity countries.**

Here, there is a pattern of correlation between increasing unemployment and decreasing trust. It is primarily among the Eurozone austerity countries that this pattern manifests itself. This corroborates the assumption that unemployment will lead to increasing distrust. It thus strengthens the hypothesis that austerity could have contributed to larger distrust through increasing unemployment.

However, regressions 3 and 4 of table 3 seem to indicate a larger decline that is statistically significant in the Eurozone austerity countries even when controlling for unemployment. This indicates a direct effect of austerity policies on the Eurozone austerity countries in both periods. However, there is no direct effect of unemployment on trust. This could indicate that the mechanism through which austerity impacts trust is different than the one through which it impacts support for the EU. As an example, austerity could impact trust through the impact that the policies have had on national democracy, as well as on unemployment. By making fiscal restraint the only legitimate fiscal policy option, the Commission could have been perceived as undermining national democracy. It would then be likely that the persistently lowered trust in the Eurozone is a reaction to this curtailing, and what it meant for countries in the Eurozone periphery, rather than only reflecting increased unemployment.

Such an explanation does not answer the question of why only Eurozone austerity countries are impacted, as the democratic implications would be the same for all austerity countries. One possible explanation is that non-Eurozone austerity countries had a different set of monetary policy tools available, which could be used to counteract the worst of the crisis. This made the fiscal policy constraint less salient outside the Eurozone. These tools were not available to the Eurozone austerity countries. Here, unemployment and economic conditions play a part. However, it happens in different ways than through utilitarian assessments.

It must be noted that there is only a direct effect of austerity in the first phase of the crisis, which is found through analyses at the aggregate level in regressions 3 and 4. One reason could be that austerity policies were newly imposed in this first phase, leading to a larger level of political contestation of the programs. This could have increased distrust in the Commission itself, as a public face of these policies. A level of familiarity with these programs in the second phase of the crisis may also have contributed to making them less politically contested than in the earlier years of the crisis. On the other hand, the small number of units in these analyses could make it more difficult to find significant effects that are actually present also in the second phase. This is supported by the quite large coefficient for the direct effect of austerity in the period 2007-2016.

As a conclusion, there is apparently both a persistent effect of austerity on trust in the Commission as well as a direct effect. This seems to confirm my hypotheses.

### 6.2.4 Trust in the European Parliament

The European Commission has played a prominent role in administering austerity policies to a group of countries in the Eurozone periphery. To test whether the decline in trust is largely a result of general anti-European sentiment or of austerity policies, I want to explore the development in trust for an institution not a member of the Troika. The European Parliament is such an institution, as it was critical of austerity even during the crisis. I will first visualize the trend in parliamentary trust before the crisis, as done in the figure below, before showing regressions for both periods, with and without a control for unemployment.

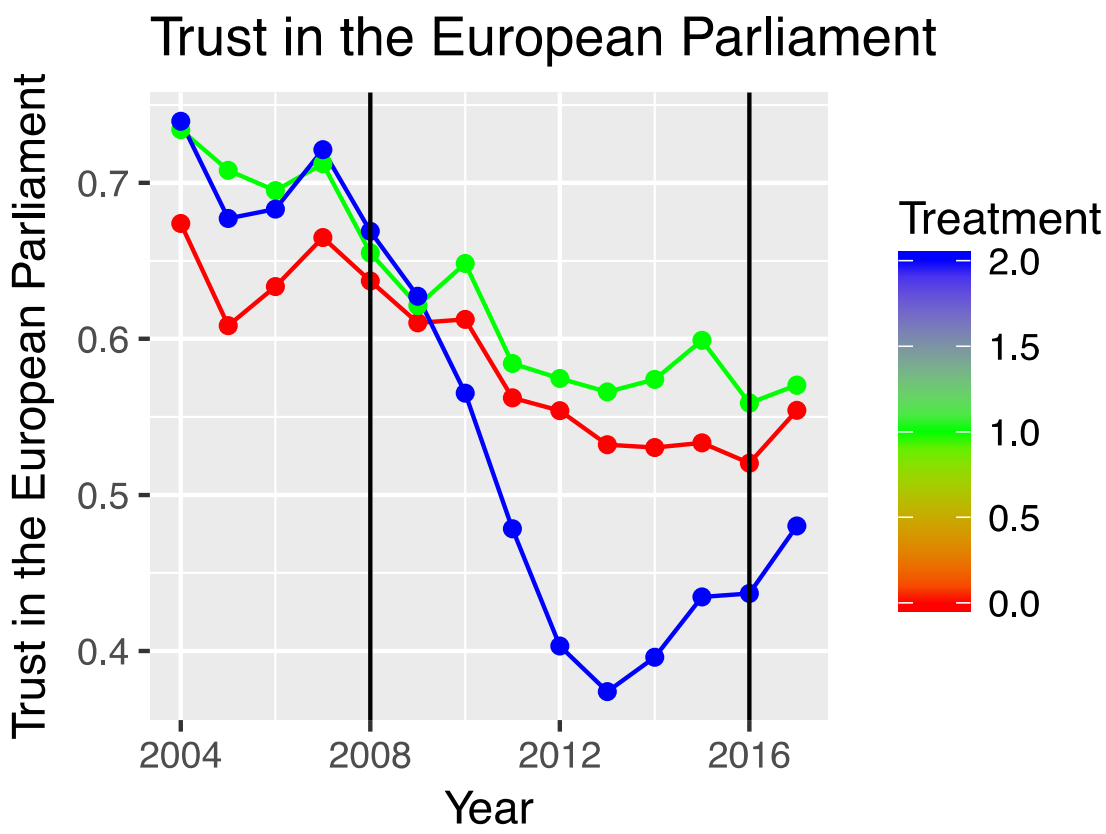


**Figure 8: Trends in European Parliament trust. Blue is Eurozone austerity, green is non-Eurozone austerity and red is non-austerity.**

As is the case with the previous example, one can detect something akin to parallel trends in the year before the crisis began and the first austerity programs were implemented. There are somewhat parallel differences, with all country groups showing signs of declining trust in the period between 2004 and 2007. This indicates a parallel trend. However, the differing steepness of the decline in the years before the crisis began means that I am unwilling to unequivocally state that there would be an entirely parallel trend if there had been no treatment. One argument, however, for a true crisis effect in the Eurozone austerity countries

is the large decline in trust in the crisis years. This difference is much larger than that found for both control group countries and the non-Eurozone austerity countries.

My regressions for both periods include both individual-level data for trust in the European Parliament, that do not control for unemployment, as well as aggregate-level data including these controls. These regressions are all shown in table 4.

| | Trust in the European Parliament | | | |
|---|---|---|---|---|
| | (1: 2007-2012) | (2: 2007-2016) | (3: 2007-2012) | (4: 2007-2016) |
| Baseline difference, Eurozone austerity countries, 2007 | 0.072 | 0.072 | 0.044 | 0.046 |
| | (0.074) | (0.074) | (0.042) | (0.044) |
| Baseline difference, Non-eurozone austerity countries, 2007 | 0.065 | 0.065 | 0.037 | 0.038 |
| | (0.083) | (0.083) | (0.056) | (0.058) |
| Change, non-austerity countries | -0.109*** | -0.128*** | -0.100** | -0.131*** |
| | (0.024) | (0.032) | (0.031) | (0.031) |
| Difference-in differences estimator, Eurozone austerity countries | -0.203*** | -0.159** | -0.178* | -0.108 |
| | (0.061) | (0.053) | (0.069) | (0.072) |
| Difference-in-differences estimator, non-Eurozone austerity countries | -0.030 | -0.036 | -0.026 | -0.030 |
| | (0.026) | (0.130) | (0.080) | (0.082) |
| Total unemployment | | | -0.003 | -0.006 |
| | | | (0.004) | (0.005) |
| Initial level, non-austerity, 2007 | 0.649*** | 0.649*** | 0.694*** | 0.717*** |
| | (0.047) | (0.047) | (0.034) | (0.039) |
| Observations | 102,619 | 102,791 | 54 | 54 |
| Adjusted $R^2$ | 0.035 | 0.036 | 0.485 | 0.485 |
| *Note:* | | | | *p<0.05; **p<0.01; ***p<0.001 |

**Table 4: Regressions for European Parliament trust. Regressions 1 and 2 are individual-level regressions, without controls for unemployment. Regressions 3 and 4 are at the aggregate level, and includes such controls.**

The individual-level regressions in regression 1 and 2 indicate persistent declines in trust for both Eurozone austerity countries as well as non-austerity countries, at approximately the same level as the declines in trust in the Commission. This is found despite the two institutions' different policy stances. The results also call for us to also explain the much smaller differences between Eurozone austerity countries and the non-austerity countries in the second phase compared to the first. One such explanation could be that decreasing unemployment in the second phase created an environment conducive to increased trust.

This interpretation is strengthened by how the developments in trust, first decreasing and then increasing, follow an inverse pattern as the one for unemployment, as shown in figure 1. The hypothesis that changing unemployment could explain changing levels of trust could be strengthened by investigating whether there is a correlation between unemployment and decreasing trust in the first phase of the crisis.

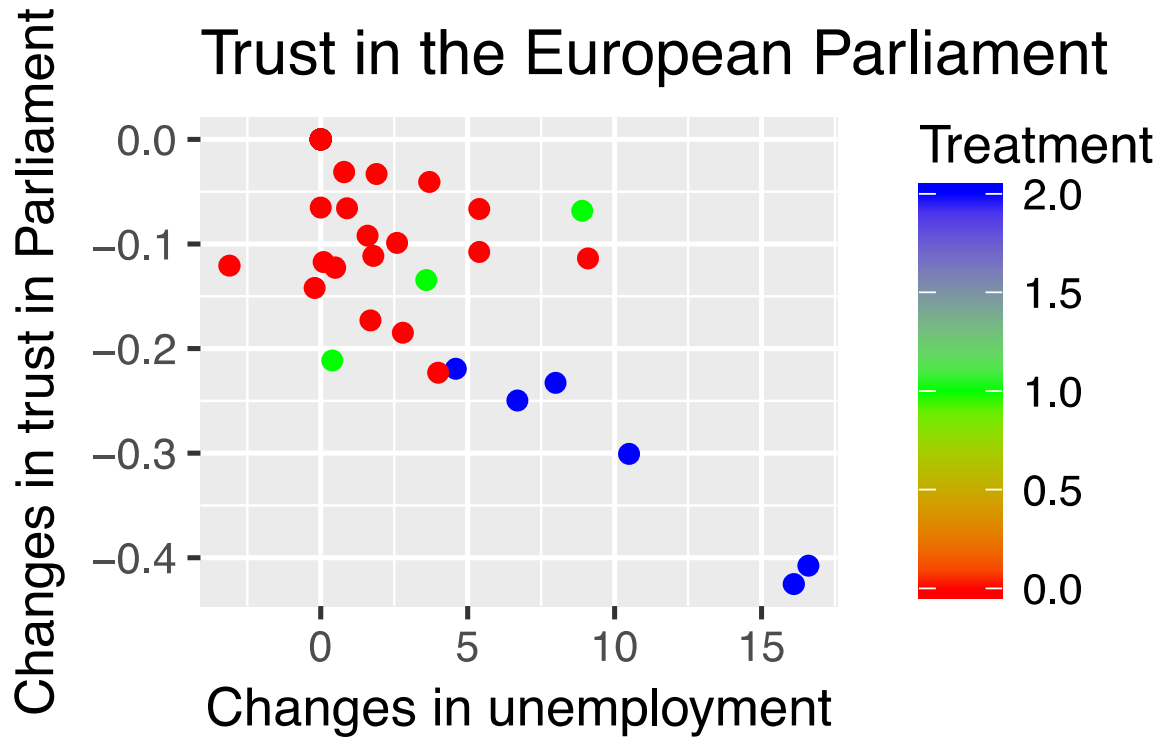


**Figure 9: Changes in unemployment correlated with changes in trust in the European Parliament, 2007-2012. Red points indicate non-austerity countries, green points indicate non-Eurozone austerity countries and blue points indicate Eurozone austerity countries.**

As was the case for trust in the Commission, there is a clear correlation between increasing unemployment and decreasing trust in the European Parliament. This increases the likelihood that unemployment serves as an omitted variable that may contribute to decreasing trust in

both phases of the crisis. It also shows that increasing employment may explain why there was a less pronounced decline in the second phase than in the first.

There is also a significant direct effect of austerity in the first phase of the crisis, from 2007-2012, that exists regardless of unemployment levels. This is shown by a correlation between being an austerity country and expressing a significantly lower degree of trust in the European Parliament than the non-austerity countries when controlling for unemployment. The same effect can arguably be said to exist for the second phase, as the estimator's size is substantial, but not significant. Two different reasons could be behind this disappearance of significance: The most likely is that the low number of units make finding actually present effects more difficult, given that there were less uniform patterns in this period. The fact that the size of the estimator has only decreased a modest amount when controlling for unemployment supports such an analysis. Another explanation is the same as the one for the Commission, namely that increasing familiarity with the programs decreased the level of political contestation of them.

One question is why Parliament seems to have suffered the same decline in trust among the austerity countries as the Commission, despite adopting anti-austerity positions during the crisis (European Parliament 2012). I believe this can be explained by respondents primarily identifying the European Parliament with its European nature, rather than specific policy positions. What we are seeing is thus a general anti-EU sentiment, rather than opposition to only the Troika institutions and their policies. This could support a contention that people objected to a perceived lack of competence in handling the crisis on the part of the EU institutions, rather than to specific policies. This would help explain the similar developments in trust for two institutions with diametrically opposed policy stances. However, this makes it more difficult to identify the reason that people felt an increasing distrust in either the European Parliament or the Commission. As "trust" is a notoriously ill-defined concept quite central to this question, we cannot be sure about whether respondents distrusted the handling of the crisis or the institutions themselves.

In conclusion, there seems to be a direct effect of austerity in the Eurozone austerity countries during the first phase of the crisis. In addition, it would seem as if there is a decline in trust throughout the entire phase of the crisis that is dependent upon the levels of unemployment and is larger in the austerity countries. This is in line with my hypotheses. This indicates, in

my view, that the European Parliament might have been seen more as expressions of a pan-European political order with a common view of austerity, rather than purveyors of anti-austerity policies. Such a development could be indicative of a general anti-EU sentiment. On the other hand, it also strengthens a belief that respondents might be less likely than many survey researchers would like to believe to parse the policy differences between the European institutions when answering questions like this.

### 6.2.5 Trust in the European Central Bank

When analyzing trust in the European Central Bank, we are likely to see a similar trend as for trust in the European Commission. The reason is that, as members of the Troika, the central bank is more likely than Parliament to be perceived as exponents of austerity policies that have been credited with worsening the crisis. In addition, it has played a role in the surveillance of the austerity policies that has made decreasing trust even more likely. The trend for each of the country groups in each year will be shown in the graph below.

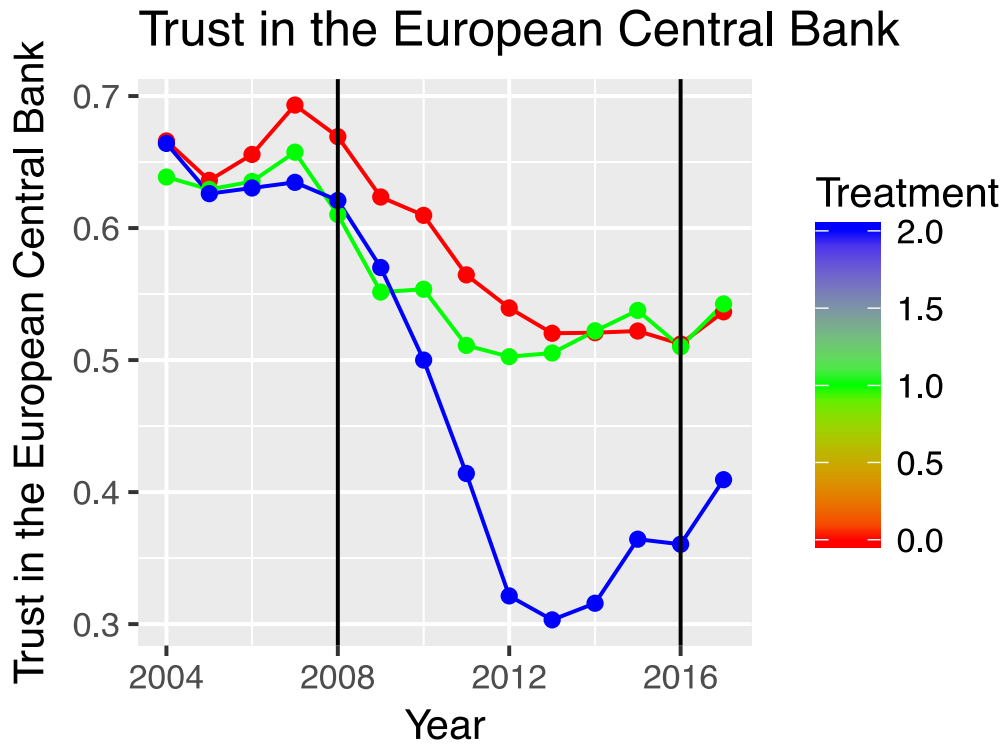


**Figure 10: Trends in European Central Bank trust. Blue is Eurozone austerity, green is non-Eurozone austerity and red is non-austerity.**

There is something like a parallel trend in the years before the crisis began, with concurrent increases and decreases, and a main trend of decreasing trust from the beginning to the end of the pre-treatment period. There is also a clear trend after the crisis, with trust in the Eurozone austerity countries declining far more than the other country groups. This decline is much larger than in the other country groups. This means that we may be able to establish that there was a likely effect of the austerity on trust for this particular group of countries.

We must now analyze the changes happening during the crisis. Regressions 1 and 2 analyze both the first and the second phase of the crisis, with regressions based on individual-level data. Regressions 3 and 4 will analyze the changes happening at the aggregate level. The same regressions will also include a control for unemployment, as reported to Eurostat. As before, it is a problem that there is only 54 units in regressions 3 and 4. This may potentially make it more difficult to establish whether there is in fact any significant correlations between austerity and trust in the central bank.

| | Trust in the European Central Bank | | | |
|---|---|---|---|---|
| | (1: 2007- 2012) | (2: 2007-2016) | (3: 2007-2012) | (4: 2007-2016) |
| Baseline difference, Eurozone austerity countries, 2007 | -0.045 | -0.045 | -0.052 | -0.050 |
| | (0.074) | (0.074) | (0.041) | (0.043) |
| Baseline difference, Non-eurozone austerity countries, 2007 | -0.025 | -0.025 | -0.037 | -0.036 |
| | (0.083) | (0.083) | (0.054) | (0.057) |
| Change, non-austerity countries | -0.164*** | -0.181*** | -0.129*** | -0.159*** |
| | (0.024) | (0.032) | (0.030) | (0.031) |
| Difference-in differences estimator, Eurozone austerity countries | -0.146* | -0.104* | -0.093 | -0.054 |
| | (0.061) | (0.053) | (0.067) | (0.071) |
| Difference-in-differences estimator, non-Eurozone austerity countries | 0.008 | 0.024 | 0.007 | 0.005 |
| | (0.026) | (0.130) | (0.077) | (0.081) |
| Total unemployment | | | -0.008 | -0.010* |
| | | | (0.004) | (0.005) |
| Initial level, non-austerity, 2007 | 0.686*** | 0.686*** | 0.753*** | 0.767*** |
| | (0.047) | (0.047) | (0.033) | (0.038) |
| Observations | 101,104 | 101,276 | 54 | 54 |
| Adjusted $R^2$ | 0.059 | 0.057 | 0.628 | 0.598 |
| *Note:* | | | | *p<0.05; **p<0.01; ***p<0.001 |

**Table 5: Regressions for ECB trust. Regressions 1 and 2 are at the individual level, and exclude unemployment controls. Regressions 3 and 4 are at the aggregate level, and include such controls.**

The individual-level regressions strengthen the hypothesis of a decline in trust in the austerity countries that is larger than in the non-austerity countries. However, it is only inside the Eurozone that the larger differences between austerity and non-austerity countries are statistically significant. One reason could be that the Eurozone austerity countries were "politically captured" by controversial ECB choices to a different degree than non-Eurozone austerity countries. The fact that there is a persistent effect indicates that disagreements with some of the policy choices could have played a part.

Another reason, as posited for the other institutions analyzed, could be that unemployment and economic crisis contributes to declining trust also in this institution. As the Eurozone austerity countries had the highest unemployment levels, it is likely that we would find the largest declines in trust here. Thus, we expect unemployment to be correlated with decreasing trust in the ECB. Whether there is a correlation between unemployment and declining trust in the years 2007-2012 also here is shown in figure 11.

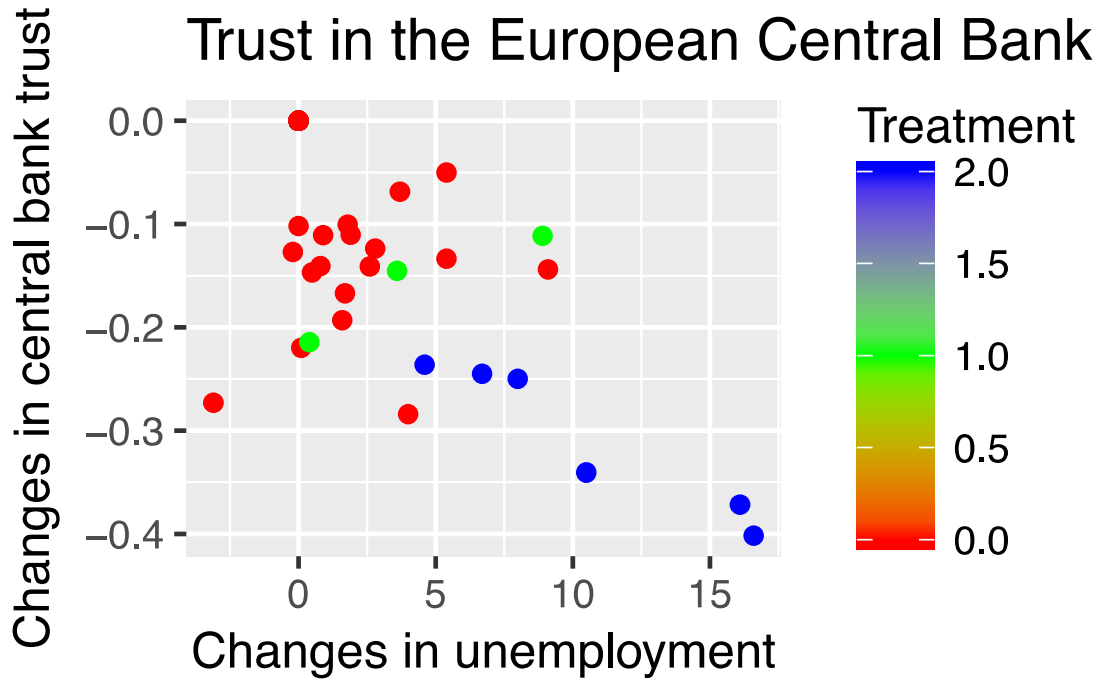


**Figure 11: Changes in unemployment correlated with changes in trust in the European Central Bank, 2007-2012. Red points indicate non-austerity countries, green points indicate non-Eurozone austerity countries and blue points indicate Eurozone austerity countries.**

As shown, there is a clear pattern of correlation between increasing unemployment and decreasing trust. This shows that trust declined most where unemployment rose the most. This could thus explain some of the larger declines in the Eurozone austerity countries found

in regressions 1 and 2, and supports an explanation that connects austerity to increasing distrust through the effect austerity has had on unemployment.

However, there is little to suggest a direct austerity effect when controlling for unemployment. The only significant effect to be found when controlling for unemployment is a general crisis effect in the non-austerity countries. It is difficult to know if this lack of significant effects is caused by a real absence of effects, as the coefficients are quite substantial even if they are insignificant, or if the low number of units make it more difficult to establish effects that are actually there. Nevertheless, the result seems to weaken the assumption that austerity would be a direct cause of declining trust in the European Central Bank. This does not mean that we can rule out effects of the austerity policies themselves, because austerity may still have created declines through making the crisis worse, but there is little support for a hypothesis of a direct causal link between the two.

As a conclusion, one could argue that there is an effect of austerity on trust in the ECB when observing the larger declines in Eurozone austerity countries. This is in line with my hypotheses, as set forth in the introduction. However, this larger decline appears to be a product of increasing unemployment in the austerity countries, rather than austerity itself. This is supported by a lack of significant direct effects of austerity when controlling for unemployment. One should, however, be wary of saying that austerity has played no part in causing this larger decline: Given that austerity could have contributed to an economic downturn that caused higher unemployment, it may have contributed to the larger declines.

### 6.2.6 Satisfaction with EU democracy

Finally, I will investigate how the crisis and the austerity that followed had an effect on European citizens' satisfaction with the way that democracy at the European Union level tends to work. This investigation will follow the same methodology as the investigation of the preceding variables. I will first analyze whether there is such a thing as a parallel trend present in the years before the crisis began, before presenting all regressions in table 6.

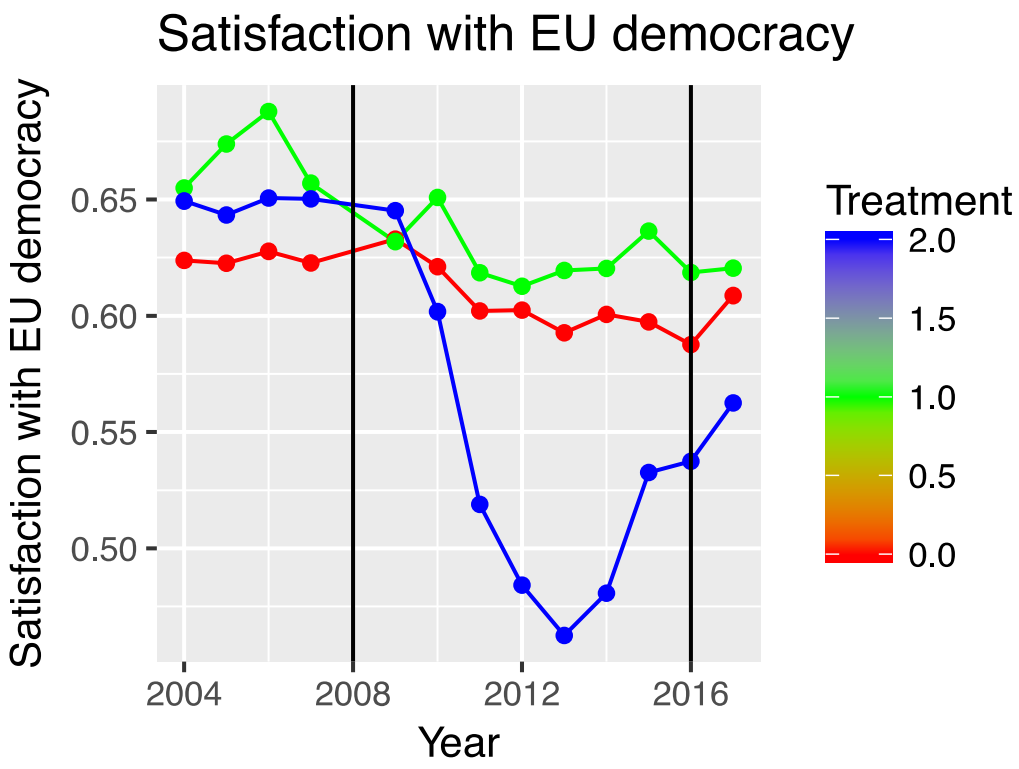


**Figure 12: Trends in democracy satisfaction. Blue is Eurozone austerity, green is non-Eurozone austerity and red is non-austerity.**

Here, there appears appears to be a parallel trend in the years before the crisis. This is supported by the fact that there is something like constant differences between 2004 and 2007. The fact that there seems to be a parallelity in 2007 between the Eurozone austerity and the non-austerity countries means that we might establish something approaching a parallel trend for these two groups. Altogether, it appears that the parallel trends assumption is largely fulfilled in this case, even though one can never fully ascertain that the trends would not deviate in the absence of treatment.

I will first show regressions for both periods, before visualizing the correlations between unemployment and democracy satisfaction.

| | Satisfaction with EU democracy | | | |
|---|---|---|---|---|
| | (1: 2007 - 2012) | (2: 2007-2016) | (3: 2007-2012) | (4: 2007-2016) |
| Baseline difference, Eurozone austerity countries, 2007 | 0.029 | 0.029 | 0.025 | 0.027 |
| | (0.023) | (0.023) | (0.023) | (0.025) |
| Baseline difference, Non-eurozone austerity countries, 2007 | 0.039** | 0.039** | 0.032 | 0.034 |
| | (0.015) | (0.015) | (0.030) | (0.033) |
| Change, non-austerity countries | -0.020** | -0.033** | -0.016 | -0.024 |
| | (0.007) | (0.011) | (0.017) | (0.017) |
| Difference-in differences estimator for Eurozone austerity countries | -0.142*** | -0.082* | -0.137*** | -0.055 |
| | (0.023) | (0.034) | (0.037) | (0.041) |
| Difference-in-differences estimator for non-Eurozone austerity countries | -0.024 | -0.012 | -0.025 | -0.021 |
| | (0.014) | (0.019) | (0.043) | (0.046) |
| Total unemployment | | | -0.001 | -0.006 |
| | | | (0.002) | (0.003) |
| Initial level, non-austerity, 2007 | 0.622*** | 0.622*** | 0.634*** | 0.665*** |
| | (0.013) | (0.013) | (0.018) | (0.022) |
| Observations | 69,548 | 70,058 | 54 | 54 |
| Adjusted $R^2$ | 0.031 | 0.015 | 0.429 | 0.283 |
| *Note:* | | | | *p<0.05; **p<0.01; ***p<0.001 |

**Table 6: Regressions for satisfaction with EU democracy. Regressions 1 and 2 are individual-level regressions and exclude unemployment controls. Regressions 3 and 4 are aggregate-level regressions, and include such controls.**

There is a highly significant decline in the Eurozone austerity countries in the years 2007-2012. This suggests that the crisis effect was larger for the austerity countries than for the control group countries, possibly as a result of larger unemployment created by austerity. A similar effect, though smaller in size, is also found in the Eurozone austerity group when analyzing the full period. One might assume that there is a correlation between changes in unemployment, with unemployment either increasing or decreasing, and changes in democracy satisfaction. The fact that there is a weakening Eurozone difference-in-differences estimator in the seond phase of the crisis, which correlates with a phase of the crisis with

lowered unemployment, may indicate such a correlation. Whether this is the case for the first period is shown by figure 13.

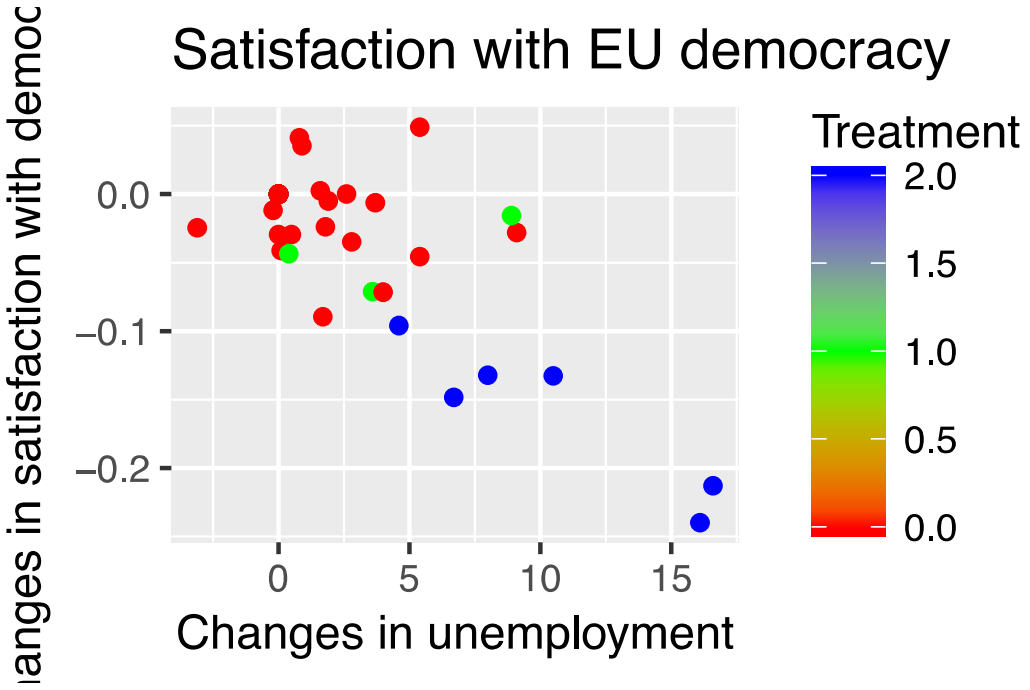


**Figure 13: Changes in unemployment correlated with changes in trust in the European Central Bank, 2007-2012. Red points indicate non-austerity countries, green points indicate non-Eurozone austerity countries and blue points indicate Eurozone austerity countries.**

As shown, there is a correlation between unemployment levels and decreasing satisfaction with EU democracy. This substantiates the belief that unemployment may act as a driver of decreasing satisfaction with EU democracy in this first phase of the crisis.

When controlling for this level of unemployment, the results suggest something like a direct effect of austerity policies on the Eurozone austerity countries in the first period. This direct austerity effect seems to disappear when analyzing the full crisis period. This becomes clear when seeing regression 4, the regression controlling for unemployment in the period 2007-2016. Here, there is no significant difference found for the Eurozone austerity countries. While it is difficult to tell if this is mainly caused by a lack of statistical power or a lack of effect, it is in contrast to the results found when not controlling for unemployment in the same period. Here, the effects are significant.

As regression 3 shows, there is a significant austerity effect found for the Eurozone austerity countries when analyzing the changes in trust between the beginning and the end of the first

phase of the crisis. A reason the effect subsides when analyzing the full crisis period might be that there was an increasing familiarity with the programs, which could have caused less political contestation of the programs in the period from 2012 and 2016.

There is, however, a persistent effect of austerity when not controlling for unemployment. As the effect of unemployment is statistically insignificant, this persistent effect is likely to be caused by something other than increased unemployment in some austerity countries. One example of such an explanation is that the curtailing of national policies available to countries has contributed to democratic distrust in the EU democratic framework on the part of residents of the austerity countries.

## 6.3 Summary of results

In this analysis, I have found some significant effects of austerity policies on trust and support for various aspects of European integration. It appears that my hypotheses are largely supported, as there are clear indications of a persistent effect of austerity on most variables. This applies to all regressions except those for support for EU and euro membership.

However, it is only in some instances that one finds a direct effect of austerity on trust and support. The mixed picture clearly shows that it is only in some instances that austerity itself can be seen as a direct cause of declining trust. By this I mean that other declines might have come about as a result of the austerity increasing unemployment, rather than the policies themselves. It is thus possible that we may be seeing an austerity effect in all regressions, but that this effect is indirect in some regressions related to support for the EU and the euro.

This makes it difficult to clearly establish direct causal links between austerity and declines in support in the euro and EU membership. For some trust variables, on the other hand, one can make a stronger case for something of an austerity effect, as the effect of austerity is significant even when controlling for unemployment. For those without significant difference-in-differences when controlling for this, one should be wary of ascribing any kind of causality to the link between austerity and decreasing support.

## 6.4 A discussion of problems related to causality

As pointed out several times during the preceding analysis, any analysis of this kind must be followed by a discussion of the extent to which one can infer a causal relation between austerity policies and changes in the levels of the dependent variables. I will discuss both the problems with inferring causality that is inherent to this particular analysis, but also some of the more general issues that are inherent to causal claims arising from statistical analysis.

As stated previously, the key assumption behind the difference-in-differences methodology is that austerity is the only thing that differs between the country groups before and after the crisis began. In addition, both control and treatment groups must be similar apart from the treatment. Here it appears that the trends are somewhat parallel for most variables, expect the variable measuring support for the EU.

However, differing unemployment levels could be a relevant difference between the country groups that could have an impact on the levels of trust and support for the EU. This is the case because a plausible explanation, inbuilt into the mechanisms that form the basis for hypotheses about how austerity would impact support and trust in the EU, is that the economic situation is the primary cause of lower levels of trust and support. In most cases investigated in this thesis, there is a correlation between increasing unemployment and decreasing trust or support. It is possible to imagine that the decline in trust and support would have been equally large in for example the Eurozone austerity group even without the austerity policies, if the unemployment levels had been the same. In some sense, this makes it almost impossible to say if austerity is creating a decline in the values of the dependent variables, or if unemployment is the cause of the decreases.

A further analytical problem is that it is difficult to disaggregate these two factors. There is a possibility that austerity policies are driving average trust and support down in a more indirect fashion, through making unemployment worse. Lower degrees of trust in the Eurozone austerity countries could in this way be explained by the far greater unemployment in parts of the Eurozone periphery, a situation which could have been made worse by the introduction of austerity policies. This could allow us to see austerity as a cause of differences, though a less direct than unemployment could be considered to be.

Another issue is that the varying degrees of parallel trends before the crisis do not unequivocally allow us to establish causal links for all variables. I have opted to err on the side of caution, but have found something close to parallel trends for most of my variables. The sole exception has been the variable measuring support for EU membership. This is contrast to my institutional trust variables, which exhibit a great deal of parallelity between the groups before the crisis. What this means is that we may, in these cases, be reasonably sure that there is a causal link between austerity and institutional trust. However, even here it is not entirely given that the trends would be parallel in the absence of treatment. This means that we cannot be entirely sure of any causal effect that is found through my analyses.

There are also problems associated with my models themselves: A model designed to study the effect of austerity more than to give a complete picture of the different determinants of trust and support, as is the case here, will necessarily leave many pieces of the puzzle unexamined. One particular example of this is related to support for the EU. As Gabel (1998) points out, several factors determine levels of support for EU membership. Similarly, there are numerous reasons why one might oppose or support this same membership. To this, I will argue that this is not a problem: My study does not seek fully explain everything that might have influenced support for EU membership in this period, but rather how support is impacted by austerity policies and financial crisis. This makes the study X-focused, as it focuses on the contribution of the independent variable X, rather than on fully explaining variance in the dependent variable Y.

However, even when seeking to explore the effect only of austerity, one is faced with a possible omitted variable bias, in the sense that other variables might correlate with austerity policies and influence support. This potential omitted variable bias is to some extent reduced by the fact that I seek to control for unemployment in one set of the regressions. This might theoretically be assumed to be the source of much of the bias. By analyzing also what the effect of austerity policies is when controlling for unemployment, one might find the direct effects of austerity.

When it comes to analyzing the explanatory power of my regressions, it is readily apparent that there is much unexplained variance. One example of this is found in the regressions measuring support for the EU. The $R^2$ of a regression, even though it does not provide a full account of the model's goodness-of-fit, is an indication of the proportion of the variance

explained by the model (Field 2013:338). If comparing two models, the model with the highest $R^2$ will be the model that explains the largest variance of the dependent variable. For the regression measuring support for the EU in the austerity countries and the rest of the EU from 2007 – 2016, we see that the proportion of explained variance is 0.042. This roughly equates to 4.2 percent of explained variance, indicating that using austerity policies as the sole explanatory variable leaves much variance still unexplained. This shows that other variables than austerity policies also contribute to explaining decreased support for the EU.

When asking what control variables should be included to increase the variance explained, the question must always be what variables are relevant in the context of the specific study, and if the variables could theoretically be assumed to impact already included variables. This is a question that is of paramount importance. The reason is that including a large number of control variables simply to ensure completeness might actually end up increasing the bias on relevant coefficients that introducing control variables was meant to reduce (Clarke 2005:344). This calls for exercising caution when including control variables. As my main goal is to measure the impact of austerity policies, it is theoretically most relevant to include those variables that might have an impact on the dependent variables and that could bias the austerity policy variable. Thus, unemployment should be included as a control variable while socioeconomic variables would be less necessary.

These problems require us to exercise restraint when it comes to inferring causality between austerity and larger declines in the austerity countries. While it is surely the case that some direct effect can be inferred for some of the variables, the case for most variables is that both unemployment as well as other variables may be the real cause of larger declines in the austerity countries. This is important to bear in mind when analyzing the results.

## 6.5 A theoretical objection to my framework

However, one may even posit a theoretical objection to my analyses and the conclusions derived from them. A theoretical argument against the causal inferences of my analysis is that the causal mechanisms posited in this thesis may be perceived as unnecessarily reductionist. This is particularly clear in the case of the causal mechanism linking austerity and support for EU membership. This mechanism focuses quite extensively on utilitarian assessment of benefits and drawbacks of membership. A link between a perceived lack of utility of the

membership and decreased support for the EU supposes that a respondent is able to critically assess the benefits and drawbacks of EU membership, before reaching a negative conclusion. This negative assessment then finds an outlet in a negative response to a question about whether membership of the European Union is a good thing for his country. In this way, my theoretical causal mechanism is influenced by rational choice theory, even though it does not assume full information or perfectly rational actors.

Such an approach presents some problems. The first problem is that a complex analysis of the drawbacks and benefits of EU membership to each respondent's country is likely to be close to impossible for many respondents, regardless of education levels (Elster 2011:165). Stated more formally: We should not expect agents acting in the social space that is each individual country to be able to rationally calculate the aggregated utility that each member state gets from their EU membership. Thus, the assumptions underlying my causal mechanism might be too unrealistic, in the sense that individual actors might have a less analytical approach to assessing benefits and drawbacks of EU membership. This may make it more difficult to draw causal links between austerity and lowered membership support through negative utilitarian benefit, as it is difficult to establish whether the respondents themselves draw the links between austerity policies implemented by the EU and negative economic outlook at the national level

An alternative conceptualization of the link between decreased EU support and austerity policies is to see decreasing support as indicative of decreased utilitarian value at the individual level. In this alternative causal mechanism, the respondent actually sees his country's membership of the EU as bad for his own life at an individual level, rather than concluding in any way about its utility at the national level. For this to lead to an expression of lowered support or support, the next step must be for individual and national utility to be conflated in the minds of the respondents, so as to present the respondent with a unified assessment of the utilitarian value of membership. This would then lead the respondent to express a lowered support or trust in EU membership and EU institutions. Thus, it is not unlikely that what is presented as an assessment of the perceived national value of EU membership may be more accurately described as a reflection of the respondent's average assessment of whether EU membership is seen as a good thing for them individually.

This problem is not easily solvable using statistical techniques, as answering the question requires knowing exactly how each respondent arrived at their conclusions before answering questions about support for the EU or the euro. It is similarly difficult to say with any certainty whether each respondent has the requisite knowledge to for example disaggregate both the EU and the national response to the sovereign debt crisis. This calls into question whether the answers respondents give to trust questions are themselves to be trusted. It is not obvious that respondents of the different countries would identify a worsening economy with the European, rather than national response, to crisis. If there was a tendency of national democratic institutions being "blamed" for problems with the European response, this could lead respondents to specify a falsely high level of satisfaction with European democracy. This would skew my dependent variable.

Another objection to such a utility-focused framework is that one cannot always presume that people's preferences are purely economic, and that economic preferences are the primary preferences used to evaluate EU membership. As an example, a highly skilled professional that would otherwise support membership of the EU on economic grounds might find himself opposed to membership for a multitude of reasons that have nothing to do with economic utility. As an example, he might believe that opposing membership is in his best interest as a citizen, as membership serves as an encroachment upon national sovereignty. Thus, he comes to a conclusion about what to think about membership after an assessment of preferences that are not economic in nature. This is an example that even if there is a development in the direction one would expect, other variables than austerity or unemployment might be behind them, as respondents may evaluate membership against other preferences than the economic.

In other words, there are some problematic aspects connected to my choice of both analytical framework as well as methodology. These problematic aspects must be discussed more deeply. Having dealt with the more theoretical objections to my conclusions, I will now investigate the robustness of the same findings.

# 7 Robustness checks

I will now investigate how sensitive the model is to an alternative specification. Specifically, I will investigate whether the model's significance changes when excluding Greece from the treatment group. As the country hardest hit by recession after imposing austerity, mainly due to some peculiarities of the Greek economy that made the Greek case different from other austerity countries, it is not unlikely that this country would be disproportionally hard hit by decline in things such as trust and support for the EU (Blyth 2015:63).

In addition, I will also investigate whether there are parallel trends even within the different treatment groups. This will tell me something about whether the treatment group mean hides such a large variation that they in reality should not be treated as groups, but rather a collection of individual countries.

## 7.1 Support for the EU

I have run regressions for both the 2007-2012 period as well as the 2007-2016 period. For the regression which included the first period of the crisis, the Eurozone austerity group, that included Greece, yielded a significant result. The treatment period that included the full crisis period gave no such significant results for the Eurozone period.

Regression table 7, shown in the appendix, displays a similar pattern even when excluding Greece. Where there is a larger decline in support for the EU among the Eurozone austerity countries in the first phase of the crisis, the same is not the case of the latter phase. This mirrors the results found for the treatment group that included Greece. What this shows us is that the full results, either for the first or the last phase of the crisis, are not entirely driven by Greece being included in the data. It appears that the only real change is that the Eurozone difference-in-differences estimator is weakened by excluding Greece. This is not unexpected, as the Greek economy experienced a very large decline.

It further appears that there is a real similarity in the response to the crisis within the Eurozone countries themselves. This is shown in figure 14.

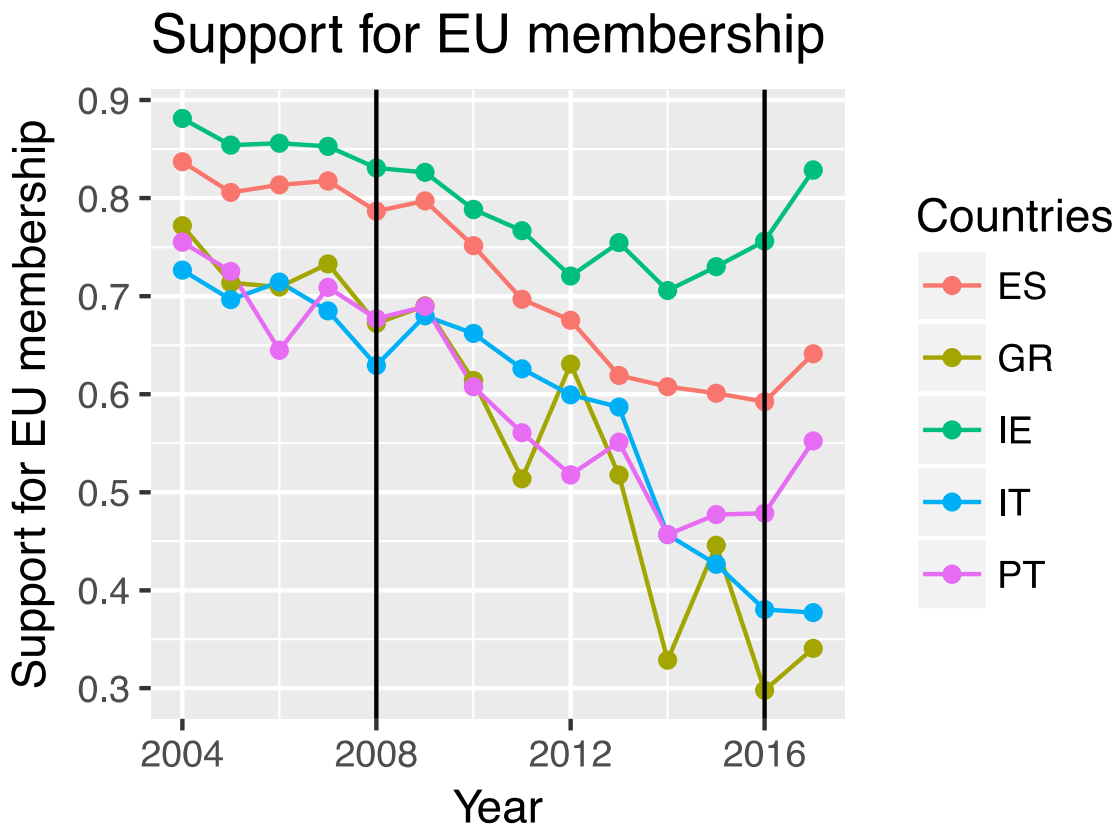


**Figure 14: Trends in EU support for Eurozone austerity countries before and after crisis.**

As shown above, there seems to be a parallel trend within the countries in the years before the crisis began, supporting the methodological choice of seeing them as one group. In addition, it seems that there is a gradual decrease in support for the EU throughout the entire crisis in all countries. As shown by the regressions excluding Greece, the decline in Greece is larger than in the other countries. However, it is not extremely large when compared to other Southern periphery countries like for example Italy and Portugal.

Another test of the validity of the methodological approach is to establish whether there is a similar parallel trend in the years before 2008 for the non-Eurozone austerity countries, and whether their trends after the crisis began are similar in nature.

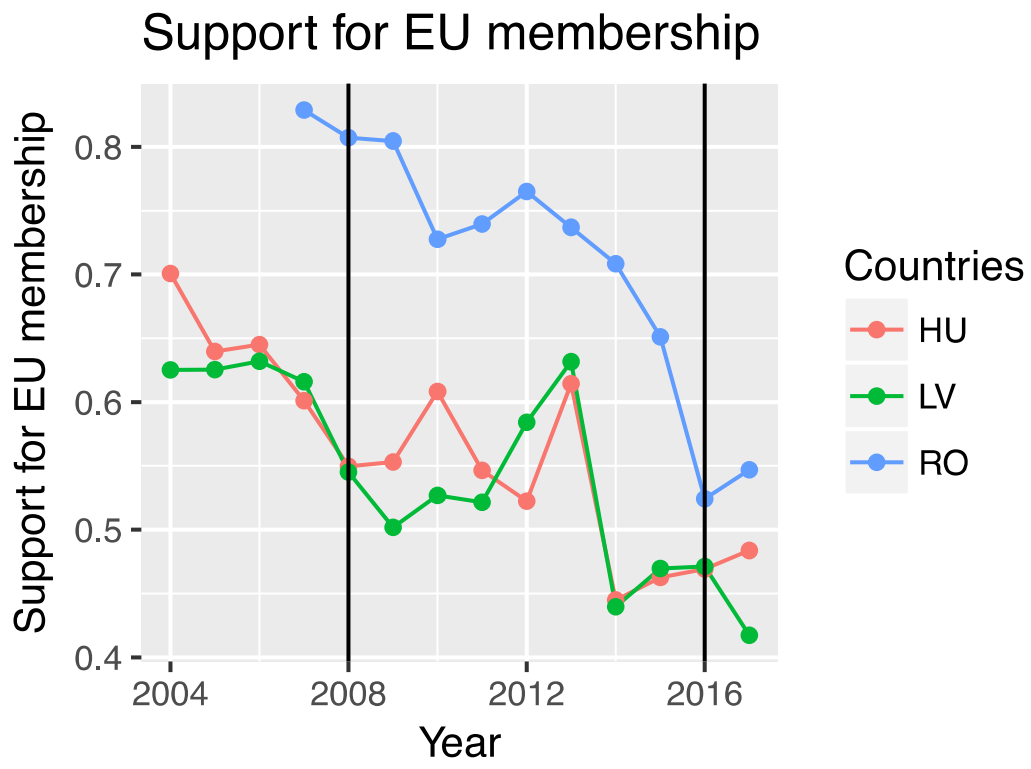


**Figure 15: Trends in EU support for non-Eurozone austerity countries before and after the crisis.**

It is possible to establish something like a parallel trend in 2007, when all countries were asked this question. The reason not all countries were asked this question from 2004 onwards seems to be that not all countries were EU members in the entire period, as Romania only joined in 2007. However, it seems that Latvia and Hungary are driving the largest decreases in support for the EU in this period. This could be understandable, as they were among those countries that had actually been members of the EU since 2004.

Altogether, this indicates that grouping these countries together makes empirical sense, but also that excluding Greece as an outlier does not fundamentally alter the conclusions stated earlier.

## 7.2 Support for the euro

I will next investigate how robust the conclusions about decline or increase in support for euro membership is to alternative model specifications, by excluding Greece. This will be

shown in regression table 8, found in the appendix. I will also investigate whether the two treatment groups actually constitute real groups with a common response to crisis.

There is little change between the two regressions, as the same coefficients reach significance under both specified models. This indicates that removing Greece does not fundamentally alter the results of the regressions. However, the fact that the positive Eurozone austerity coefficient decreases when removing Greece from the treatment group, indicates that Greece saw less decline in the support for the euro than the rest of the Eurozone austerity countries.

This indicates that the contribution of the Greek decline or increase in support for EMU membership is not large enough to modify an initial conclusion of no significant correlation between austerity policies and larger support for the euro in any of the periods analyzed. This is an important corroboration of the initial results.

The assumption that the Eurozone austerity groups are in fact a group, rather than simply a collection of countries, relies on the assumption that they have a parallel trend before and during the crisis. This assumption will be tested by looking for parallel trends in the Eurozone austerity countries in the figure below.

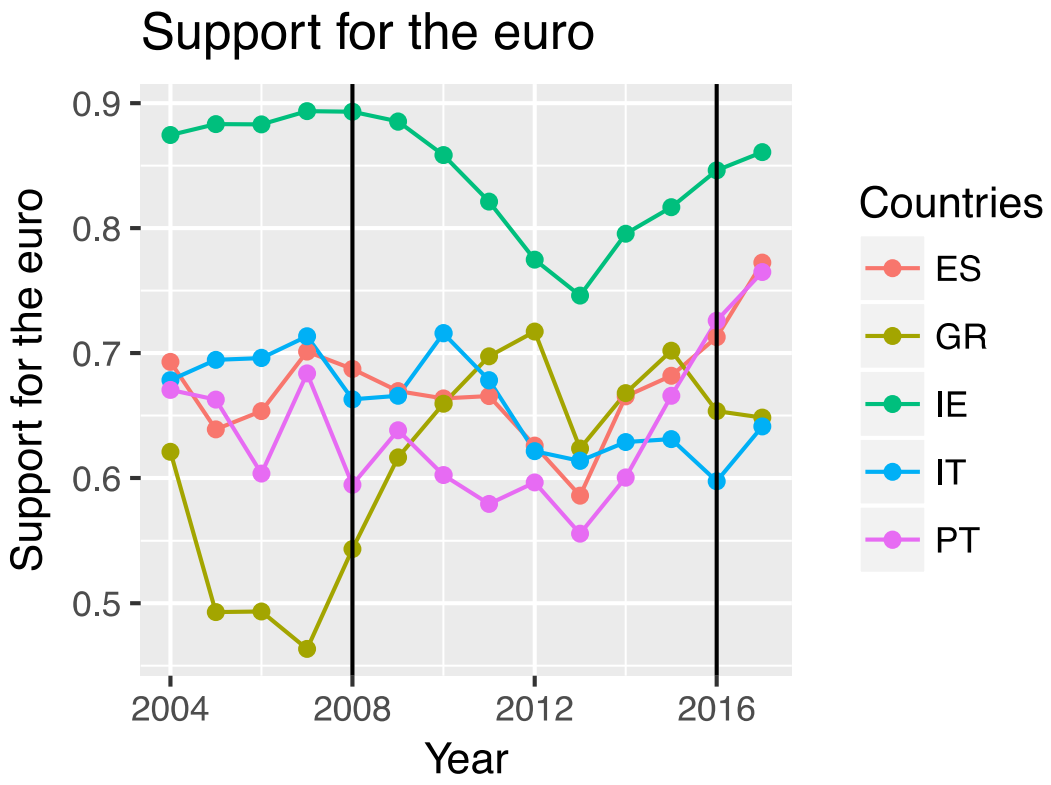


**Figure 16: Trends in euro support in Eurozone austerity group.**

It appears that the countries responded to the crisis in different ways throughout the crisis, and that they had different trends before the crisis began.

The figure provides visual evidence that there is no parallel trend within the Eurozone austerity group. Instead, we have some countries showing a small decline, with others experiencing large increases in support throughout the crisis. This undermines the belief in a parallel trend in the Eurozone treatment countries, and calls into question whether the Eurozone austerity countries are actually a group with a common response to the crisis when it comes to support for the euro.

A similar trend, with a crisis period marked by large variations, is found in the case of the non-Eurozone austerity countries, visualized through figure 17.

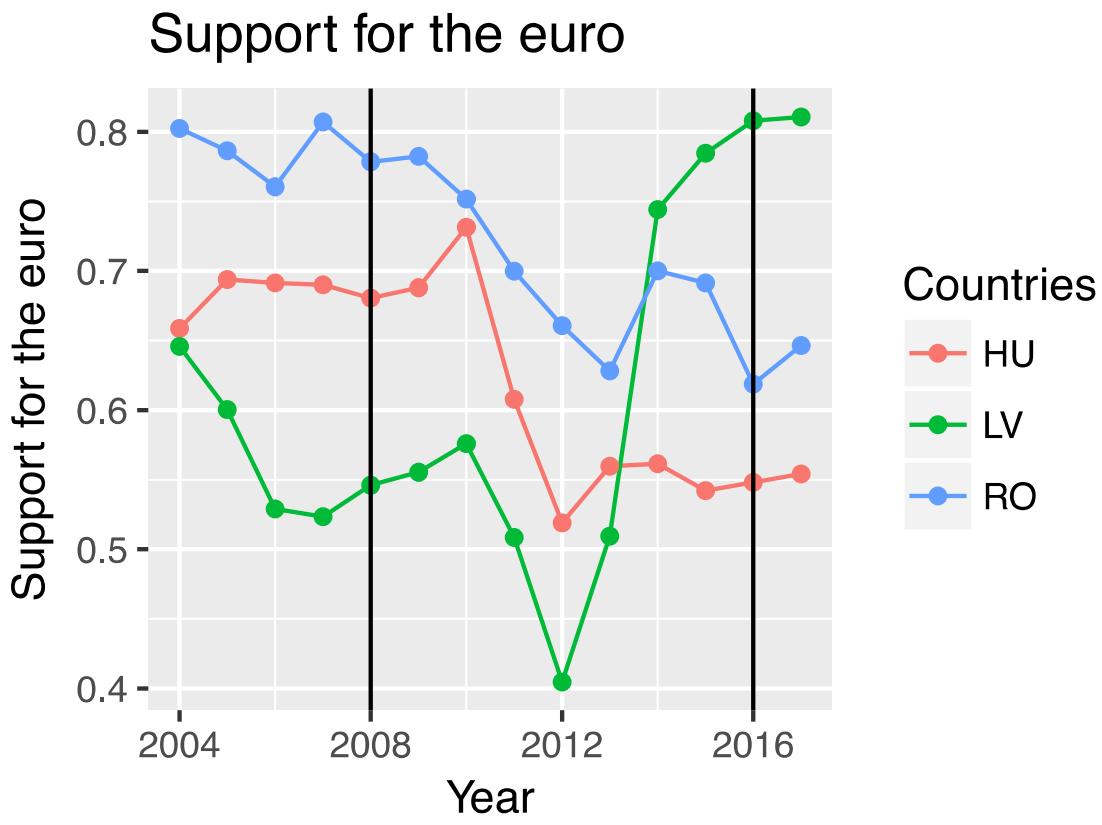


**Figure 17: Trends in euro support in non-Eurozone austerity group.**

Here, Latvia shows a decreasing level of support in the years before the crisis, much like Romania. On the other hand, Hungary's level of support for the euro increased before the crisis began. While there is no parallel trend before the crisis, there seems to be one for the duration of the crisis. This supports using the non-Eurozone countries as a single group, despite the large variations.

## 7.3 Institutional trust

### 7.3.1 Trust in the European Commission

Trust regressions have been among those with the largest difference-in-differences estimators, indicating that it is here the largest differences between the country groups are found. However, as the Greek crisis was so severe, we must investigate to what extent Greece serves as an outlier impacting the results. I will first analyze the results for trust in the Commission when not including Greece. These are shown in table 9, found in the appendix.

The same results are found both when including and excluding Greece, as coefficients for the Eurozone austerity countries remain significant, though smaller than before. This supports the conclusion that we have found a persistent cleavage between the Eurozone austerity countries and the rest when it comes to trust in the European Commission. It also shows that the effect previously found is not a mere consequence of Greece's levels, but rather a decline in all austerity countries. This applies to both periods.

We must also establish whether treating the Eurozone austerity countries as one treatment group makes sense for this variable. This can be done by establishing whether their development in trust has followed along a parallel trend before and after the crisis began.

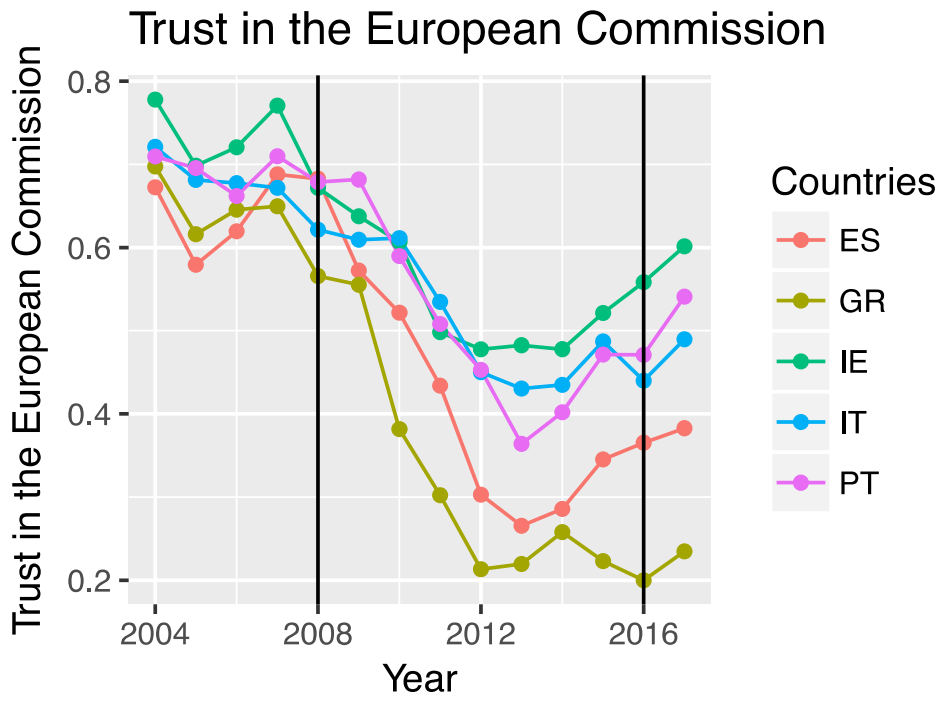


**Figure 18: Trends in European Commission trust in Eurozone austerity group.**

There are clear indications of a parallel trend in this case. While there are of course different degrees of decline and other variations in the period before the crisis, there are parallel differences in the pre-treatment period. There is a marked decline in all countries after the crisis began. What this means is that treating the PIIGS countries as one single treatment group is a logical choice, as their trust levels have largely shown similar signs of decreasing both before and during the crisis.

In addition, we must establish whether the same results are found in the non-Eurozone treatment countries.

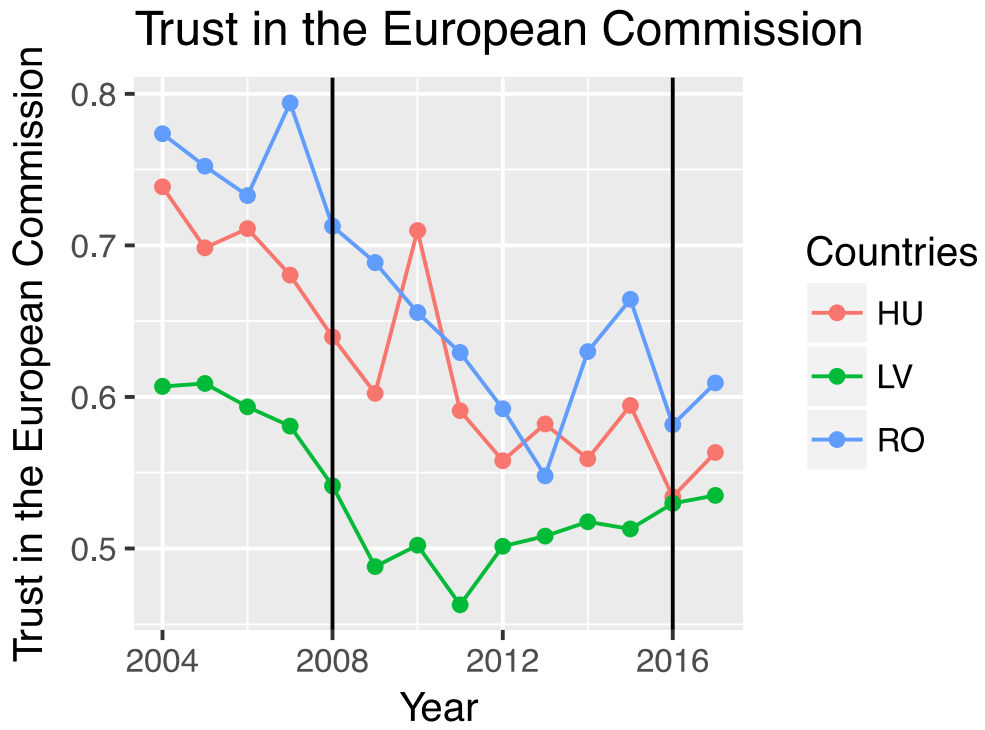


**Figure 19: Trends in European Commission trust in non-Eurozone austerity group.**

Here, the assumption holds. It seems as if there is a parallel decline between the start and end of the pre-treatment period, even though there is some variety in the years between 2004 and 2007. There are also parallel differences in the years between 2008 and 2016.

The tentative conclusion to this visual robustness check is that the parallel trend assumption is fulfilled even within the two treatment groups. This is important, as it tells us that the two groups are actually similar, rather than countries with nothing in common. In addition, for both groups of austerity country groups, there appears to be a parallel trend before and after the crisis. The regressions excluding Greece also strengthen the original findings.

### 7.3.2 Trust in the European Parliament

Another question is whether the declining trust for the European Parliament, the only institution critical of austerity, is still significant even when one takes Greece out of the treatment group. This is shown in table 10, found in the appendix.

As before, both Eurozone difference-in-differences estimators are significant. This shows that a decline in trust in Parliament in not only driven by the Greek case, but rather that there is a decrease in trust in all austerity countries. This strengthens the original findings.

However, we must also establish to what extent one or two countries act as outliers. This can tell us something about whether there is an effect of the crisis that is a true Eurozone austerity response, or rather the response of a small subset of countries. The graph below is instructive in showing these differences.

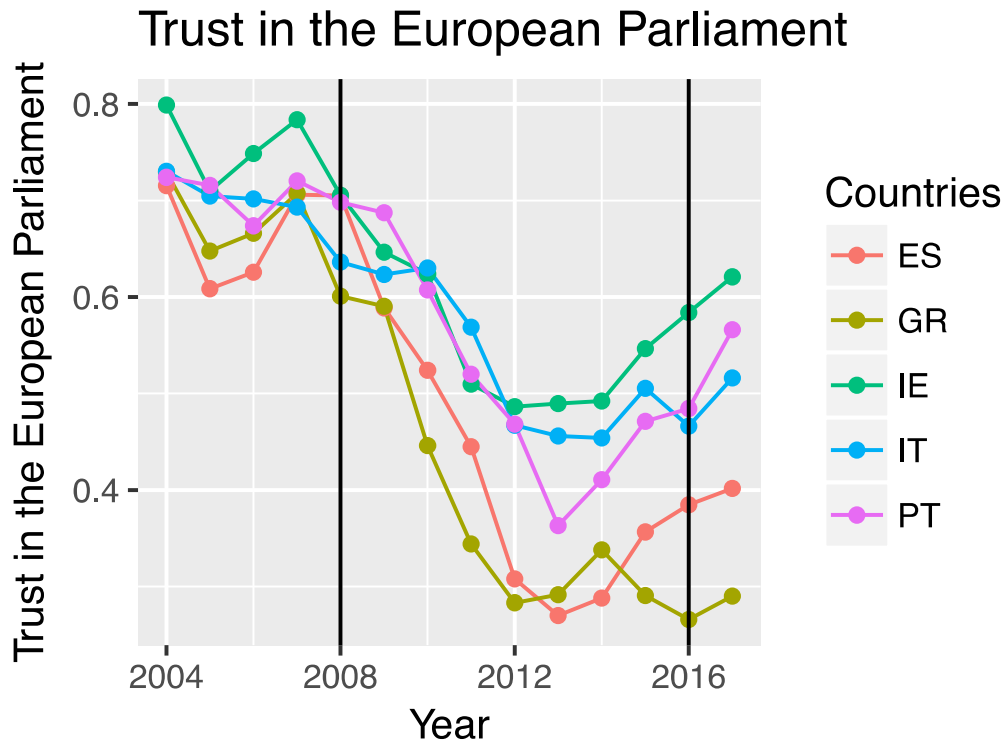


**Figure 20: Trends in European Parliament trust in Eurozone austerity group.**

As shown, there is a marked decline in all countries during the crisis. While Greece and Spain definitely show a larger decline than other countries, the graph supports the notion that the results are reflective of a trend in all countries. This means we can more confidently talk of a Eurozone austerity country response to the crisis in terms of their trust in the European Parliament, rather than simply a Greek or Spanish response.

There appears to be a parallel trend found in the Eurozone austerity countries also before the crisis began. The main trend is one of declining trust from the first to the last year of the pre-treatment period. This means that we can largely talk of a common pre-treatment parallel trend even within the Eurozone treatment group. As a consequence, it appears that the chosen grouping is warranted.

Additionally, we must establish whether the same is true for the non-Eurozone austerity countries. This is done with the graph below.

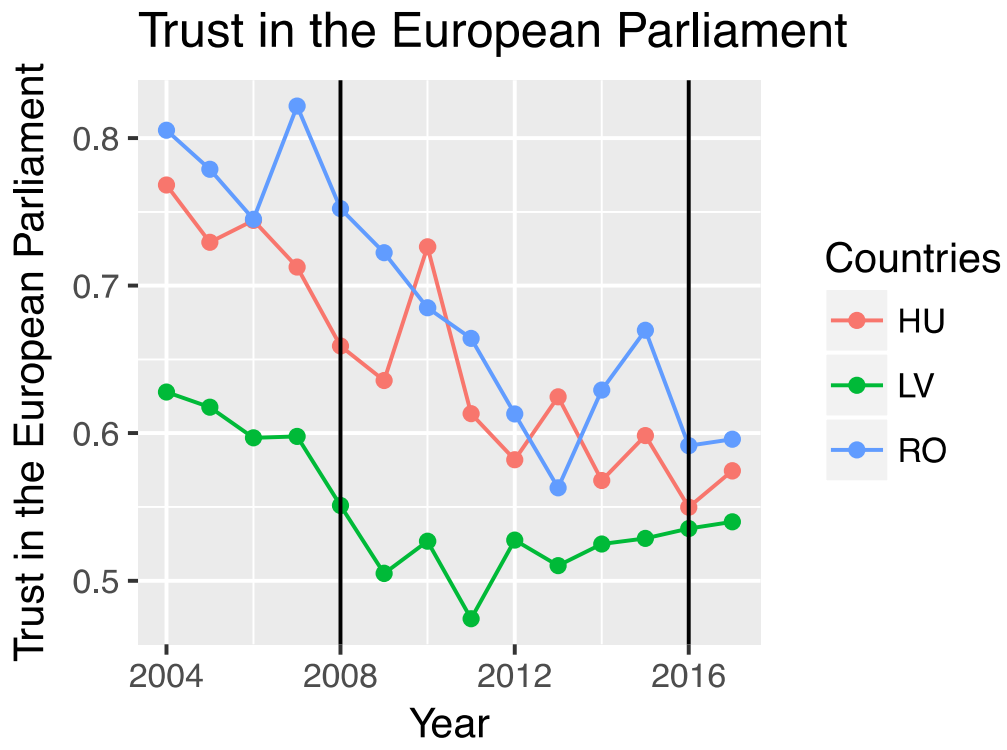


**Figure 21: Trends in European Parliament trust in non-Eurozone austerity group.**

There is apparently a parallel trend in the years before the crisis, as all countries experienced declines throughout the pre-treatment period. Additionally, it seems that there is less of a

uniform response throughout the crisis in this group: Where the Eurozone austerity countries exhibited a similar trend before and after the crisis, the response is differentiated to a larger degree in the non-Eurozone austerity countries. However, it appears that Latvia and Hungary are driving the large decrease in trust in this period. The fact that the response is so differentiated can be indication of why there is no significant effect of the crisis found among the non-Eurozone austerity countries.

It appears that the parallel trends assumption is largely fulfilled for both treatment groups. However, where the Eurozone austerity countries experienced a very similar response throughout the entire crisis, there are larger variations within the different countries in the non-Eurozone group. Nevertheless, my chosen country grouping seems to make sense, as the trends within the groups are largely parallel throughout the crisis.

### 7.3.3 Trust in the European Central Bank

One would also expect similar declines in trust among all austerity countries when it comes to ECB trust. However, despite a belief that there are declines in all countries, we must ascertain that Greece is not the only country creating significant differences between Eurozone austerity countries and the non-austerity countries. Regressions for central bank trust excluding Greece are shown in table 11, found in the appendix.

There are still significant decreases in trust for the Eurozone austerity countries, but the size of the difference-in-differences estimator for the Eurozone austerity countries has decreased quite a bit as Greece is no longer counted as a part of the treatment group. However, the fact that Greece is not the only country causing a significant decline indicates that declining trust was felt in the entire Eurozone.

However, we must still establish whether the treatment groups truly exhibit a common response to the crisis. This will first be done by analyzing the trends of the Eurozone austerity countries individually both before and after the crisis.

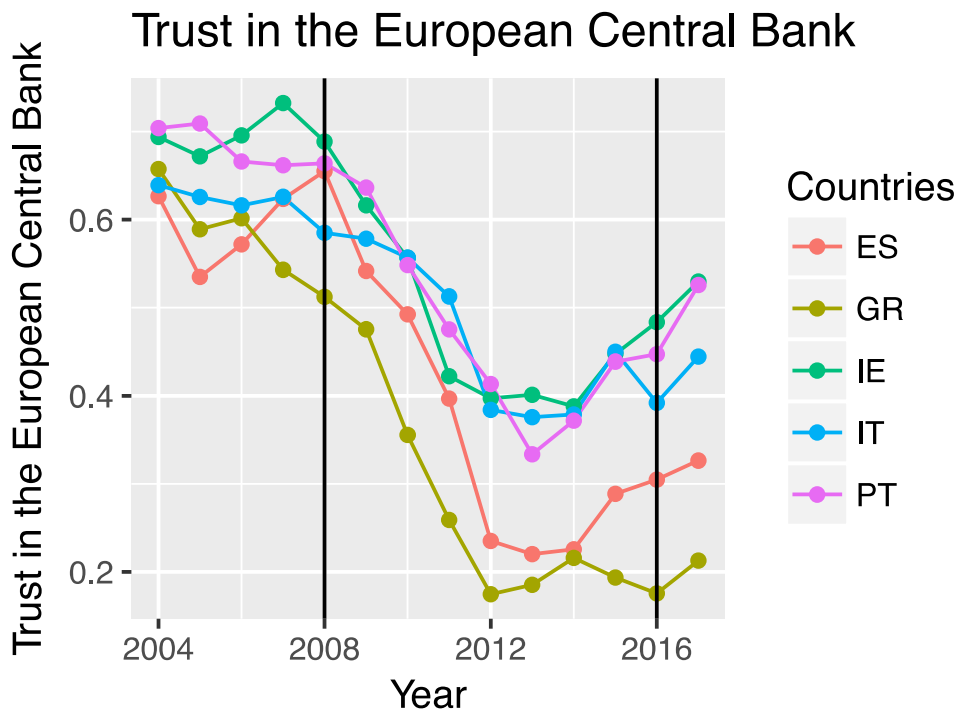


**Figure 22: Trends in central bank trust in the Eurozone austerity group.**

Figure 22 shows less of a parallel trend in the years before the imposition of the treatment than that found for other trust variables. However, the main trend is one of declining trust between the beginning and the end of the pre-treatment period.

The declines in all of the countries after the crisis started are largely parallel, and there are parallel differences found for all countries when seeing the differences in trust between the beginning and the end of the crisis. The fact that there is something of a uniform trend during the crisis, combined with largely similar pre-treatment trends, indicates that grouping the Eurozone austerity countries as one group is indeed warranted.

One should also establish whether the same pattern is found in the non-Eurozone austerity countries. This is shown in figure 23.

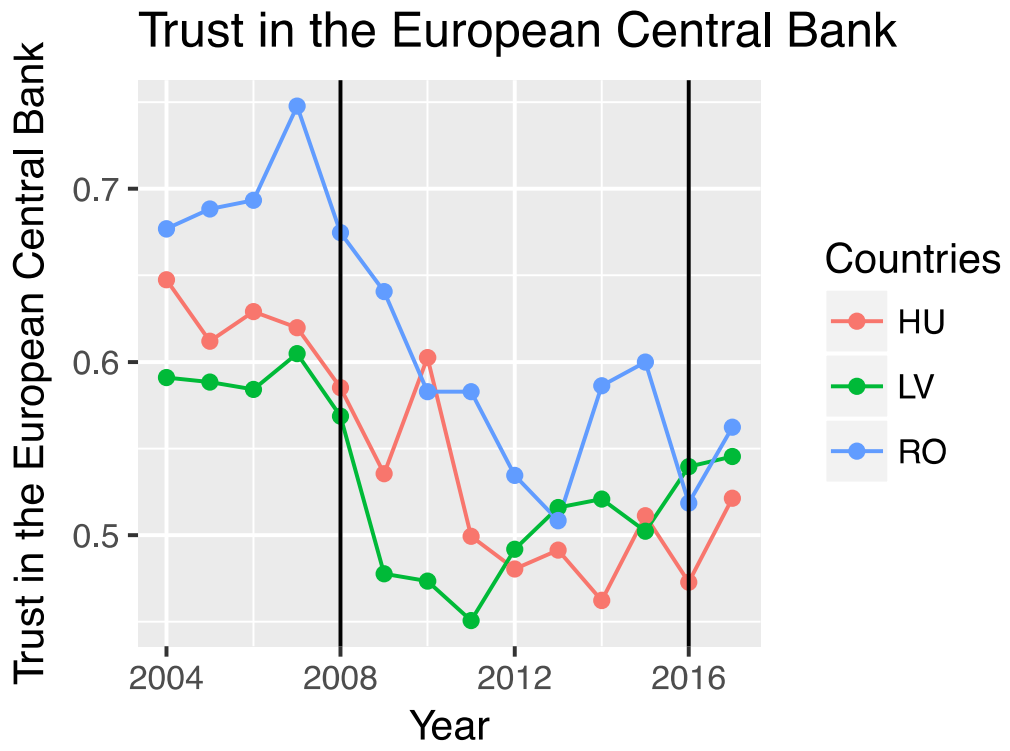


**Figure 23: Trends in central bank trust in non-Eurozone austerity group.**

Here, there is a clear indication of declining trust before the crisis, even though there is much variation that may make it more difficult to establish a true pre-treatment trend. However, the countries do not seem to have the same uniformly negative perception of the European Central Bank after the crisis began as the Eurozone austerity countries. This may be a result of the differing levels of involvement of the central bank in the crisis resolution for the different groups of austerity countries.

As a summary, it could be said that the two groups are composed of countries with mainly homogenous trends in trust in the pre-treatment years. However, there is some variation before the crisis began. This same variation is also found within both groups after the crisis began. Nevertheless, they still appear to constitute two logical groups which have both exhibited similar responses to the crisis in terms of institutional trust.

### 7.3.4 Satisfaction with EU democracy

The last issue to be investigated is whether there is an entirely Greece-driven effect on satisfaction with democracy, or whether the encroachment of European institutions upon what was commonly a core state power has created an effect in all of the austerity countries. This is shown in regression table 12, found in the appendix.

For the first period, statistically significant declines in satisfaction are not driven primarily by Greece being counted as an austerity country. This is important, and strengthens the argument for an austerity effect in the entire first phase. However, this effect must not be overstated, as it may have come about as a result of the crisis being worse in some countries.

The Eurozone difference-in-differences estimator loses significance once Greece is excluded from the treatment group. This indicates that the persistent effect of declining democracy satisfaction being larger in the Eurozone, an effect that was observed as late as 2016, seems to be largely a product of the persistent decline in Greece. This is in line with what might be assumed, namely that prolonged recession in this country might have caused a decline in trust that was more severe than in those countries with shorter recessions. It is interesting that something as closely linked to institutional trust as democracy satisfaction is not significantly affected in the long run, whereas the declining trust in European institutions actually is. This shows that this is the only variable where actually excluding Greece means that the coefficient loses its significance. This means that this is the one variable for which Greece could be treated as a problematic outlier.

Whether any other outlier apart from Greece contributes to the lost significance, will be shown by analyzing visually the differing levels of support before and after the crisis.

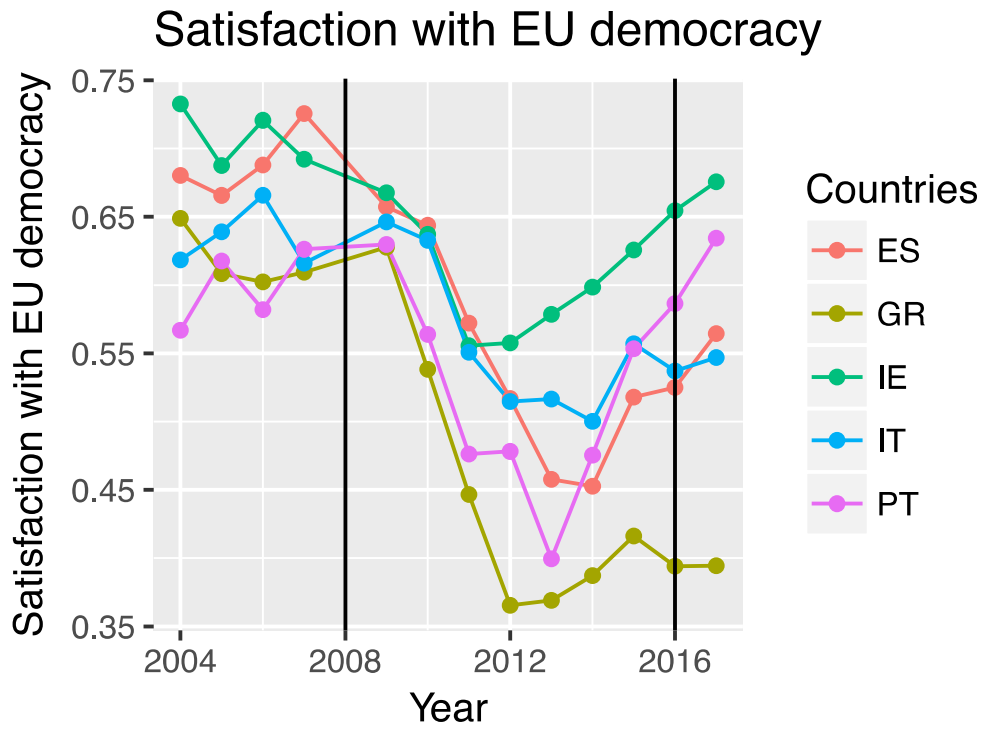


**Figure 24: Trends in EU democracy satisfaction for EU austerity countries.**

As shown by the figure, there is something of a parallel trend even before the crisis began, though it is marked by variations. There is also a clear indication of a uniform response to the crisis, as all of the Eurozone austerity countries' democracy satisfaction decline in the years after the crisis began. This is also reflected in the first regression where Greece does not figure as a treatment group, which covers the period 2007-2012.

However, the graph also makes clear that something changed in 2013-2015. These years were marked by large increases in trust in all Eurozone austerity countries but Greece. This can help explain why the declines in democracy satisfaction lose their significance in the second regression when Greece is excluded from the treatment group.

We must also establish whether the same relationship between the countries is found in the case of the non-Eurozone austerity countries.

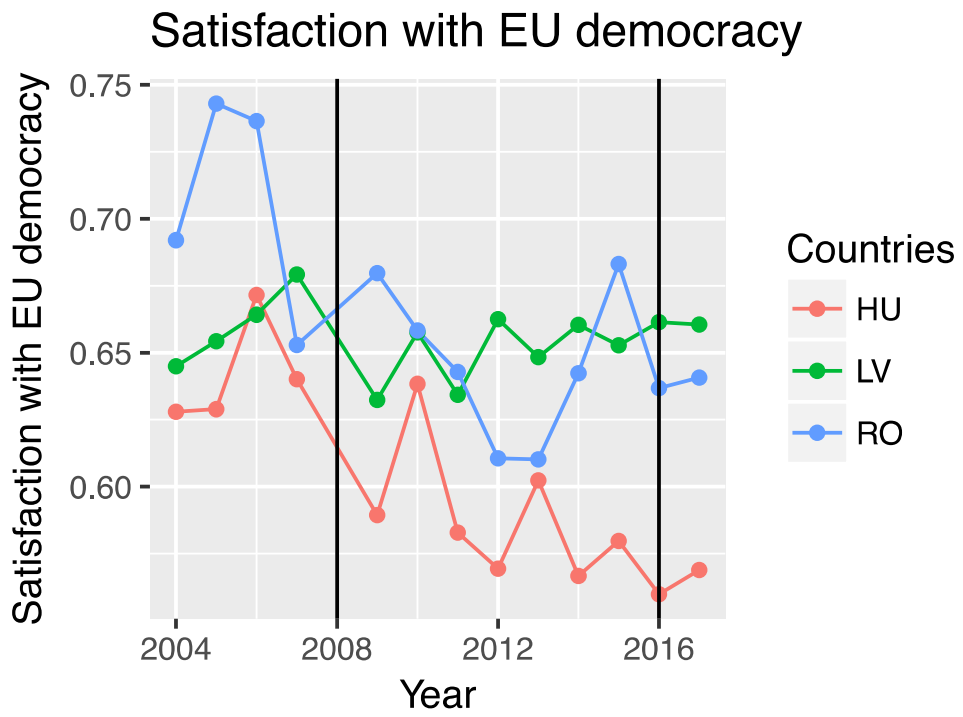


**Figure 25: Trends in EU democracy satisfaction for non-Eurozone austerity countries.**

Figure 25 shows something approaching parallel differences before and during the crisis, even though large variations may make this more difficult to establish here. In this way, it serves as a potential visualization of why there is no real significant effect of the crisis found in the non-Eurozone austerity countries. As shown by the figure, there is very little parallelity in trends especially before the crisis began.

This tells us that fiscal consolidation, in the form of austerity, may have had a different impact inside the Eurozone than outside. However, one should not necessarily overstate the differences between the different groups. In both of these cases, there is a clear stabilization of the declines in about the same period. This period coincides with the relative calm in the markets that followed the ECB commitment to do "whatever it takes" to save the euro, showing a new approach to the solution of the sovereign debt crisis.

Altogether, I believe my findings indicate that Greece has not unduly influenced the results of the regressions. Furthermore, I also believe my grouping of countries, by treating all countries with financial assistance as either Eurozone or non-Eurozone austerity countries, is justified based on the largely similar response they have displayed to the crisis.

# 8 Conclusions and further research agenda

In this chapter, I will describe some of my main conclusions, and discuss in greater detail what can be inferred from them. A natural addition to this would further be to discuss what must be left to further research into the questions posed in my research.

The common thread underlying all of my results is that they indicate a legitimacy crisis, as there is a persistent decline in both support for EU membership and the euro as well as trust in EU institutions that is larger in the austerity countries than in the non-austerity countries. Given that the legitimacy of the union might be the most important currency it has to ensure its own future survival, such a legitimacy crisis might be a problem for the union as a whole.

It may be difficult to precisely disaggregate what austerity and unemployment has contributed to the decline in support and trust among the austerity countries. However, finding a larger level of decline in the austerity countries serves as an important validation of the previous literature of the earlier literature on the political consequences of the crisis. My thesis also moves us beyond the already existing literature, by asserting that there were larger declines in trust and support for EU institutions as late as in 2016, after the crisis.

## 8.1 Support for the EU

As clearly shown by my regressions, there is a difference in how populations assessed EU membership in the aftermath of the crisis. It is clear that there is a large decline in support for EU membership among all countries, but it is larger in the Eurozone austerity countries than the others. What this means is that the legitimacy of the membership of the European Union might be weaker in these austerity countries than in non-austerity countries.

This seems to confirm previous findings of a correlation between perceived utilitarian benefits and support for EU membership (Gabel 1998:346). Even though unemployment increased in all parts of the union, it is likely that the membership may have been felt to be less beneficial in these austerity countries, as increases could have been partially caused by pro-cyclical austerity policies. Thus, austerity could have caused declines through making unemployment worse. In this sense, there would be a mutually reinforcing effect of both unemployment and austerity that would contribute to declines in support in the Eurozone

austerity countries that are larger than those found in the non-austerity countries. Another possible explanation is that the larger number of monetary policy tools available to the non-Eurozone austerity countries could have contributed to a smaller decrease in support, as these countries were more fully equipped to handle an economic crisis.

There does not seem to be a consistent effect of austerity itself that is divorced from the unemployment increases it might arguably have created. What might be inferred from this is that the support for the EU is only impacted because utilitarian calculations are being recalibrated as a result of increased unemployment in all Eurozone austerity countries. What this means is that the impact of these EU programs, such as austerity, may not have had as adverse an effect if the economic consequences had been less severe. This is in line with the findings of Armingeon and Ceka (2014:104). These findings have also been confirmed to apply to an even longer period, as there is a similar relationship found between the variables in the period 2007-2016. In other words, my hypotheses largely seem to be confirmed.

It would be interesting to establish whether we are in fact seeing a more diverse response inside the austerity countries, and whether the support for the European Union at the individual level is dependent upon perceived individual decline in welfare. While my research has focused upon aggregated declines, in the form of country group declines, it is not necessarily the case that the decline in support is the same inside the austerity countries.

There is reason to analyze whether one can find correlations between those hit hardest by austerity, in the form of welfare cuts, and an especially large decline in support for the EU. Previous research indicates that access to health care has worsened for some, and to a larger degree in Greece than in other countries with similar data (Stuckler et al. 2011:125).

As there is reason to believe that the negative effects of austerity have been disproportionately distributed, there is also reason to believe that the utilitarian benefits of membership are felt to a lesser degree in some strata of society. Using a similar operationalization, it might be possible to correlate this with both income data and other socioeconomic variables to establish whether there is less support for the EU in disadvantaged strata after the crisis.

In other words, it seems that my hypotheses about persistent differences in support between austerity and non-austerity countries are largely supported, but that it is impossible to find a direct causal link between austerity and declining support that is independent of larger unemployment levels in these countries. This may show that austerity policies mainly have the power to lower support for the EU through increasing unemployment in times of economic crisis. However, much is still unexplored when it comes to exploring what strata of society in the austerity countries have primarily showed this decreased support.

## 8.2 Support for the euro

Secondly, it must be assessed what avenues for future research are left open by my findings relating to support for the euro in the austerity countries compared to the non-austerity countries.

It is only the non-austerity countries and non-Eurozone austerity countries that there is a significant decline in the support for the euro, and this effect is only found in the first phase of the crisis. This strengthens the assumptions of Banducci et al. (2009) that issues apart from utilitarian benefits of euro membership might be more important for determining support. Another explanation for the lack of significant results in the second phase might be that people objected mainly to the handling of the crisis when it was its most severe, and not to the euro itself. This weakens the hypothesis for a persistent decline in support for the euro.

Despite the lack of statistical insignificance of the results, the coefficients seem to confirm patterns of decline in support inside and outside of the Eurozone found in previous research. These indicate that it is mainly the countries outside the Eurozone driving the declines, with support inside the Eurozone remaining steady (Hobolt and Wratil 2015:244). I find the same results in my regressions as there has been no significant decline in the Eurozone austerity countries. In this way, my research seems to confirm what is found in previous research into support for the euro before and after the sovereign debt crisis.

Hobolt and Wratil find evidence that utilitarian appraisals have played a larger part in determining support inside the Eurozone than outside (Hobolt and Wratil 2015:250). This could seem likely, such as emergency funding in times of economic downturns, could be perceived to be more accessible to those inside the Eurozone than to those that are left

outside. The fact that Eurozone codependence economically could have made emergency funding more likely could have lead respondents inside the Eurozone austerity countries to express increased support. This would be a potential explanation for why the difference-in-differences estimators for the Eurozone austerity countries are positive and so large. The fact that these results could be due to random chance, however, means that undue weight should not be placed upon the results. This means that austerity may not be enough to impact support for the euro.

An avenue for further exploration is the differentiation of levels of euro support in the wake of the crisis. It is, much as is the case for support for the European Union, to be expected that support for the euro would show the same variations at the individual level, as there is variation within different countries. Such variance could be explained for example by socioeconomic variables, like income and education levels. By analyzing both whether there are differences between the different countries, as well as within the different countries, one would interestingly nuance the understanding of how and under what conditions support for the euro is impacted.

Such an analysis would have been highly interesting, but ultimately outside the scope of my thesis. As it stands now, my study finds support for my hypotheses that support for euro would decrease in the austerity countries, but only finds this decrease in the non-austerity countries. This supports the notion that euro membership seemed less attractive during the crisis. However, by finding no significant effect for increases in the Eurozone austerity countries, it finds no support for the hypothesis that any increase or decrease would be larger in the Eurozone austerity countries.

## 8.3 Trust in institutions and democracy

I will now outline what can be inferred from my analysis about whether austerity seems to have an impact upon general trust in democracy as well as in specific institutions. Furthermore, I will discuss whether my research opens other avenues of further exploration.

### 8.3.1 Satisfaction with democracy

As shown earlier, there is a significant and direct effect of austerity on satisfaction with EU democracy at a general level. This applies to the Eurozone austerity countries in the first phase of the crisis. There is also a significant difference, which is larger, when not controlling for this unemployment. This effect is significant for both periods of the crisis, and it is largely in line with the causal mechanisms supposed by my hypotheses.

What this means is that one may talk about a general crisis effect in both periods analyzed. This could be caused by the same general decline in institutional trust that follows the decline in economic conditions shown by Roth et al. (2013). In such an explanation, a decline in trust in the institutions that make up EU democracy is logically followed by declining satisfaction with democracy itself. The fact that most countries experienced an increase in unemployment in this period indicates that this may be a logical causal mechanism for explaining declining democracy satisfaction more generally, as this same effect is found both inside and outside austerity countries.

However, the decline is larger in the Eurozone austerity countries. This larger decline is significant and independent of the levels of unemployment. This requires us, as mentioned previously, to look to the mechanisms of the austerity programs themselves. One potential reason for how austerity could cause a deterioration in democracy satisfaction in itself is that it constrains the available policy options for national governments. Such a constraint is likely to have been seen as a bigger problem in the earliest phase of the crisis, when the crisis was at its most severe in many countries. The fact that many of the countries had exited their austerity programs as the crisis entered into its latter phase can help explain why no direct effect of austerity is found for the second period analyzed.

This analysis leaves some questions both unasked and unanswered. One important avenue that should still be explored is whether the differences within the different austerity countries are dependent upon the design of the austerity programs. Such an approach would take into account the different ways that the two larger states in the Southern periphery had more political leeway than the smaller states (Perez and Matsaganis 2017:10).

It is plausible that this leeway would lead to different levels of satisfaction with European Union democracy. If austerity measures were implemented in such a way as to amount to a wage cut in some states, while they only concerned themselves things with things such as financial sector reform, this could make a large difference. Such differences did in fact exist, as the severity of the austerity programs differed across countries (ibid. 2017:10). It is plausible that the latter type of austerity measures would have a more significant impact on larger parts of the populace. In essence: It is likely that public sector wage and benefits cuts would be felt as a larger problem for the many than changes in the institutions that make up the financial system of a country.

This differentiation within the austerity country group would require a more nuanced operationalization of the concept "austerity countries". Whereas the operationalization I have favored in this thesis is dichotomous, as countries have been coded as austerity or non-austerity based on whether they have signed a Memorandum of Understanding with the EU institutions or not, this is not the only possible operationalization. Another would be an ordinally coded treatment variable, with categories corresponding to the nature of the policies and their invasiveness. Here, countries without austerity measures would be coded 0, those with only structural reform demands would be coded 0.5 and those with wage and benefits cuts in addition to structural reform would be coded 1. Such a project would be more expansive but would likely present a clearer view of what kind of externally imposed austerity would be needed to create the largest declines in democracy satisfaction.

It appears that my hypotheses are largely supported. While my research has gone far in showing that austerity in itself might cause some form of democratic detachment, it is not clear how severe the austerity measures must be for this to take effect.

### 8.3.2 Trust in EU institutions

There is a general trend in the development of trust in specific institutions in the austerity countries. That trend is one of declining trust in all of the European institutions investigated. These declines are larger in the austerity countries, but are also found throughout the crisis both inside and outside the austerity countries. What this seems to suggest is that the reason is not only a public reaction to the austerity, but rather a general anti-EU sentiment in all countries. Such a conclusion is strengthened by a similar decline for the European Parliament, with its anti-austerity position, to the one for the two EU institutions that belonged to the Troika administering austerity.

A larger decline in the austerity countries could in my view primarily have come about through two different mechanisms: Either as a reaction to austerity itself, or through the way austerity worsened the economic conditions of the austerity countries. Here, my conclusion is that only the latter interpretation is supported by the analysis of declining trust in the ECB. For trust in the Commission and the Parliament, there seems to be a direct austerity effect in the first period of the crisis. This might have been brought about as a result of the same mechanism that caused declines in general satisfaction with democracy. It might especially be the case that the crisis became less severe and more countries exited the austerity programs in the latter phase of the crisis. This might have caused the direct effect to have lost its significance in the latter phase of the crisis. However, it appears that my hypotheses of an austerity effect are supported, but not the hypothesis related to a persistent effect.

Interestingly, there is an apparent direct effect of unemployment on trust in the ECB. This effect is only found in the analysis spanning the years 2007-2016. One potential reason for this might be that citizens of countries with high unemployment might be less supportive of how the ECB has exercised its powers over monetary policy. Given that monetary policy instruments like interest rate changes are valuable tools for combatting unemployment increases, a possible explanation might be that controversial decisions made by the ECB could create lower trust.

Much as for the general decline in democracy satisfaction, a more fine-grained operationalization of the austerity countries might be interesting even here. It is not necessarily a given that the decline in trust would be the same for all types of austerity

measures, especially those without a direct effect on living wages and daily life. A logical expectation would be that the decline in trust would become gradually larger the more severe the imposed austerity measures were.

Using a similar coding scheme as laid out before, one might be able to delineate whether there are larger increases among those who have been recipients of more severe austerity, compared to those whose only conditions have dealt with structural reform. This would be important to nuance the results of my study, which nevertheless seems to support my hypotheses, by showing whether austerity is in fact a unified concept. One might, by looking at austerity as a more complex phenomenon encompassing a wider range of measures that differ in severity, understand to what degree the type of austerity measure imposed contribute to worsening declines in democracy satisfaction.

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# Appendix

| | Support for EU membership | |
|---|---|---|
| | (1: 2007- 2012) | (2: 2007-2016) |
| Baseline difference, Eurozone austerity countries, 2007 | -0.035 | -0.035 |
| | (0.064) | (0.064) |
| Baseline difference, non-eurozone austerity countries, 2007 | 0.049 | 0.049 |
| | (0.043) | (0.043) |
| Change, non-austerity countries | -0.033* | -0.156*** |
| | (0.014) | (0.025) |
| Difference-in differences estimator, Eurozone austerity countries | -0.110*** | -0.081 |
| | (0.022) | (0.049) |
| Difference-in-differences estimator, non-Eurozone austerity countries | -0.027 | -0.036 |
| | (0.017) | (0.050) |
| | | (0.050) |
| Initial level, non-austerity, 2007 | 0.723*** | 0.723*** |
| | (0.025) | (0.025) |
| Observations | 77,965 | 78,287 |
| $R^2$ | 0.008 | 0.040 |
| Adjusted $R^2$ | 0.008 | 0.040 |
| *Note:* | *p<0.05; **p<0.01; ***p<0.001 | |

**Table 7: Regressions of EU support. Eurozone austerity group does not include Greece. All regressions are based on individual-level data.**

| | Support for the euro | |
|---|---|---|
| | (1: 2007-2012) | (2: 2007-2016) |
| Baseline difference, Eurozone austerity countries, 2007 | 0.122* | 0.122* |
| | (0.061) | (0.061) |
| Baseline difference, non-eurozone austerity countries, 2007 | 0.048 | 0.048 |
| | (0.081) | (0.081) |
| Change, non-austerity countries | -0.072** | -0.031 |
| | (0.026) | (0.031) |
| Difference-in differences estimator, Eurozone austerity countries | -0.032 | -0.005 |
| | (0.026) | (0.043) |
| Difference-in-differences estimator, non-Eurozone austerity countries | -0.075** | 0.002 |
| | (0.029) | (0.130) |
| Initial level, non-austerity, 2007 | 0.637*** | 0.637*** |
| | (0.044) | (0.044) |
| Observations | 105,064 | 105,236 |
| Adjusted $R^2$ | 0.014 | 0.009 |
| *Note:* | | *p<0.05; **p<0.01; ***p<0.001 |

**Table 8: Regressions for euro support. Eurozone austerity group does not include Greece. All regressions are based on individual-level data.**

| | Trust in the European Commission | |
|---|---|---|
| | (1: 2007-2012) | (2: 2007-2016) |
| Baseline difference, Eurozone austerity countries, 2007 | 0.075* | 0.075* |
| | (0.034) | (0.034) |
| Baseline difference, non-eurozone austerity countries, 2007 | 0.053 | 0.053 |
| | (0.057) | (0.057) |
| Change, non-austerity countries | -0.123*** | -0.141*** |
| | (0.018) | (0.026) |
| Difference-in differences estimator, Eurozone austerity countries | -0.165*** | -0.109** |
| | (0.038) | (0.035) |
| Difference-in-differences estimator, non-Eurozone austerity countries | -0.014 | -0.007 |
| | (0.033) | (0.047) |
| | | (0.047) |
| Initial level, non-austerity, 2007 | 0.636*** | 0.636*** |
| | (0.028) | (0.028) |
| Observations | 101,577 | 101,749 |
| Adjusted $R^2$ | 0.030 | 0.032 |
| *Note:* | | *p<0.05; **p<0.01; ***p<0.001 |

**Table 9: Regressions for Commission trust. Eurozone austerity group does not include Greece. All regressions are based on individual-level data.**

| | Trust in the European Parliament | |
|---|---|---|
| | (1: 2007-2012) | (2: 2007-2016) |
| Baseline difference, Eurozone austerity countries, 2007 | 0.074* | 0.074* |
| | (0.035) | (0.035) |
| Baseline difference, non-eurozone austerity countries, 2007 | 0.061 | 0.061 |
| | (0.061) | (0.061) |
| Change, non-austerity countries | -0.126*** | -0.147*** |
| | (0.017) | (0.027) |
| Difference-in differences estimator, Eurozone austerity countries | -0.168*** | -0.099** |
| | (0.040) | (0.037) |
| Difference-in-differences estimator, non-Eurozone austerity countries | -0.013 | -0.018 |
| | (0.037) | (0.049) |
| Initial level, non-austerity, 2007 | 0.653*** | 0.653*** |
| | (0.030) | (0.030) |
| Observations | 102,619 | 102,791 |
| Adjusted $R^2$ | 0.031 | 0.033 |
| *Note:* | *p<0.05; **p<0.01; ***p<0.001 | |

**Table 10: Regressions for Parliament trust. Eurozone austerity group does not include Greece. All regressions are based on individual-level data.**

| | Trust in the European Central Bank | |
|---|---|---|
| | (1: 2007-2012) | (2: 2007-2016) |
| Baseline difference, Eurozone austerity countries, 2007 | -0.016 | -0.016 |
| | (0.034) | (0.034) |
| Baseline difference, non-eurozone austerity countries, 2007 | -0.018 | -0.018 |
| | (0.044) | (0.044) |
| Change, non-austerity countries, 2007-2012 | -0.175*** | -0.193*** |
| | (0.018) | (0.028) |
| Difference-in differences estimator, Eurozone austerity countries, 2007-2012 | -0.130*** | -0.061 |
| | (0.038) | (0.035) |
| Difference-in-differences estimator, non-Eurozone austerity countries, 2007-2012 | 0.018 | 0.036 |
| | (0.029) | (0.048) |
| | | (0.048) |
| Initial level, non-austerity, 2007 | 0.679*** | 0.679*** |
| | (0.027) | (0.027) |
| Observations | 101,104 | 101,276 |
| Adjusted $R^2$ | 0.051 | 0.050 |
| *Note:* | | *p<0.05; **p<0.01; ***p<0.001 |

**Table 11: Regressions for central bank trust. Eurozone austerity group does not include Greece. All regressions are based on individual-level data.**

| | Satisfaction with EU democracy | |
|---|---|---|
| | (1: 2007-2012) | (2: 2007-2016) |
| Baseline difference, Eurozone austerity countries, 2007 | 0.041 | 0.041 |
| | (0.034) | (0.034) |
| Baseline difference, non-eurozone austerity countries, 2007 | 0.039 | 0.039 |
| | (0.044) | (0.044) |
| Change, non-austerity countries | -0.033 | -0.045 |
| | (0.018) | (0.028) |
| Difference-in differences estimator, Eurozone austerity countries | -0.113** | -0.041 |
| | (0.038) | (0.035) |
| Difference-in-differences estimator, non-Eurozone austerity countries | -0.011 | -0.001 |
| | (0.029) | (0.048) |
| Initial level, non-austerity, 2007 | 0.622*** | 0.622*** |
| | (0.027) | (0.027) |
| Observations | 69,548 | 70,058 |
| Adjusted $R^2$ | 0.018 | 0.011 |
| *Note:* | *p<0.05; **p<0.01; ***p<0.001 | |

**Table 12: Regressions for satisfaction with EU democracy. Eurozone austerity group does not include Greece. All regressions are based on individual-level data.**