

**The ECB's Independence under Siege –
Political Audience Cost Theory and
Unconventional Monetary Policy**

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1. Introduction

Since the beginning of the global financial crisis in the fall of 2008, the European Central Bank (ECB) and other central banks around the world have reached far beyond classical monetary policy in order to prevent the collapse of the financial system. As interest rates hit the zero lower bound, these banks engaged in unprecedented levels of unconventional monetary policy, such as credit and liquidity facilities, large-scale asset purchases, and forward guidance (Issing 2013). Central banks justified their policies by citing the impairment of the traditional transmission mechanism of interest rate decisions because of the looming possibility of government default, the dominance of credit risk in business thinking, and the need to battle the fall in output and the rise in unemployment (Hannoun 2012). Today, several years after any immediate risk of financial collapse has passed and despite the questionable track record of unconventional monetary policy, monetary policy has still not normalized, leaving us wondering why the ECB continues to engage in unconventional monetary policy.

The pre-crisis consensus on monetary policy can be summarized in four central hypotheses: macroeconomic stability can be achieved through price stability, monetary policy-making could and should be separated from regulation and supervision, the short-term interest rate is the only policy tool necessary, and the “keep your own house in order” doctrine that, as long as every regulatory agency in every country ensured the soundness of their respective financial institutions, the whole financial system was in order; all central banks had to do was to keep inflation at home in check (Borio 2011). This consensus was strengthened by two additional developments: the perceived failure of Keynesianism as an economic concept in the 1970s and Germany’s success with the Bundesbank’s pragmatist version of monetarist policy before the creation of the European Monetary Union (EMU). All over the world, but especially in the Western world, central bank independence became the dominating monetary policy paradigm. The broad coalition of economists that supported the framework and its perceived success gave legitimacy and credibility to the belief that monetary policy-making was best left to an independent and technocratic institution. This view solidified the illusion of the central bank as a benevolent non-political planner, optimizing society’s welfare in a technocratic and efficient way (McNamara 2006). In line with this consensus, the ECB was granted far-reaching independence. In fact, contrary to its member national central banks, the

ECB's independence is constitutional in character. Only unanimity among all Eurozone member states can change the structure or mandate of the ECB.

Unconventional monetary policy in Europe over the past seven years has had mixed success. Measured against the main goal of any form of crisis-resolution mechanism to keep the short- and long-term costs (in this case, in terms of output loss and unemployment) as low as possible, unconventional monetary policy's success has been limited. On one hand, no government in the EMU went into default, the EMU survived, and the financial system did not collapse, so the main benefit of unconventional monetary policy, its psychological effect, proved effective, as it allowed the ECB to battle the short-term liquidity and confidence crises. By making clear that the central bank will do whatever it takes, the ECB prevented the collapse of financial markets and possibly much more dire consequences for output and unemployment. In addition, some countries, such as Austria and Germany, appear to have left the crisis behind them, as their growth rates have picked up and their unemployment levels are falling. On the other hand, the majority of countries in the EMU are still experiencing sluggish, if any, growth, high unemployment, and rising debt levels. Average unemployment in the EMU rose from 7.6 percent in 2008 to 12.0 percent in 2013, real GDP decreased 0.3 percent per year in the six years since 2008, and the average general government debt in the EMU stands at 92.6 percent of GDP. The countries in the EMU periphery (i.e., Greece, Spain, Portugal, and Italy) have been hit even harder; they are struggling with unemployment rates between 12.2 percent and 27.3 percent, their real GDP has decreased between 1.0 percent and 4.4 percent per year, and their general government debt levels stand at a staggering 93.9 percent to 175.1 percent of GDP (Eurostat 2014).

Unconventional monetary policy and the crisis itself have shaken the pre-crisis consensus on monetary policy, and politicians and the general public increasingly view central banks as omnipotent saviors. Central banks are credited with the ability to deliver everything at the same time: price stability, resolution of sovereign debt problems and problems with commercial balance sheets, reduction of unemployment, prevention of unfavorable exchange rates, and determination of interest yields along the whole yield curve. Any change of monetary policy that would lead to the end of the current ultra-low policy would likely be met with fierce resistance. The absence of deep structural reforms and calls for further quantitative easing and reflationary programs in the EMU show excessive reliance on cheap liquidity and the waning commitment to price stability as the primary goal of an independent central bank.

At the same time, the risks of unconventional monetary policy become more obvious as time passes. On the functional side, unconventional monetary policies delay balance sheet adjustments, lead to moral hazard, and run the risk of making the central bank the market-maker and take up financial intermediation. On the distributional side, the effects include the rising risk of inflation and indirect wealth redistribution. Finally, the ECB risks a possible loss of credibility if its policies are clearly distributional in character or fail to achieve the promised economic growth. The question of central bank independence, once believed to be settled for good, is being raised again with regard to both structure and mandate.

The risks associated with unconventional monetary policy today are likely far greater than the possible benefits. The argument that the ECB continues to be convinced of the effectiveness of these instruments and that the associated risks are tolerable is at least questionable. Based on this assumption, I suggest that the ECB has initiated and continues to engage in its risky, ultra-low monetary policies because it is less independent from national interests than implied by the treaties of the EMU.

In theory, the treaties of the EMU grant the ECB far-reaching de-jure independence, making the ECB de-jure one of the most independent central banks in the world. However, the ECB itself may not be the right object of analysis for the assessment of the de-facto independence of European monetary policy-making. Contrary to widespread belief, the ECB does not have a pre-eminent position over the national central banks that form the European System of Central Banks (ESCB). Instead, most monetary policy decision-making powers in the Eurozone, especially the right “to define and implement the monetary policy of the Community,” lie with the ESCB instead of the ECB (Treaty of the Functioning of the European Union Art. 105, Paragraph 2). In addition, national central banks’ governors dominate the ECB through their overwhelming majority in the Governing Council, the ECB’s decision-making body. Therefore, the ECB’s monetary policy depends directly on the governors’ voting preferences. Instead of being the first among equals, the ECB resembles a supranational subsidiary of the international ESCB, entrusted with performing executive functions for the Eurosystem (Seidel 2003). Following this view, the de-facto independence of those who dominate decision-making at the ECB (the national central banks’ governors) should be the focus of analysis.

To simplify the analysis, I assume that the national central banks’ governors do not participate in the Governing Council as *ad personam* but as representatives of their respective national

central banks and countries. Contrary to “Eurocrats,” national central banks’ governors are part of their respective national political spheres and are likely to place a premium on the economic well-being and the wishes of their home countries. Therefore, I disregard the possibility that governors’ voting preferences depend on Europe-wide aggregates and underpin my assumption regarding the governors’ *ad personam* qualities with references to the Governing Council reform process and the literature on the Federal Reserve’s Board of Directors. I focus on the Governing Council and its rules before the rotating voting system came into effect, as most decisions regarding unconventional monetary policy were made under the old rules.

My guiding hypothesis is that the ECB’s de-jure independence is annulled in practical terms through the exertion of national influence on monetary policy via the Governing Council. I assess the influence of external pressure on the ECB’s Governing Council using the Political Audience Cost Theory, which suggests that institutions depend on the support of political audience groups for their credibility, assertiveness, and (ultimately) independence. In the following, I seek to determine whether the ECB has the necessary support of crucial political audience groups in a majority of Eurozone countries by defining the core political audience groups present in all EMU member states and assessing their preferences regarding a more restrictive or a looser monetary policy. Doing so allows me to estimate the preferences of each central bank’s governor in the Governing Council and, therefore, his or her likely voting behavior. I do not believe that political audience groups try to challenge the de-jure status of their national central banks or that such a direct assault is necessary, as the very possibility of such an alliance would force national central banks into compliance. I argue that the de-facto independence of the national central banks, which—contrary to the ECB’s banks—are often not of a quasi-constitutional character, is weakened in order to prevent the return to normal monetary policy, as normalization would result in further hardship in EMU countries.

Applying the Audience Cost Theory, this dissertation shows that the ECB is indeed susceptible to external audience groups’ monetary policy preferences. The analysis shows that these preferences are a good indicator of actual ECB policy-making between 2007 and 2014, as for the majority of the time period covered, the ECB’s refinancing rate moved in line with the average Eurozone monetary policy preference. Today, the majority of audience groups in all Eurozone countries clearly support ECB policy-making, so a reversal of preference is unlikely, despite the increase in economic well-being and a projected surge in inflation rates.

The support for current ECB policies is almost universal, applying to both the crisis countries of Europe's south and the northern European member countries, where the crisis hit far less heavily. In fact, in no Eurozone country does a majority of audience groups currently demand a more restrictive monetary policy. A plausible explanation for the accord between preferences and the ECB interest rate is that national central bank governors vote along their home countries' interests, thereby ensuring a monetary policy that is to their domestic audience groups' liking. To support my hypothesis, I present case studies on the ECB's most controversial monetary policy decisions.

The dissertation is structured as follows. The next section provides a short overview of conventional monetary policy and central bank independence theory. I argue that the fact that the pre-crisis consensus on the "right" monetary policy was congruent with the mandate of the ECB lent support to the national central banks' de-facto independence, as the support of political and economic elites and the academic consensus on monetary policy gave the ECB sovereignty in interpretation. The overview allows me to consider the possible advantages and disadvantages of unconventional monetary policy and to assess the success of these policies in the EMU. The second section focuses on the resulting breakdown of the pre-crisis consensus and the current dissent about the "right" monetary policy in the literature. The third section addresses decision-making in the ECB's Governing Council and assesses the ECB/ESCB's legal framework, responsibilities, and dilemmas. This section also provides an overview of theories that have been used to explain institutional decision-making and singles out the two core assumptions in the literature: the difference between de-jure and de-facto independence and the central bankers' regional biases. The fourth section presents the Political Audience Cost Theory in order to show that Political Audience Cost is a transmission mechanism that connects audience groups' underlying institutional and political economy-related motives with the preferences of ECB Governing Council members and actual monetary policy-making. The fifth section defines audience groups in the Eurozone and discusses their motivations regarding monetary policy in order to identify their likely monetary policy preferences and draw conclusions on the national central banks' presidents' likely voting behavior. The section focuses on three core political audience groups' stances toward monetary policy: the mass electorate, political actors, and economic actors. The sixth section focuses on the methodology. I assess the mass electorate's stance by focusing on its economic circumstances, its deep-seated beliefs with regard to central bank independence and aversion

to inflation, and the effect of ideology and elite communication. I assess political actors' stance by focusing on external constraints on government budgets, the partisanship of governments and chambers of parliament, and electoral motives. Finally, I assess economic actors' stance on monetary policy by focusing on the composition of the economy. Based on this discussion, I apply in the seventh section the Political Audience Cost Theory to the member states of the Eurozone and determine the extent to which audience groups support current ECB policies. For simplicity's sake, the choice of political audience groups is between the extremes of loose, unchanged, and restrictive monetary policy. As an example of the influence of audience groups, the eighth section presents four case studies on the ECB's most controversial monetary policy decisions: the decision announced on May 3, 2010, to remove collateral requirements for all Greek debt until further notice, the decision announced on May 10, 2010, to purchase private and public debt on secondary markets, the granting of ELA credits to Greek commercial banks during the height of the standoff between creditors and the Greek government in the spring and summer of 2015, the ECB's decisions in January 2015 to embark on quantitative easing, dubbed the Expanded Asset Purchase Program, and the Trichet/Draghi letter to Italian Prime Minister Berlusconi in 2011. Using these case studies, I analyze the extent to which decisions were driven and based on economic necessities and the extent to which external variables, such as pressure from national audience groups, played a role. The final section provides an outlook on future developments. The dissertation concludes with a suggestion for measures that could be taken to stop the capture of monetary policy by national political audience groups via national central banks' governors, to stop the ECB's power decay, and to enforce its de-jure independence.

My dissertation seeks to achieve two goals. First, it fills a gap in the current literature by refining Political Audience Cost as a concept and by making it usable for research on central banks' decision-making. Despite its intriguing logic and with the exception of Lohmann's (1998) study on the pre-EMU Bundesbank, the Political Audience Cost Theory has received almost no attention in the central banking discourse. Applying the theory to the ECB fills this gap and moves the discussion of unconventional monetary policy from the economic sphere into the political science sphere. The dissertation widens the debate by adding an umbrella theory to the discussion that encompasses many of the concepts in the current discourse in the literature. It also contributes to shifting the debate to the macro level by focusing on the fundamental mechanics of monetary policy-making. The second contribution is that of an

empirical assessment of the ECB's independence through a variety of case studies covering some of the ECB's most important decisions in the past six years.

2. Assessing the status quo – overview of central banking theory, unconventional monetary policy, and the EMU

2.1. Central banking theory

2.1.1. Central bank independence

Central bank independence refers to central banks' freedom from direct political and governmental influence or interference in the execution of their policies (Walsh 2008). This somewhat vague concept can be broken down into personnel independence, financial independence, and operational independence (Debelle/Fischer 1994; de Sousa 2001; Eijffinger/De Haan 1996). Personnel independence focuses on the procedures and conditions in the central bank for appointments from regular staff to members of the directorate, for dismissals, and for determining term lengths. Personnel independence covers the final appointment procedures and how much influence political actors can wield in the selection and nomination of candidates (Ullrich 2003). Financial independence prevents direct or indirect pressure to finance state deficits, as only when central banks do not rely on the government for their budgets can they credibly resist (Ullrich 2003). Operational independence takes two forms: goal independence and instrument independence. Instrument independence is the ability to choose the best instrument for accomplishing the set goals, while goal independence is the ability to choose the goals of monetary policy (Ullrich 2003). Goal independence can take various forms, including how many goals there are and how precisely goals and their order are defined, as if neither the goals themselves nor their order are precisely defined, central banks have considerable room to maneuver. The same question of degree holds true for instrument independence (Amttenbrink et al. 1999; Ullrich 2003). As de Haan and Eijffinger point out, central bank independence does not imply the banks' complete disentanglement from politics but a restriction of political influence. Complete independence is often utopic, as the example of nomination and appointment of central bank governors shows; as the governors are appointed by politicians, total personnel independence is not possible (Eijffinger/De Haan 1996).

Central banks around the world are equipped with various degrees of independence along these dimensions. However, the resulting legal framework, the de-jure independence, does not always correspond with actual practice, the de-facto independence (Koshie 2013; Ullrich 2003).

2.1.2. The ECB as one of the most independent central banks

The ECB is de-jure one of the most independent central banks along all three dimensions. Unlike almost any other central bank—another example is the central bank of Bosnia and Herzegovina—the ECB’s de-jure independence is of a constitutional character, where unanimity among all member states is necessary to change any part of its legal framework (Crowe /Meade 2007). The Treaty on the Functioning of the European Union and the protocol on the Statute of the European System of Central Banks and of the European Central Bank lay out the legal basis for the ECB’s operations. The ECB’s personnel independence is secured through a president and a directorate with office terms that are longer than those of legislators in the Eurozone, and dismissals occur only in rare circumstances of personal misconduct (Treaty Art. 283, Paragraph 2; Protocol Art. 11.2, 11.4). The majority of the ECB’s council members are governors of the national central banks of the EMU member states. Like the ECB, national central bank governors have longer office terms than their legislators (minimum of five years) and are dismissed only rarely (Treaty Art. 131; Protocol Art. 14.1, 14.2). However, unlike the ECB, national central bank governors are chosen with full discretion by their respective national governments, have shorter average office terms than the ECB directorate, and can be re-elected. The European Council, on the other hand, appoints the members of the directorate, whose financial independence is guaranteed by the separation of its budget from the common budget of the European Union, by the ability to keep 20 percent of its annual net income for its general reserve fund, and the ability to offset losses against the reserve fund and through its net income (Treaty Art. 282, Paragraph 3; Protocol Art. 33). Finally, the ECB’s general operational independence is increased by the ban on interference from EU institutions, national governments, and other bodies (Treaty Art. 282, Paragraph 4; Protocol Art. 7). While the ECB’s Governing Council acts by simple majority with a quorum of two-thirds of the members, the President of the ECB can circumvent the quorum rule by convening an extraordinary meeting at which no quorum is necessary (Protocol Art. 10.2). With regard to goal independence, the ECB is limited through the prioritization of price stability, but it can pursue other goals in support of the general economic policies in the Union as long as doing so does not interfere with price stability, establishing a clear order of goals (Treaty Art. 127, Paragraph 1; Protocol Art. 2). The ECB’s instrument independence is limited by the ban on providing credit to or buying debt from national government agencies and EU institutions, and its role as lender of last resort is not specifically sanctioned (Treaty Art. 127, Paragraph 1&5, Art. 123; Protocol Art. 2, 21.1).

Studies have constructed various indicators to measure central bank independence, and the vast majority of these studies focus on the de-jure independence of central banks. By calculating some of the most common central bank indices (Alesina et al. 1989; Grilli et al. 1991; Cukierman et al. 1992; Eijffinger/Schaling 1993), de Haan and Eijffinger (1996) show that the ECB is highly independent. Across all indices, it is the more independent than any of the other G-7 central banks. Crowe and Meade (2007) find in applying Cukierman et al.'s (1992) Central Bank Independence (CBI) index to their sample of ninety-six industrial and developing countries that the ECB was the second most independent central bank among advanced countries, after Sweden's Riksbank.

2.1.3. The pre-crisis consensus: central bank independence and price stability

Over the past decades, an increasing number of countries have transferred monetary policy-making rights to independent central banks. Especially since the late 1990s, major changes in central bank law have taken place; more than half of the forty-seven countries analyzed by the Bank for International Settlements have changed their central bank laws since 1998 (Cruz/Ortiz 2009). Before the late 1980s most central banks basically represented a division of their countries' treasuries. Their objectives were wide-ranging, including high levels of growth, low unemployment, and financing government deficit, so while price stability was often an objective, it was just one of many. Although some central banks had a certain level of legal independence, they usually had less independence than the law indicated. With only a few exceptions, central banks had no instrument independence (Cukierman 2008). By calculating the de-jure CBI indices as of the end of 2003 for 163 central banks in 181 countries, Arnone et al. (2007) show that all country groups (i.e., advanced economies, emerging markets, developing countries) increased their levels of CBI since the late 1980s but also that they all exhibited higher levels of CBI at the end of 2003 than that reached by advanced economies in the late 1980s. Almost all central banks in the sample had been mandated with price stability by 2003, often with priority over other goals. In addition, most central banks had provisions in place to limit the financing of government deficits or at least the quantity of such credits and to make them temporary (Moser-Boehm 2006). Finally, most of the central banks' governments had granted them autonomy in setting the policy rate (Arnone et al. 2007). In a similar study, also building on the 2003 IMF database of central bank laws, Crowe and Meade (2007) show that the average independence score, 1.0

indicating complete independence, doubled from 0.3 in the 1980s to 0.6 in 2003 across their sample.

Scholars have tried to explain the puzzling trend of politicians' voluntarily giving up control over monetary policy, even though they could influence election-deciding parameters like unemployment and output levels at least in the short term (Landström 2013). After all, economic voting theory suggests that incumbents who preside over economic downturns are more likely to lose elections than are those that do not, and studies show that the lack of control over monetary or fiscal policy leaves long-serving leaders especially endangered (Clark et al. 2013).

2.1.3.1. Theoretical arguments for delegation

The literature provides three core theoretical arguments for the delegation of monetary policy, the most prominent of which refers to the time-inconsistency problem, where today's strategy might be suboptimal tomorrow. Policymakers are systematically tempted to use the short-term trade-off between inflation and output to stimulate the economy even though that this behavior leads to high inflation rates and no real output gains in the long run. Private actors raise their inflation expectations as they incorporate politicians' likely opportunistic behavior (de Sousa 2001), so the public and government are drawn into a form of prisoners' dilemma (Eijffinger/De Haan 1996). The promise of policymakers to pursue low inflation is not credible as reneging on the goal of price stability promises political gains. To solve the time-inconsistency problem policymaker's behavior must be limited (Rogoff 1985; Barro/Gordon 1983; de Sousa 2001).

The second argument for delegation refers to the need to safeguard low inflation despite partisan cycles (which describe differences in policy choices and outcomes that depend on partisan governments acting in their constituencies' interest (Hibbs 1977)) and election cycles (Cukierman 1994; Eijffinger/De Haan 1996; Ullrich 2003). The public choice argument states that central banks are under pressure to behave in accordance with their governments' preferences. Monetary tightening strains government budgets by reducing tax income through a slowed economy, lower seingorage receipts, and a short-run increase in the interest burden on government debt. Therefore, it is in the government's interest to ensure cheap money (Eijffinger/De Haan 1996). Partisan and election cycles may explain the kind of monetary policy governments prefer. While left-leaning governments seek low unemployment at the

expense of higher inflation, right-leaning governments prefer the reverse (Hibbs 1977). Election cycles describe monetary policy changes before and after elections. Nordhaus (1975) and Lindbeck (1976) propose that opportunistic governments use fiscal and monetary policy before elections to stimulate the economy and reduce unemployment, resulting in increased electoral support. After the election victory, they contract these policies to cushion the inflationary consequences of their pre-election policies (Nordhaus 1975; Lindbeck 1976).

The third argument deals with the dominance of fiscal over monetary policy (Sargent/Wallace 1981). If fiscal policy dominates, the fiscal authority can set its budget deficit at will, before the monetary authority can set its policies, so monetary policy will have to accommodate fiscal policy, making money supply endogenous. If the public is not willing or able to acquire additional government debt, monetary authorities will be forced to finance deficits by printing money. On the other hand, if monetary policy dominates and the monetary authority can set its policies independently, fiscal authorities will have to satisfy long-run government budget constraints and adhere to the monetary authorities' wishes (Sargent /Wallace 1981; Eijffinger/De Haan 1996).

Other arguments have been made in favor of delegating monetary policy. Among others are arguments regarding signaling creditworthiness to foreign investors, especially when government debt is high (Maxfield 1997), and arguments regarding the strength of the financial sector's and the public's opposition to inflation (Forder 2005; Posen 1995; Hayo 1998).

Summarizing the theoretical arguments for delegation, the core problems that drive all delegation arguments regard governments' inflation bias and their lack of credibility. With their inherent inflation bias, governments cannot credibly commit to a low inflation target. While there is consensus that, in the long-run, policymakers can achieve price stability only through monetary policy, central bank independence is by no means the only way to ensure low levels of inflation and inflation variability (Debelle/Fischer 1994; Landström 2013). Other routes to price stability include a strict low-inflation rule, delegating monetary policy to an overly conservative central banker, and fixing monetary policy contractually (Rogoff 1985; Barro/Gordon 1983; Keefer/Stasavage 2003; Farvaque 2002; Walsh 1995; Persson/Tabellini 1993; Svensson 1997). All of these alternatives have serious shortcomings (de Sousa 2001;

Eijffinger/De Haan 1996; Barro/Gordon 1983; Hayo/Hefeker 2002; McCallum 1995; Jensen 1997; Cukierman 1992).

2.1.3.2. Empirical arguments for delegation

Tests of the theoretical concepts mentioned above have been inconclusive. While empirical studies are generally supportive of central bank independence, their results have not been compelling.

The question concerning whether central bank independence is negatively correlated with inflation has drawn the attention of numerous scholars, whose results depend on the group of countries (i.e., developed countries, developing countries, and emerging countries) studied. Most studies compare an index of the central bank's de-jure independence with inflation rates. The design of the index, the question concerning which aspects of independence to include, and their weights and normalization procedures all affect outcomes and result in indices that are largely uncorrelated (Pollard 1993; Klomp/De Haan 2010; Lybek/Morris 2004; Mangano 1998). The consensus is that there is a negative correlation between average inflation and the degree of central bank independence in developed countries (Cukierman 1992; Alesina/Summers 1993; Grilli et al. 1991; Walsh 2008; Klomp/De Haan 2010; Bade/Parkin 1984; Landström 2013), but there is no such relationship in developing countries (Cukierman et al. 1993; Landström 2013). One reason for this difference may be that the authorities enforce legal independence only when the shift to a market economy has strengthened sufficiently (Cukierman 2008). The causal relationship between CBI and low and stable inflation has been disputed in terms of, for example, whether good economic policies lead to price stability and central bank independence or the other way around (Posen 1995; Daunfeldt/de Luna 2007; Walsh 2008; Cukierman et al. 1992; Hielscher/Markwardt 2012; Lybek/Morris 2004).

The relationship between CBI and the inflation-output variability trade-off is also not clear-cut, mostly because of the comparatively low number of empirical studies. The argument that greater central bank independence decreases inflation variability rests on the assumption that stable money growth and the absence of electoral and partisan cycles decrease inflation variability (Alesina 1988; Eijffinger/De Haan 1996). With regard to central bank independence and output variability, the argument is that low inflation caused by restrictive monetary policy leads to high real interest rates, which hurt economic growth

(Alesina/Summers 1993). Predictability induced by central bank independence also enhances economic growth through economic stability, reduces the risk premium, and leads to a more constant monetary policy (Alesina/Summers 1993). In addition, high inflation may distort the pricing mechanism and impose significant costs on society (Fischer 1993). While Chowdhury (1991) shows a significant positive relationship between inflation and inflation variability, other scholars find little or no relationship between central bank independence and real economic variables (Walsh 2008; Pollard 1993; Alesina/Summers 1993; Parkin 2013; Grilli et al. 1991; Cukierman 2008). Cukierman et al. (1993) find that, while there is no association between legal independence and per capita income growth in developing countries, the association between growth and actual independence (political vulnerability of central banks and governor turnover) in these countries has a positive impact on growth. After examining one of the most comprehensive data sets, Landström (2013) finds no such trade-off, even after controlling for the level of central bank independence, and finds instead a strong positive correlation between inflation and output variability. Countries that stabilized output variability and implemented central bank independence reforms stabilized inflation variability more than countries that did not implement such reforms (Landström 2013).

2.1.3.3. Historical arguments for delegation

The consensus that monetary policy is best left to independent central banks was strengthened by two additional developments: the perceived failure of Keynesianism as an economic concept in the 1970s and Germany's success with the Bundesbank's pragmatist version of monetarist policy before the creation of the EMU. While such was not the case in the 1960s and 1970s, it became the accepted view that inflation and its uncertainties reduce growth. The policy shift was not driven purely by ideological commitment to liberal orthodox principles but was the political response of leaders who were facing deteriorating national economies and increasing international competition (Cukierman 2008; Sandholtz 1993). Sluggish growth, the low economic performance of high-inflation countries, the gradual tearing down of controls on capital flows, and the resulting broadening of international financial markets and governments' declining ability to deliver the economic results they promised in the 1970s all sparked a quest for price stability (Bernhard/Leblang 2002; Cukierman 2008; Sandholtz 1993). The failure of Keynesianism in the wake of stagflation after the first oil crisis in 1973 and the widespread impression of crisis gave greater salience to monetarist theory. A neoliberal consensus made the pursuit of low inflation more important than growth and

employment, so it replaced the former Keynesian beliefs of the political elites. Monetarist theory prioritized price stability over all goals, as expansionary monetary policies used to stimulate demand and employment would produce only inflation and inflationary expectations (Scharpf 2011). It provided an alternative policy model to Keynesianism, appealing to policy-makers by addressing both the changed economic conditions and their need for a reform-legitimizing framework (McNamara 2006). The German success with a pragmatic version of monetarist theory provided a strong and compelling example of the theory's benefits. While most of Europe was struggling with stagflation, Germany stood out as an example of successfully steering the economy. Because of the Bundesbank's restrictive anti-inflationary policies, unemployment and inflation rates were low (McNamara 2006; Cukierman 2008). All over the world, but especially in the Western world, central bank independence became the dominating monetary policy paradigm. The broad coalition of economists who supported the framework and its perceived success gave legitimacy and credibility to the belief that monetary policy-making was best left to an independent, technocratic institution. It solidified the illusion of the central bank as a benevolent, non-political planner that optimized society's welfare in a technocratic and efficient way (McNamara 2006). The inflation-bias story triggered by Kydland, Prescott, Barro and Gordon, and the comparatively simple theory of the prisoner's dilemma in monetary policy-making helped to cement the view that using monetary policy to raise output beyond its equilibrium is not effective and leads to inflation (Cukierman 2008).

However, this consensus was largely elite-based, and the ease with which the ECB's independence was agreed upon did not necessarily reflect the depth of Europe's commitment to the idea (Forder 2005). The public's and political elites' support for the EMU increased with the single-market process in the 1980s, but public opinion was not the driving force. Preparation for the EMU was already long underway, and governments tended to run faster than their publics were willing to go when polls began to focus on the public's attitude toward a single currency (Sandholtz 1993). Price stability fit the general political and economic scene and was supported by the contingencies of the time, such as the struggle to control inflation (Forder 2005). In the 1970s and 1980s most of Germany's EC partner countries were wedded to inflationary policies, following cycles of inflation and devaluation. Joining the EMU meant a radical shift, as the government had to abandon the idea that inflation could be used to achieve economic goals like employment and growth (Sandholtz 1993; McNamara 2006).

The accession criteria that had been defined for the common currency were met by some candidates with brutal budget consolidations and social pacts that were difficult to sustain over the long term (Scharpf 2011). After the creation of the central bank, the political and historical factors (like the need to anchor a re-unified Germany in the West) that drove the agreement began to dissolve quickly as the goal of price stability was achieved. Popular support had no historical roots in most EMU member states, so as some scholars predict, the support is likely to fall apart in times of economic hardship (Forder 2005; Sandholtz 1993).

2.1.3.4. The pre-crisis consensus on monetary policy

Central bank independence has emerged as the consensus theory of monetary policy in the past two decades. The consensus on monetary policy can be summarized in four central hypotheses: macroeconomic stability can be achieved through price stability as long as the central bank manages to keep inflation under control in the short- to medium-term and there are no exogenous shocks; monetary policy-making could and should be separated from regulation and supervision, which focuses on the health of individual financial institutions, since as long as the individual institutions are healthy, the stability of the whole system is safe; the short-term interest rate is the only policy tool necessary, as control over the short-term interest rate in combination with the market's expectation about the future is sufficient to capture the impact of monetary policy on the economy; and as long as every regulatory agency in every country ensures the soundness of its respective financial institutions, the whole financial system will be in order, so all central banks have to do is to keep inflation at home in check (Borio 2011).

The consensus was driven on the theoretical side by the fact that none of the proposed alternatives seemed to be able to solve the commitment problem that lies at the heart of monetary policy-making. Resting on the core assumption that price stability is fundamental, as high inflation or deflation has enormous economic, political, and social costs, actors acknowledged the overall economic benefits of central bank independence to be expected by making price stability the dominant goal and by limiting financing state deficits through the printing press (McCallum 1997; Lybek/Morris 2004; Crowe/Meade 2007; de Sousa 2001). To satisfy modern democratic societies' demands for transparency and accountability, central banks should be instrument-independent but goal-dependent, with price stability the overriding goal (Mishkin 2000; Koshie 2013; Martin 2013). Although supportive empirical

studies have not been compelling, central bank independence has generally prevailed (Lybek/Morris 2004).

2.2. Monetary policy during the global financial crisis

During the global financial crisis central banks around the world stepped up to prevent the collapse of the financial system, which would have had even more dire consequences for output and unemployment. As interest rates hit the zero lower bound, central banks engaged in unprecedented levels of unconventional monetary policy (Issing 2013; Fahr et al. 2010). These policies were justified by the impairment of the traditional transmission mechanism of interest rate decisions, which impairment was due to the looming possibility of government default and the dominance of credit risk in business thinking. However, seven years after the start of the crisis and long after any immediate liquidity risks were overcome, there are still only a few signs that monetary policy has normalized (Hannoun 2012), a notable exception being the Fed's tampering with asset purchases. Instead, ultra-easy monetary policy continues to be employed on the grounds that aggregate demand needs to be restored and because high debt levels make policy-makers reluctant to employ fiscal policy (White 2012; Hannoun 2012; Blinder 2012). As White (2012) observes, monetary policy has become the only game in town.

2.2.1. Best-practice crisis-resolution principles and their application during the crisis

The main goal of any form of crisis-resolution mechanism is to minimize the short- and long-term costs in terms of output loss and unemployment. The example of the financial crisis in the Nordics in the early 1990s provides three widely acknowledged principles with which to achieve this goal (Borio et al. 2010). The first principle is the need to recognize the problem early and intervene, as the longer authorities wait, the greater the cost will be. Unless problems are identified and addressed, actors have no incentive to correct misallocations of resources. As the former Citigroup chief executive Chuck Prince put it, "When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance. We're still dancing" (Nakamoto/Wighton 2007). With regard to the recent crisis, policy-makers identified liquidity risks in the interbank market rapidly and acted swiftly to provide emergency funding (Borio et al. 2010).

The second principle is the need for comprehensive and in-depth intervention to restore confidence in the financial markets, enable them to act efficient and effective again, and to

prevent subsequent policy correction resulting from piecemeal policies. While governments and central banks employed liquidity operations and guarantees rapidly, the restructuring of balance sheets via write-downs and outsourcing the management of bad assets have not proceeded as swiftly, nor has much attention been paid to reducing excess capacity in such sectors as the banking sector (Borio et al. 2010).

The third principle is the need to balance systemic costs with considerations of moral hazard. While overly abrupt and imprecise exercise of market discipline can cripple financial markets and the real economy, unsustainable investments must be purged. Those who got themselves into difficulties must bear some consequences to prevent future reckless actions. During the crisis, rescued companies' management saw few dismissals, ownership takeovers by the government, or restructuring (Borio et al. 2010).

Overall, policy-makers' intervention has so far been incomplete. Governments have put more weight on supporting lending and aggregate demand in the short run than on boosting adjustment and reducing overhang capacity in the financial sector. Consistent crisis management has been hindered by differing central banking cultures and monetary policy preferences in the EMU member countries (Schwäbe 2013). The high level of financial globalization, the complexity of the products involved, and general aversion to government intervention in Anglo-Saxon countries have also made a thorough intervention more difficult (Borio et al. 2010; White 2012; Martin/Milas 2012). It is this incomplete nature of crisis resolution that makes prolonged use of unconventional monetary policy both necessary and dangerous.

2.2.2. Benefits of unconventional monetary policy

The single biggest benefit of unconventional monetary policy is its psychological effect. By making clear that they will do whatever it takes, central banks prevented the looming collapse of the financial system. While their readiness to honor this commitment was never tested, market participants believed that central banks would serve as a backstop to the collapse of the financial system.

Unconventional monetary measures can be grouped into four main types of policies. First, central banks used liquidity facilities to provide liquidity through short-term lending and to set currency swap lines with other central banks, especially the Fed. The main benefit of liquidity facilities is their ability to prevent a breakdown of the financial markets. In times of crisis, the

inter-banking market can be impaired, as banks no longer trust each other, so they reduce their relative lending exposure. Second, credit facilities were used to encourage lending, as credit facilities can help to avert a financial market crisis's spreading to the real economy. The additional available credit allows banks to continue their lending to the real economy. Third, large-scale asset purchases were used once interest rates hit the zero lower bound. Central banks started to reduce rates along the whole yield curve by expanding their balance sheets, changing their structures, or doing both. Large-scale purchases of assets are used if the normal monetary transmission mechanisms break down. Normally, the monetary transmission mechanism ensures that changes in the short-term interest rate affect the whole yield curve, but if this mechanism is no longer working, central banks use large-scale asset purchases to ensure the effect of their interest rate decisions (Hannoun 2012; McKinsey Global Institute 2013). Finally, central banks used forward guidance to set expectations about the future development of monetary policy (Hannoun 2012) to convince market participants that the interest rate reduction would not be temporary in the short run (McKinsey Global Institute 2013).

2.2.3. Risks of unconventional monetary policy

Unconventional monetary policy involves a number of risks and unintended effects that can be broadly grouped into functional and distributional effects. While function effects are the effects unconventional policies have on the functioning of the economy, distributional effects are the monetary effects on various groups in the economy.

2.2.3.1. Functional side effects

I begin with an overview of three primary functional side effects of unconventional monetary policy. First, unconventional monetary policy measures delay balance sheet adjustments in the economy (McKinsey Global Institute 2013; Borio et al. 2010; White 2012; Hannoun 2012). Liquidity provisions by the central bank cannot solve underlying solvency problems and may instead prevent the purge of poor investments by propping up non-performing loans (Hannoun 2012; Rawdanowicz et al. 2013). Vertical and horizontal misallocation of resources continues, leading to a new series of bubbles (e.g., real estate in western Europe) and the potential for lower growth rates (Borio 2011). An asset price boom is fueled either directly by asset purchases through the central bank or indirectly through portfolio rebalancing (Rawdanowicz et al. 2013; White 2012). Toughened regulatory standards for financial institutions that are still coping with balance sheet risks, de-leveraging, and a search for

safety, reduce spreads and prevent long-term lending, deepening the downturn. The sector needs low policy rates in order to survive, but they are also increasingly less effective in shoring up the financial sector. Second, unconventional monetary policy may encourage a new round of risk-taking and leveraging in the financial system (McKinsey Global Institute 2013; Hannoun 2012; Borio et al. 2010; White 2012), as the impression that central banks stand ready to do whatever it takes may increase moral hazard (Hannoun 2012). The easy monetary conditions that led to imprudent lending, increasing collateralization, and a rate of credit growth that was far beyond the growth rates of nominal income is likely to have the same effect again (Borio 2011). Third, financial markets lose their ability to discover prices and be market makers; instead, the central bank takes over financial intermediation, and depending on the size and scope of its interventions, becomes the most important player in asset price formation (Hannoun 2012; White 2012; Rawdanowicz et al. 2013; PIMCO 2013).

2.2.3.2. Distributional side effects

The first and probably most prominent distributional effect is the likelihood of rising inflation. Inflation has a profound influence on almost all economic actors, including households, financial and non-financial firms, and nation states. While ultra-low monetary policy almost inevitably leads to rising inflation in the long run, the dangers in the short term are limited, as inflation expectations are still anchored at low levels and the combination of excess global production capacities and depressed demand make rising inflation unlikely (Rawdanowicz et al. 2013; White 2012).

In addition to inflation, unconventional monetary policy also has more direct distributional side effects. While conventional monetary policy influences wealth distribution through the (overnight) short-term interest rate, which influence affects banks' funding costs and interest income directly and asset prices indirectly (Brunnermeier/Sannikov 2012), unconventional monetary policy has a similar but stronger effect, as it uses measures beyond the short-term interest rate to affect the whole yield curve (McKinsey Global Institute 2013).

2.2.4. Unconventional monetary policy in the Eurozone

During the global financial crisis, the ECB engaged in many unconventional monetary policies, many of which are similar to those the Bank of Japan undertook (with limited success) to stimulate demand during the 1990s (White 2012). With regard to liquidity facilities, the ECB expanded its refinancing operations for banks and moved from an auction

system to a system of full allocation at fixed rates, allowing banks to borrow any amount of funds they wanted at a fixed interest rate if they posted adequate collateral. The ECB's increased credit support for banks, designed to encourage lending, changed its Long-Term Financing Operations Program from three months to three years, increased the number of assets accepted as collateral, and increased the amount available through these operations. To affect the interest rate yield along the whole yield curve, the ECB purchased sovereign debt on the secondary market through its Securities Markets Program and announced its Outright Monetary Transaction Program, which would have allowed it to buy short-term government debt directly from banks. While this program was never executed, its announcement alone was sufficient to drive government yields down. Finally, while the ECB used its forward guidance to signal the continuation of ultra-low rates, it did not name conditions like unemployment thresholds like the Fed did (McKinsey Global Institute 2013; Borio/Disyatat 2009; PIMCO 2013; Rawdanowicz et al. 2013).

Overall, unconventional monetary policy in the European Union has been at least partially successful, as the European banking system did not collapse, and no country had to leave the Eurozone (Scharpf 2014). It is my view that these successes can be attributed to unconventional monetary policy and the ECB's unwavering stance. After ECB President Draghi's "whatever it takes" speech at the London Global Investment Conference on July 26, 2012, sovereign interest rates tumbled, and the spread between European countries narrowed again (Draghi 2012; Martin/Milas 2012) as the two-year borrowing costs of the largest crisis-ridden countries, Spain and Italy, reacted within minutes of the speech dropping by 74 basis points to 5.68 percent and by 89 basis points to 4.06 percent, respectively. At the same time, stock markets in both countries gained roughly 5.6 percent each (Wilson et al. 2012). This result underscores the beneficial psychological effect of unconventional monetary policy. However, apart from these short-term effects, the track record of unconventional monetary policy in the Eurozone has been mixed. According to Eurostat data (2014) some countries, such as Austria and Germany, seem to have left the crisis behind them, as their growth rates have picked up and their unemployment levels are falling. However, most countries in the EMU are still experiencing sluggish (if any) growth, high unemployment, and rising debt levels (Scharpf 2014). The average unemployment rate in the EMU rose from 7.6 percent in 2008 to 12.0 percent in 2013, real GDP decreased by 0.3 percent per year over the past six years, and the average general government debt in the EMU stands at 92.6 percent of GDP.

The countries in the EMU periphery (i.e., Greece, Spain, Portugal, and Italy) have been hit even harder. They are struggling with unemployment rates of 12.2–27.3 percent, their real GDP has decreased 1.0–4.4 percent per year, and their general government debt levels stand at 93.9–175.1 percent of GDP (Eurostat 2014). The result of unconventional monetary policy, often in combination with austerity measures, differs widely depending on the viewpoint taken: the perspectives of the creditor states and the Eurozone would just them successful, while the debtor states' perspective—or at least the debtor states' citizens' perspective—would just them as flawed because of their high social cost (Scharpf 2014).

When analyzing the policies' success from the viewpoint of the Eurozone aggregate it shows that some of the above mentioned functional and distributional side effects are being visible. Turning to the functional effects of unconventional monetary policy, balance sheets have adjusted in the Eurozone slowly, as banks, especially in the crisis countries, are still burdened with bad assets. Low interest rates have not transmitted into the real economy, as banks are still coping with balance sheet risks, and the private sector remains hesitant because of the incomplete and uncertain nature of the crisis resolution (Borio et al. 2010; White 2012; Martin/Milas 2012; Rawdanowicz et al. 2013). In addition, financial institutions are still highly dependent on cheap liquidity. The fact that these institutions, especially in the southern European countries, have continued overloading their balance sheets with high-yield government debt aggravates the problem (McKinsey Global Institute 2013). Therefore, ultra-low policy rates and unconventional measures have become essential for the stability of the financial system. New asset price bubbles are also emerging in some countries. For example, the Bundesbank in Germany issued a warning in November 2012 that real estate prices were rising fast and that, while the bubble had yet to develop, all the factors necessary were in place (Deutsche Bundesbank 2012). Finally, the high volatility of stock markets, reacting to every sign of action by the central banks, underscores the central banks' having become one of the most important players in the price formation of a large array of assets.

As for the three primary distributional side effects of unconventional monetary policy, first, it is unlikely that inflation will become an issue any time soon, although the danger of deflation in Europe looms large. Inflation rates in the Eurozone remained below 1 percent in 2014, which is far below the ECB's goal of around 2 percent. Inflation expectations are firmly anchored at low levels, but doubts about the return of central banks' long-term rule-based decision-making might lead to abrupt upward shifts (Issing 2013; PIMCO 2013). Second,

while the jury is still out on the final re-distributive effects of unconventional monetary policy, overall, government and non-financial institutions have benefited significantly from unconventional monetary policy. Both groups have large liabilities and only limited assets and have benefited from the decline in debt service payments. The picture for financial institutions is mixed, but it is clearly negative for the whole Eurozone. The reduction of net interest margins has squeezed banks' profitability in their core business of lending. Third, long-term investors like insurance co-operations and households have lost out, as they tend to hold far more assets than liabilities and have suffered from reduced interest income as a result (McKinsey Global Institute 2013).

Including in the calculation the effects of unconventional monetary policy on asset prices changes the picture, as measured by McKinsey Global Institute (2013) and PIMCO (2013), even though the impact on asset prices remains inconclusive. Strong positive effects on bond prices have occurred, but stock prices are unlikely to be influenced in the long run (McKinsey Global Institute 2013; PIMCO 2013). Companies have not increased investments markedly, nor has significant portfolio rebalancing taken place. Instead, lower borrowing costs have led to an increase in short-term consumption spending (PIMCO 2013). Most market participants see the increase in corporate profits as temporary and the stock market rally as a correction of the overreaction after the Lehman crisis (McKinsey Global Institute 2013). Unconventional monetary policies have not increased housing prices directly, but they may have prevented a steeper decline and affected the accelerated recovery. While housing prices have risen in the Eurozone, their levels, measured by income-to-price ratios, remain far below previous highs. Therefore, rising prices in most areas are not yet excessive, and their increase should be seen as a recovery from recession (Rawdanowicz et al. 2013). Whether such increases in wealth increase consumption is debatable, while the lost interest income is tangible (McKinsey Global Institute 2013). Even the question concerning whether higher asset prices equal greater wealth remains unclear, as wealth implies increased future income (White 2012). Regardless, it is difficult to imagine how higher asset prices would transfer into higher spending right now, as few banks are willing to offer consumer credit based on leveraging real estate. In addition, the impact of increased wealth on spending might differ during times of recession. Especially in southern European countries, real estate and equity are still worth less than they were in 2007 (McKinsey Global Institute 2013).

To sum up, unconventional monetary policy is and will remain a hotly debated topic in both academic circles and the public discourse. While the jury is still out on the sum of unconventional monetary policy's effect, one problem is clear: it is difficult to end unconventional monetary policy. In the Eurozone, the ECB is confronted with unemployment at record highs and sluggish economic growth, especially in the southern member states. At the same time governments' incentives to liberalize labor markets and improve investment conditions are low, and fiscal discipline is weakening (Issing 2013). Expectations about the ability of monetary policy have reduced governments' need to reduce their deficit spending and have again leveled risk premiums across countries. Today, the risk premium on Spanish bonds is again almost as low as the risk premium on US bonds. Instead of reducing their spending to long-term sustainable levels, governments are becoming increasingly dependent on cheap central bank liquidity. Having shown politicians their ability to expand the money and credit supply, central bankers will find it difficult to avoid calls for such measures in the future (Meltzer 2013). Almost all countries in the Eurozone are breaching the rules of the fiscal pact, their deficits exceed 3 percent, and their debt to GDP ratios exceeds 60 percent. The strongly negative market reaction at first indication of tempering by the Fed gave a preview of what is to come.

Political pressures to continue unconventional monetary policy will mount, as an end to the era of ultra-low interest rates will have several effects (Hannoun 2012; Borio 2011; Borio 2014; Taylor 2012; White 2012). First, it would increase risk in the financial markets, as the withdrawal of liquidity will increase tail risk, leading to an increase in price volatility; the risk increases as the asset holdings of a central bank increase (Hannoun 2012; McKinsey Global Institute 2013; Rawdanowicz et al. 2013; Cukierman 2011). Prolonging of unconventional monetary policy out of fear of market instability only amplifies the problem as assets are added to the central bank's balance sheet. Second, investors in bond markets will face serious losses, hitting banks in southern Europe with high levels of government securities and insurance companies with large fixed-income assets especially hard. Banks in northern Europe would benefit from a widening of net interest margins, but this benefit is not likely to make up for the problems from increasing financial instability. Third, government debt service costs will explode, although the effect will hit those countries with already unsustainably high debt levels the hardest, increasing the temptation to reduce the burden via inflation (Cukierman 2011; Borio/Disyatat 2009; Issing 2013; Hannoun 2012; McKinsey

Global Institute 2013). This conflict of interest between governments and central banks will come at a time when central banks need to coordinate their policies with the treasuries to reduce the size of their balance sheets (Turner 2014). Fourth, household debt service costs will rise (McKinsey Global Institute 2013). While household debt have fallen since the height of the crisis, it is still higher as a percentage of GDP and in nominal terms than it was before 2000. This increased cost will be countered by an increase in interest income, but since wealth is not evenly distributed across societies, only a small percentage of households will be better off. Fifth, non-financial co-operations will have to improve their capital efficiency and de-leverage if liquidity is withdrawn from the market and interest rates rise again. Sixth, central banks will bear certain losses once interest rates return to normal, and those with the least assets to sell on the market will see the greatest losses because of the fear of asset price volatility (Rawdanowicz et al. 2013). Finally, capital flows to emerging markets will dry up and capital will flow instead from emerging markets to developed countries, increasing the chances of payment problems and lowering growth in emerging markets. This effect will then hit export-dominated economies in the Eurozone that relied on emerging markets as export destinations during the crisis (McKinsey Global Institute 2013; Caruana 2013).

Considering the risks and benefits of unconventional monetary policy, especially with respect to the likely opposition to ending it, it is surprising that the ECB continues to engage in such policies. While its use during the height of the crisis is understandable, its continued use raises questions. Relying solely on monetary policy, especially unconventional monetary policy, risks overburdening central banks and has created an “expectations gap” between what central banks are expected to deliver and what they can deliver (Borio 2014; Caruana 2013; Orphanides 2013). Despite ultra-low interest rates and massive use of the central banks’ balance sheets, growth has been disappointing in many countries. Public frustration about low growth and high unemployment has been growing and has been pinned squarely on the central banks (Farvaque et al. 2011).

2.3. Post-crisis dissent - developments in central bank theorizing since the global financial crisis

At first glance, central banks emerge as the clear winners from the turmoil of the global financial crisis. They are hailed as saviors, their de-facto mandates have been broadened, and few doubt their central role in monetary and financial stability policy (Borio 2011). The pre-

crisis consensus on central banking has been shaken, as central banks reached far beyond classic monetary policy during the global financial crisis. However, central banks are now faced with a number of challenges. On the economic side, they have to operate in a hostile economic environment, despite years of ultra-low interest rates. On the theoretical side, they are heading into unknown territory; they know that their macroeconomic models failed to flag systemic risk, inter-linkages, and pro-cyclicality, but there is no consensus on how to adapt them so they work more effectively (Borio 2011; Caruana 2013). On the institutional side, their independence is likely to come under pressure because of ballooning public debt, their use of unconventional monetary policy, and questions surrounding both performance and legitimacy. The crisis has exposed a rift between monetary policy theory and practice, and as a result, a worldwide discussion has emerged among all key stakeholders of monetary policy about the need for a new monetary policy regime and an accompanying institutional setup (Issing 2013).

2.3.1. What monetary policy after the crisis?

Over the past decades, most economists have come to agree on an independent central bank as the preferred institutional structure and inflation-targeting as the preferred policy with which to keep prices stable. The economic theory at the heart of this convergence of belief is the quantity theory of money that was first put forward by Irving Fisher (Fisher 1922). While Fisher defines a linear relationship between the quantity of money and inflation, modern monetarism builds on Milton Friedman's (1956, 1998) revised neo-quantity of money theory, which adapts the quantity of money theory by placing greater weight on inflation expectations and the increasing role of financial markets. Monetarism, which has become the mainstream economic theory since the perceived failure of Keynesianism, replaced quantity of money targeting with inflation-targeting. However, the convergence of belief that resulted in the primacy of monetarism as economic theory during the "Great Moderation" fell apart during the recent financial crisis. In the aftermath of the crisis, financial stability has rivaled the singularity of price stability as a goal of monetary policy, and other mechanisms with which to set the optimal interest rate, such as the Taylor rule, have rivaled inflation-targeting.

Today, most economists and central bankers agree that a broader understanding of central banking is necessary and call into question some core beliefs about monetarism (Carré et al. 2013). Among the items of consensus is some agreement concerning the inability of low and stable inflation to guarantee financial and macroeconomic stability (Borio 2011; Caruana

2013; Brunnermeier/Sannikov 2012), but the absolute priority of the price-stability goal no longer goes unquestioned, and some central banks' de-facto mandates have already been broadened to include financial stability (Klomp 2009; Borio 2011). As the interest rate was not sufficient to cope with financial instability, new instruments and additional supervisory and regulatory powers will be required to ensure financial stability (Issing 2012; Borio 2011). Unlike central bankers, economists go so far as to see inflation-targeting no longer the state-of-the-art approach (Carré et al. 2013; Issing 2013). After all, it was during a time of low and stable inflation when the credit and asset price bubbles began to inflate. Possible alternatives to inflation-targeting include the Taylor rule, which places economic variables other than inflation into the equation that derives the nominal interest rate. Proponents suggest that the Taylor rule would remove inefficiencies created by the current discretionary policy (Taylor 1993). Second, it is generally accepted that the interest rate alone is not sufficient to overcome the crisis and to kick-start the recovery; instead, central banks have to deploy their balance sheets to influence interest rates along the whole yield curve and stabilize the financial system (Borio 2011). Third, there is consensus that the focus of regulation and supervision has to expand beyond the individual financial institution and to take into account system-wide developments. As Caruana (2010) points out, macroprudential policies require not only regulation and monitoring on the microprudential level but also close interaction with fiscal authorities and international coordination. Overall, more flexibility toward and tolerance of inflation, stronger coordination with fiscal and other monetary authorities, and a broader mandate for central banks that includes financial stability describe the broad consensus (Issing 2013).

Outside these broad areas of common understanding is disagreement regarding the specifics, as illustrated by the answers to a questionnaire by central bankers and economists (Carré et al. 2013). Among these disagreements is the role of central banks in ensuring financial stability, which economists see as important and central bankers consider to be of secondary importance, since monetary policy could be endangered if central banks' focus expands to include financial stability. Second, disagreement surrounds the future role of central banks. Should they return to the Jackson Hole consensus by not targeting asset prices, by not trying to deflate bubbles, and by following a "mop-up" strategy after bubbles burst (Issing 2012)? Should they continue to support output through balance sheet measures and other unconventional monetary policies, or should they return to their original task of ensuring price

stability? Should they “lean against the wind” to prevent the build-up of future imbalances, or should they continue to follow the old concept of cleaning up afterward? Carré et al.’s (2013) survey results show that economists tend to favor the “lean against the wind” principle and a broader mandate for central banks. At the same time, economists point to the reputational risk central banks face when the so-called neutrality of money principle no longer holds. The broadening of Bagehot’s (1873) “lender of last resort” principle, the coordination of policy with fiscal authorities, and the call to abandon a strict inflation-targeting approach all endanger the banks’ reputation by increasing the likelihood that the line between fiscal and monetary policy is crossed and that the central bank becomes part of politics (Issing 2012; Borio 2011; Taylor 2012; Caruana 2013; Taylor 2013; Hannoun 2012). Multiple mandates, some of which may be influenced by fiscal policy, will cause central banks to run the risk of fiscal dominance as higher public debt and intrusion in the name of coordination lead to pressure on the central bank (Martin 2013; Koshie 2013; Stella 2010; Brunnermeier/Sannikov 2012; Hannoun 2012). Such a wide broadening of mandate is not necessary, as the government could replicate almost all policies, apart from interest-rate setting, in which central banks have engaged since the outbreak of the crisis (Borio/Disyatat 2009; Hannoun 2012). As Buiter (2012) points out, the only unavoidable fiscal dimension of monetary policy is the generation of seigniorage; avoidable dimensions include credit risk in general and the monetary financing of Euro sovereign debt in particular. The great concern is that an excessive focus on financial stability may interfere with the long-term objective of price stability (Cukierman 2011). As shown in Carré et al. (2013), central bankers tend to be in line with the more skeptical economists and to be hostile toward the notion of considering more than inflation in their interest-rate decisions. They would prefer the “cleaning-up afterwards” principle and a return to pre-crisis principles, demoting financial stability to a temporary issue of importance only in times of abnormal financial market distress (Borio 2011; Carré et al. 2013; Caruana 2013). Pre-crisis thinking, which is the basis of their credibility and legitimacy, still looms large in central banks (Carré et al. 2013).

With the breakdown of the consensus, the public’s and politicians’ expectations regarding central banks’ abilities changed too, and the range of acceptable goals for monetary policy broadened in several ways, as the public increasingly sees central banks as the guarantors of economic growth, while the priority of the price stability goal has become shaky. In addition, central banks’ ability to shore up public finances through low refinancing costs for

governments has also become a focal point as public debt balloons, debt-to-GDP ratios worsens, and large spending deficits become more common. Finally, the public has come to expect central banks to guarantee financial stability (Issing 2013). While it is too early to make a final judgment, it is difficult to imagine how central banks can achieve this goal single-handedly, as doing so would include a “lean against the wind” strategy during the build-up of a crisis, liquidity provision during the crisis, and the clean-up after a crisis (Orphanides 2013).

As a result of the lack of consensus among economists, central bankers and academics the ECB no longer commands sovereignty of interpretation over monetary policy, and central banking theory no longer serves as the basis for unquestionable authority. Instead, the ECB is torn between competing political interests, has no clear theoretical monetary policy roadmap, and faces expectations that are difficult to fulfill. The advocates of a more aggressive monetary policy claim the ECB is doing too little, too late, while the supporters of more cautious policies claim that the ECB has overstepped its mandate and lacks the necessary legitimacy for its current policy course. The dissent concerning the correct monetary policy has allowed central banks to stretch far beyond traditional monetary policy to contain the financial crisis without initiating a public outcry, but the lack of consensus on how to tackle the crisis means that it can no longer be argued that the ECB has objectively selected the “right” policy option. Instead scholars point to the profoundly political nature of the ECB’s monetary policy (Sciocluna 2013; Issing 2013).

2.3.2. A new institutional setup for central banks?

In addition to goals and policy tools, the discussion extends to the question of the appropriate institutional setup. As the lines between fiscal, monetary, and regulatory policies become blurred, central banks’ independence is no longer a given. Despite their success during the “great moderation,” their policies and status have come under attack (Issing 2013). Criticism focuses on the role of central banks before the crisis, especially after 2000, and on the highly discretionary policy choices of the past few years. Critics question broadening central banks’ mandates to include questions of financial stability and regulatory policies, as doing so undermines the principle of separation that has shielded monetary policy from outside influences. In the field of crisis resolution, where fiscal resources might be placed at risk outside national parliamentary control and discretionary powers are used, the case for central bank autonomy is much weaker than it is in the field of monetary policy (Stella 2010; Scharpf

2013; Goodhart 2010; Wrobel 2010; Scharpf 2014). While critics may accept a central bank with no substantive accountability's setting the interest rate, they do not accept that the bank is the lender or market-maker of last resort and an important fiscal actor (Buiter 2012).

While there is some agreement on the fact that the structure of central banks must be reviewed to reflect new tasks and policies, the propositions for change differ widely. Some call for rebalancing the trade-off between independence and accountability to reflect the possibility of an enlarged mandate, while others call the whole concept of independence into question (Borio 2011; Carré et al. 2013; Wrobel 2010; Scharpf 2014), as the central banks of Sweden and the UK are a working example of much less independent—but not less successful—central banks (Forder 2005). Finally, some believe that, despite risks of an enlarged mandate, no structural change is necessary, as the interventions have been in line with monetary policy orthodoxy and, in this case, the ECB's legal provisions (Schwäbe 2013).

2.3.3. Conclusion

The discussion regarding the future role of central banks is far from over, as consensus has broken down as a result of the global financial crisis. While everyone seems to agree that central banks need a broader mandate and that the central four hypotheses regarding the role of central banks no longer hold, no new consensus has emerged. While a discussion surrounding both role and ability of a central bank could be potentially harmful to any central bank, the risk for the ECB is especially serious, as unlike national central banks, the ECB is not embedded politically, it has no central fiscal authority with which to coordinate, and it is disconnected from national debates surrounding monetary policy (Sciocluna 2013). Over the past two decades, monetary theory has supplied technocrats in central banks with arguments for why monetary policy-making should be left to central banks instead of to democratically legitimated or at least accountable institutions, the outcome of which has been the ECB's total independence from elected politicians. However, the technocratic argument for simply executing economic best practices has lost its appeal, and technocratic institutions like the ECB have to find new ways to defend and legitimize their policies. The open dissent among economists, central bankers, and other stakeholders regarding the future functions and institutional set-up of central banks render a return to "normal" monetary policy illusive. At the heart of the economic disagreement lie the question of durability and the consequences of unconventional monetary policy (Issing 2013; White 2012).

In the following discussion, I deviate from the economic discourse by focusing not on the economic consequences of unconventional monetary policy in terms of changes in inflation expectations but on the question concerning why the ECB continues to engage in unconventional monetary policy despite its harmful effects on the ECB's credibility and chances for continued independence.

3. Decision-making in the Governing Council

3.1. The EMU in crisis

3.1.1. ECB and ESCB: structure, responsibilities, and dilemmas

The ECB reflects the pre-crisis consensus on monetary policy-making in both its structure and its mandate. Following monetary policy best practices, the EMU member states grant the bank far-reaching independence and enshrined price stability in the treaty as the bank's primary policy goal (Treaty on the Functioning of the European Union, Protocol on the Statute of the ESCB and of the ECB).

Next, I discuss the structure and responsibilities of the ECB and then outline the dilemmas that arise from the chosen structure.

3.1.1.1. Structure and Responsibilities

Contrary to widespread belief, the ECB is not a classic central bank. As Seidel (2003) shows, the ECB is the supranational subsidiary of the intergovernmental ESCB—or, more precisely, of the intergovernmental Eurosystem that encompasses all national central banks of the ESCB that participate in the Euro (Seidel 2003). Nevertheless, some scholars compare the ECB to Germany's Bundesbank and the national central banks of the member states to Germany's Landeszentralbanken. The Twin Sister Hypothesis proposes that the resemblance between the ECB and the Bundesbank goes beyond legal provisions to include concrete patterns of decision-making and norms of behavior (Buiter 1999; Debrun 2001). Some scholars believe that, similar to Germany's system, a powerful ECB at the core of the system can discipline the national central banks. Such equating is misleading (Seidel 2013).

The participating states presented the EMU as a way to pool and share monetary powers but not as a transfer of these powers (Howarth 2007). Therefore, despite being declared integral parts of the ESCB, the member states' national central banks remain national institutions within the realms of their national constitutional structure, have legal personalities within their national laws, and have not been transformed into European institutions (Seidel 2003; Scheller 2006). The fact that member states can independently choose the governors of their national central banks, who can dominate the Governing Council of the ECB via the simple-majority rule, underscores the intergovernmental character of the ESCB (Seidel 2003). In addition, monetary policy in the EMU is much more decentralized with regard to policy

implementation than is the Bundesbank or the Fed. Therefore, the ECB has no institutionally pre-eminent position over the national central banks that form the ESCB (Seidel 2003; Howarth 2007).

The institutional structure of the ECB is the result of a compromise between the need for a unified decision-making process in a monetary union and the desire to involve national central banks (de Grauwe 2000). While the Governing Council of the ECB represents a unified decision-making approach, the presence and influence of national central banks' governors reflects the geographic and national representation approach. A system of central banks instead of a real central bank was set up for three primary reasons. First, the establishment of a central bank, possibly concentrated only in Frankfurt, was unacceptable to many national politicians on political grounds; the presence of strong national central bank governors on the Governing Council was an important selling point when the EMU was presented to the national publics (Howarth 2007). Second, the Eurosystem's approach was to build on the experience of the national central banks by preserving their structures and operational capabilities, especially since national central banks still need to perform tasks that have no connection to the Euro. Third, given the many nations and cultures that participate in the Euro and the wide geographic area they cover, national central banks provide interest groups a better access point to the system than a centralized ECB would provide (Scheller 2006; Badinger/Nitsch 2014). The importance of national macroeconomic policy-making and the weak Europe-wide coordination of economic policy are additional reasons for national central banks' serving as the direct link between the ECB and the member states (Howarth 2007).

Of course, geographic and national representation has both costs and benefits. While the added value of the national central banks' knowledge about local institutional circumstances and financial markets is likely high, national representation also gives national central banks considerable influence on decision-making (Berger/De Haan 2002), the size of which influence depends on voting procedures, agenda-setting, and the role of the members of the directorate. Parts of the literature consider the Executive Board to be the agenda-setter at the Governing Council that proposes a policy that is then discussed and decided upon in the Council. However, since many of the discussions with national central bank governors that lead to policy proposition are informal and bilateral, there can be an information imbalance between the directorate and the national central bank governors (Heisenberg 2003). Heisenberg's (2003) interviews with national central bank employees support this view. The

question concerning whether members of the directorate focus on Eurozone or national needs is still up for discussion; while most of the literature sees a Eurozone focus, national preferences are not unrealistic. An explanation for the directorate's focus on national needs could, for example, focus on the pragmatic retention of power. In order to safeguard the ECB's status and independence, the directorate could always choose to present proposals in line with the majority of national central bank governors' monetary policy preferences (Heisenberg 2003).

Turning now from the ECB's structure to its responsibilities, most monetary policy decision-making powers in the Eurozone, especially the right "to define and implement the monetary policy of the Community," lie with the ESCB instead of the ECB (Treaty Art. 105, Paragraph 2). As the ESCB has no legal capacity on its own and not all national central banks of the ESCB participate in the Euro, the ECB acts on behalf of the ESCB only by exercising the core functions of the Eurosystem in partnership with the national central banks that form the Eurosystem. However, these functions are not delegated to the directorate of the ECB but to its Governing Council, of which all national central bank governors of the Eurosystem are ex-officio members (Seidel 2003; Scheller 2006); the directorate itself has been given responsibilities of only secondary importance. One example is the directorate's authority to issue instructions to national central banks, which scholars who attempt to demonstrate the ECB's pre-eminent position often cite, but since no national central bank has to fear direct consequences from disobeying an instruction, the authority is a blunt sword. Such instructions can be enforced only via a lawsuit at the European Court of Justice, but filing a lawsuit against a national central bank that is not following the instructions issued by the ECB requires a vote of approval through the Governing Council. Therefore, contrary to the wording of Protocol Article 12.1, Paragraph 2, the authority to enforce instructions issued to the national central banks does not in practice lie with the directorate but with the Governing Council (Seidel 2003).

3.1.1.2. Dilemmas

The structure and responsibilities of the ECB present a number of dilemmas for the ECB, the first of which is related to perception. While the public views the ECB as a powerful and independent European institution that hovers above national interests, the ECB is neither a real European institution nor very powerful in itself. It is not a community institution, as it is not referred to in the Treaty Article 7, but a supranational institution dominated by national

representatives. Individual governments choose the governors of their national central banks, and these governors remain under the authority of their national constitutional structures. As a result, the governors are an important avenue for national interest groups that range from special-interest groups to the general public to affect European monetary policy. The simple-majority decision-making rule in the Governing Council empowers the governors at the expense of the (possibly) more Europe-focused directorate.

The second dilemma, closely related to the first, is the inherently intergovernmental character of the ECB. Although it is an institution protected by a ban against interference by national or European bodies, the “one country, one vote” principle of the ECB almost demands that the central banks’ governors act as representatives of their respective member states. Their countries’ governments choose them, they act as experts on their nations’ monetary policy needs, and they vote on decisions that directly affect their home countries. The urge to focus on national needs and preferences is strengthened by the structure of the monetary union: According to monetarist theory, monetary policy should focus on the actual condition of the economy if the policy is to work properly, and with nineteen national economies in the EMU, this precondition is almost impossible to fulfill (Scharpf 2011; 2012). The systematic economic performance and preference differences that prevail between, for example, the fast-growing central and eastern European States and the slower-growing foundation members increase the risk that national considerations will prevail over European ones (Berger/De Haan 2002; Eijffinger 2006; Heisenberg 2003). In addition, national autonomous fiscal policy creates externalities in a monetary union, as any successful supply-side policy that reduces the cost and increases the profitability of domestic production must have a beggar-my-neighbor effect (Scharpf 2011). The lack of coordination means that the EMU can rely only on the Stability and Growth Pact to internalize these externalities (Collignon 2013). Differences in economic performance between regions are common to any monetary union, but the absence of political and fiscal union in the EMU complicates possible solutions. While at the national level differing preferences can be mediated via the political system, this route is blocked by the absence of a unified political system in the EMU (Gros/Hefeker 2000). Therefore, the ECB has been operating under sup-optimal conditions from the beginning (Scicluna 2013). Because of the “one country, one vote” principle, which prevents an alignment of voting power to economic weight, and the missing fiscal and political union, the ECB always runs the risk of a bias through the overrepresentation of more inflation-prone states (Eijffinger

2006; Baldwin et al. 2001; Howarth 2007). The criticism about recent interest rate decisions from some of the national central banks' governors from economically strong countries supports the view of such overrepresentation. The question concerning the extent to which the ECB should be concerned about these regional differences is important, as the member states remain the core political units of the EMU (Gros/Hefeker 2000; Cancelo Ramón et al. 2011).

3.2. Theory overview – How to explain decision-making in independent central banks

3.2.1. Theoretical approaches to institutions and institutional decision-making

Certain core questions regarding institutions' influence are how they are set up and what influences their decision-making. The same ideas and assumptions that drive how institutions are set up can often also explain institutional behavior, as these ideas and assumptions are bound to affect the decisions these institutions make later. The two concepts most often used in the literature are the calculated cost-benefit concept of rational actors and the cultural concept, where an actor's view of the world shapes his or her decision-making (Hall/Taylor 1996). With regard to central banks and monetary policy, the literature generally agrees that the broader social, political, economic, and historical contexts in which central banks are embedded play a role in how they are set up and, therefore, in their decision-making. Monetary policy, which creates domestic winners and losers, is affected by the dominant public and political ideology and by the country's international political and economic relationships (Ball 1999; Levy/Spiller 1994; Stasavage/Guillaume 2002).

The public choice and related political economic literature, such as that which addresses rational choice institutionalism, focuses on the possibility that non-economic factors influence monetary policy. Rational choice institutionalism draws on the new economics of organization, emphasizing property rights, transaction costs, and institutions to circumvent collective-action problems. Rational choice institutionalists assume actors' preferences to be fixed and actors to behave completely instrumentally and strategically so as to maximize gain (Hall/Taylor 1996; Huber/Shipan 2000). While, in the tradition of rational choice institutionalism, economic factors like GDP growth and inflation rate have considerable impact, scholars also recognize that central banks operate in the political sphere and face political factors that might influence monetary policy-making, including external pressure by interest groups and governments, as well as the general public's stance on monetary policy (Maier/Bezoen 2004; Eijffinger/De Haan 1996; Hielscher/Markwardt 2012). Scholars in the

related field of independent regulatory agencies propose policy conflict, political uncertainty, expertise, and constituent support as factors that also influence independent agencies' decision-making autonomy (Christensen/Yesilkagit 2010; Furlong 1998). The literature assesses several proxies for external pressure. For example, Maier and Bezoen (2004) find that pressure on central banks from national governments, commercial banks, industry, trade unions, and other sources increases if unemployment is rising and governments' approval rates are falling. Lohmann (1998) examines the pre-EMU Bundesbank to show that Germany's central bank's discretionary powers varies greatly with the popularity of the chancellor and his or her economic policies; the more popular the chancellor, the greater the government's ability to influence monetary policy. Ringquist et al. (2003) consider the related topic of independent regulators to show that public salience increased politicians' efforts to influence the agency, and complexity decreased it. Another significant driver of pressure on central banks is the unity of the veto players, as the more veto players there are and the less aligned they are with each other, the greater the chance that central banks' de-jure independence actually corresponds to de-facto independence (Lohmann 1998; Hayo/Voigt 2008). Not surprisingly, not all scholars accept this view on political determinants, as some find that political determinants have little influence on policy-making independence (Christensen/Yesilkagit 2010; Furlong 1998; Egeberg/Trondal 2009). Gersl (2006) finds that political pressure for easy monetary policy had no effect on the Czech national central bank, and Maier et al. (2002) find similar results for the Bundesbank, which does not react to pressure from politicians, trade unions, and associations but only to pressure from the financial sector. The extent to which the ECB faces such pressures is debatable: Some scholars point out that the ECB, as a supranational institution, is less susceptible to and less accessible to pressures than national institutions, especially if they originated in the national sphere (Maier/Bezoen 2004).

Social choice and historical and sociological institutionalism go further by challenging the self-interested cost-benefit calculus, a core pillar of traditional economics. Scholars claim that purely functional explanations provide a good starting point for the analysis of institutions and institutional decision-making but are insufficient to explain the wide variety of outcomes. Historical institutionalism focuses on normative ideas and institutional factors, which scholars define as formal or informal procedures, norms, and conventions in the relationship between political actors. Scholars accept that conflict between groups for political gain lies at the heart

of politics. Sociological institutionalism, on the other hand, includes cognitive ideas and an even broader definition of institutional factors, including habits, rituals, and cues. They posit that institutional forms and procedures are adopted not because they are the most efficient but because they are culturally embedded and socially constructed (Thatcher/Sweet 2002; Thatcher 2011). Hofstede (2001: 9) describes culture as the “collective programming of the mind.” Therefore, institutions do not only affect actors’ utility calculations; institutions shape actors’ very preferences and identities (Campbell 1998; Hall/Taylor 1996; Ball 1999). Christensen and Yesilkagit (2010) show that historical and cultural determinants best explain the creation and independence of an agency, even when controlling for alternatives like the functional argument of credible commitment, the ideology of the government, and the constitutional character of the enacting law. Bohn and de Jong (2011) and de Jong and van Esch (2013) use national cultural variation to explain EMU member countries’ differences of opinion regarding how to overcome the financial crisis.

Structural choice combines social-choice and rational-choice approaches. From social choice comes the emphasis on the instability of majority rule, and from rational choice comes the emphasis on how institutions can mitigate collective action problems so politicians can realize gains (Moe 1990). The positive theory of institutions recognizes that social choices are not chaotic but stable, as they rely not only on majority rule but are also constrained by all sorts of institutions that limit their alternatives (Moe 1990). Institutions serve the double purpose of helping to mitigate collective action problems and providing the structural means of coercion and redistribution of gains by political winners (Moe 1990), so politicians are faced with two major problems: the problem of hierarchical control and how to ensure that an organization takes actions in line with its creator’s preferences, and the problem of political uncertainty. Bawn (1995) points out that legislators would like to design procedures so agencies gather information and use it exactly as the legislator would have used it. As to political uncertainty, since the danger of political uncertainty can be anticipated and ex-post sanctions of independent organizations are generally weak, politicians have to choose the degree to which organizations are isolated from the political process (Moe 1990; Huber/Shipan 2000; Bernhard et al. 2002). However, the isolation and independence of the agencies limit their political responsiveness (Bawn 1995). The greater this initial zone of discretion on behalf of the organization, the more significant the effects and the unanticipated consequences (Thatcher/Sweet 2002). At the same time, actors try to manipulate the organization’s design to

increase transaction costs to prevent future changes and optimize their expected payoff in light of political instability (Huber/Shipan 2000). Contrary to economic theory, political actors cannot just leave arrangements behind once they have outlived their purpose, as they are trapped within the system (Moe 1990). Institutions then act as a barrier to high transaction costs for any coalition that wants to implement policy change. Bohte and Wood (2004) show that decision-makers' perceptions about political instability are important in determining the design of organizations. In the politics of structural choice, interest groups, not the general public, are the most important social actors. Unlike the general population, which usually cares only about policy and, therefore, outcomes, interest groups are well aware that structure and policies are closely linked, so they make demands and exert pressure (Moe 1990). While some of the literature considers that procedural decisions made during the creation of an agency affect its subsequent decisions, game theory models assume that agencies' preferences are endogenously, not exogenously, given (Bawn 1995). Agencies are not passive actors; instead, they entrench themselves in supportive clientele and try to broaden that clientele. Over time, the relationship between principals and agents changes as agencies gain power and importance. They learn to exploit their power to go beyond their formal rules, and to grow informal norms. They become key actors, acquire expertise, and structure their policy areas, thereby changing how they make decisions (Thatcher/Sweet 2002; Thatcher 2011). In doing so, they raise the political cost of disruption if the legitimacy of their independence from government has been postulated and transnational communities of experts have contributed to making delegation part of good governance orthodoxy (Thatcher/Sweet 2002; Moe 1990).

3.2.2. Core assumptions – De-jure versus de-facto independence

The core hypothesis made explicitly or implicitly by scholars when they analyze the decision-making process is that de-jure independence is not necessary the same as de-facto independence (Christensen/Laegreid 2007; Hanretty/Koop 2013; Maggetti 2007). Legal indices are often difficult and even unreliable indicators, as laws rarely spell out the limits of authority between central banks and political actors clearly, and they largely ignore possible external influences (Sturm/De Haan 2001). The fact that monetary policies in advanced economies look increasingly alike while legal indices differ increases skepticism about the value of these indices (Siklos 2008). Economists and political scientists tend to rely on the principal-agent theory to describe the relationship between the political sovereign and the independent delegate (Majone 2001), but when such a delegation amounts to a more or less

permanent transfer of responsibilities, the principal-agent relationship is more along the line of the fiduciary principle (Majone 2001). Nevertheless, as Siklos (2008) points out, the notion of independence is generally misleading, as the central bank is a state's creation, so the bank can be at best autonomous but not entirely independent from the state that created it (Siklos 2008). Central banks' autonomy is, by definition, a matter of degree, as their authority is based on statutes or constitutional provisions, both of which politicians can change (Franzese 1999). A central bank's freedom to carry out its policies can vary with the government's preferences, so the bank independence is a continuous variable (Siklos 2008; Thatcher 2005; Meltzer 2013; Lohmann 1998). While monetary policy in general might have low political salience and be seen as best left to specialists in central banks, rising levels of unemployment and inflation can increase its political salience (Scharpf 2011). Lohmann (1998) shows that the Bundesbank's formal status remained unchanged between 1957 and 1992, during which time the degree to which monetary policy was accessible to political pressures changed regularly, and Meltzer (1998) states that the Fed's independence has always varied over time. Politicians will always watch monetary policy, as it heavily influences macroeconomic developments like GDP and wage growth and, through this channel, affects politicians' election chances (Gersl 2006). The complete de-politicization of monetary policy is utopian (Watson 2002; Down 2004).

3.2.3. Core assumptions – Regional bias and the myth of decision-making based on a European view

The second core assumption in the literature is that members of any central bank decision-making body have regional biases. National central banks' governors have never been genuine *homines economici* but citizens of countries with interests in local concerns (Heisenberg 2003; Cancelo Ramón et al. 2011). As de Grauwe et al. (1999) point out, there are no provisions in the European treaties that prohibit national central banks' governors from placing more weight on their countries' needs than on any other needs. Most of the literature assumes that, despite contradicting statements from the ECB, the national central banks' governors vote in keeping with their national economic needs, but opinion on the directorate's voting behavior is mixed (Heisenberg 2003; Heinemann/Hüfner 2002; Bindseil 2001; Fahrholz/Mohl 2008; Ullrich 2004; Heinemann/Hüfner 2002; Belke/Styczynska 2006; Bénassy-Quéré/Turkisch 2008). The view that there is a regional bias has been reinforced by press leaks, doubts about the actual degree of the ECB's independence, the role of public

opinion in the utility functions of the national central banks' governors, and empirical evidence from both the Fed's Open Market Committee and the pre-EMU Bundesbank (Meade/Sheets 2002; Heisenberg 2003; Heinemann/Hüfner 2002; Berger/De Haan 2002; Badinger/Nitsch 2014). Meade and Sheets (2002) show that the Fed is designed to represent both national and regional needs and show in their analysis of the Fed's Open Market Committee's voting records that regional unemployment levels significantly influence the committee members' decisions. These results are reinforced by Berger's and de Haan's (2002) finding that regional differences in inflation and real growth influenced voting behavior in the Bundesbank's Governing Council. As for the ECB, the reform of the ECB's decision-making rules and the introduction of the rotation groups support the regional bias assumption. In principle, as all member of the Governing Council participate as experienced experts and not as national representatives, a simple rotation model should have been sufficient, but the reform process itself suggests that governors defended the macroeconomic interest of their home countries and that their levels of bargaining power differed. The reform recognizes that the statuses of the central banks' governors vary, as they can vote more or less often depending on their home states, and that they are not *ad personam* members of the Governing Council (Howarth 2007). First empirical studies show that the ECB's interest-rate policies are best modeled by national preferences with regard to monetary policy (Badinger/Nitsch 2014; Hayo/Méon 2011). Meade and Sheets (2002) show that, in nearly every case, the majority of ECB officials voted in a way that could be justified by the difference between their preferred national interest rate and the Euro area interest rate (Meade/Sheets 2002). Proponents of the so-called German Dominance or Twin Sister Hypothesis also contend that members' differing statuses are mirrored in the ECB's interest rate decisions and show that larger countries, such as Germany, have more impact on the decision-making process than smaller countries do, resulting in interest rates that are more in line with the larger countries' national needs (Petrova 2010; Fatum 2006; de Grauwe et al. 1999). Other scholars show that, when the crisis started, the interest rate moved away from German preferences and toward those of the hardest-hit countries, so interest-rate setting seems to be directed largely toward countries that fare economically worse than the Euro-area average (Drometer et al. 2013).

Differing preferences among members of the Governing Council could result from a range of issues. First, member countries' macroeconomic performance can vary and influence the

voting behavior. Second, although price stability is, at least for the moment, the overriding principle, inflation preferences may differ based on interpretation of data and the perceived medium-term inflation risk. Third, preferences may differ depending on whether Euroarea aggregates or national economic data weigh more heavily. Finally, the differences in transmission mechanisms among member states can influence inflation preferences or at least preferences about the magnitude of change. Possible variables in the transmission mechanism are consumer borrowing, level of public debt, debt maturities, and the degree to which national commercial banks buffer changes in the interest rate (Heisenberg 2003; de Grauwe 2000; Angeloni et al. 2003; Petrova 2010; Howarth 2007; Bénassy-Quéré/Turkisch 2008; Dreher et al. 2010; de Grauwe et al. 1999). Additional non-economic explanations include ideology, opposition from the financial sector, aversion to inflation, social cohesion, and the culture and tradition of monetary stability in member states.

National central banks' regional biases may also depend on the banks' appointment mechanisms and reputation. Governments, which voters have chosen to formulate policies along voters' preferences, choose the governors of their national central banks, so it is likely that the governors' and voters' long-term preferences are compatible. Vaubel (1999) posits that, since the ECB's Governing Council members have more policy independence than tenure security, they will be inclined to pay attention to their home countries' governments, ideologies, and election cycles. Vaubel also shows that central bankers are independent, but they are also loyal to the politicians who appointed them and whose ideologies they share (Vaubel 1999). In addition, national central banks' governors rely for their reputation on national media, which increases their motivation to consider national concerns first (Bénassy-Quéré/Turkisch 2008; Heinemann/Hüfner 2002).

Summing up, monetary policy is a function of the central banks' preferences as they relate to economic variables, the transmission of the interest rate, the state of the economy, and shocks that may unexpectedly change the state of the economy, as well as non-economic variables like the appointment mechanism and the governors' individual reputation (de Grauwe et al. 1999). While the majority of the literature that addresses central banks' independence treats central banks as some kind of nonpolitical benevolent planner that works to improve the general welfare, they do act within and are influenced by a political and economic ecosystem; they are societal actors with their own political interests (Bernhard et al. 2002).

4. Political Audience Cost Theory

Most scholars have focused almost entirely on the question of why independent central banks were established and what economic benefits they can provide. Considerably less attention has been paid to the question concerning why, in an environment in which institutional change regularly occurs, the ECB has managed to protect its decision-making powers. Institutions are not set in stone and delegation is not irrevocable; policy-makers regularly change central banking laws, hire and fire central bank governors, and infringe on central banks' de-facto independence to achieve political advantage. However, central banks have displayed impressive survival ability and restraining powers on policy-makers, which is even more striking considering that the interests of central banks and governments are often fundamentally at odds (Lohmann 2003; Keefer/Stasavage 2003). As Miller (1998) points out, the fact that independent central banks were created in the first place and that they have survived shows that they enjoy the support of many politicians and a sufficiently large number of political interest groups.

An institution's prestige alone is not sufficient to ensure its continued existence, let alone its independence (Keefer/Stasavage 2003; Thatcher 2005). Formally, independent central banks can pursue a low inflation policy only if there is an anti-inflation coalition that can protect the bank against inflation-biased politicians (Lohmann 1998). Therefore, monetary policy must be in line with the public's medium-term to long-term preferences (Farvaque et al. 2011). As Berman and McNamara (1999) point out, the real source of the pre-EMU Bundesbank's effectiveness was not its formal independence but widespread support and public acceptance of the anti-inflation stance of its monetary policy. As part of the wider political system, central banks need political support to achieve their objectives (Posen 1995; McNamara 2006).

Clearly, there are strong reasons to believe that de-jure independence does not map easily into de-facto independence and that, instead, a wide range of influences affect monetary policy-making. While this observation is not new, the post-crisis dissent in academic circles, the resulting breakdown of the ECB's sovereignty of interpretation, and the highly questionable use of unconventional monetary policy have all exacerbated the problem. Even so, the existing literature is rarely explicit about the transmission mechanism that connects the underlying institutional and political-economic motives to the preferences of the ECB's Governing Council members.

One transmission mechanism that has not received the attention it deserves is the Political Audience Cost Theory. Developed to explain the outcomes of intergovernmental bargains, the theory forms part of Transaction Cost Theory, which focuses on the types of costs—the most important of which is the cost of the failure of credible commitment—that arise from the need to measure and enforce agreements. Transaction costs influence the structure of institutions, with which politicians try to control decision-making (Huber/Shipan 2000; North 1993). Transaction cost measurement is frequently difficult, as the characteristics and dimensions of the transaction being measured are not easily defined. The theory assumes that political actors are rational optimizers without complete information (Huber/Shipan 2000). The transaction is a swap of promises for votes, but there is no direct enforcement mechanism to ensure that contractual agreements are carried out (North 1993).

Proponents of Political Audience Cost Theory have modeled international crises as wars of attrition in which politicians can choose at each stage whether to escalate, attack, or back down (Fearon 1994). The longer the confrontation lasts, the higher the audience costs for the politician who backs down first, as voters punish politicians who issue threats or promises and fail to follow through. According to Tomz (2007), who studied audience cost with regard to US presidents, voters think even less of leaders who back down than they do of leaders who never commit; empty threats cause disapproval rates to rise and approval rates to fall, especially among the politically active segments of the population. It is relative audience cost that matters. The state with higher audience costs will be less likely to back down than the state with lower audience costs, no matter the price or how great the states' initial resolve (Fearon 1994).

In a paper on institutional commitment, on which most of the following paragraphs are based, Lohmann (2003) shows how Political Audience Cost Theory explains the persistence of institutional commitment to independent central banks. At the heart of the theory lies the idea that every institution is made vis-à-vis an audience and that it derives its credibility from a political cost that that audience can inflict. This audience must be able and willing to monitor the institution so it can punish the institution's failures and politicians' attempts to affect the institution's business. By being associated with a monetary institution, politicians also select the attached audience and establish the cost of reversing a decision (Lohmann 2003). Similar to the original theory, political audience cost prevents policy-makers from issuing threats unless they are willing to follow through.

In addition to depending on credibility, institutions also rely on a certain degree of flexibility, as unforeseen events can always happen. To be flexible, institutions must have an audience that is able and willing to differentiate between necessary and unnecessary moves away from promises. Therefore, the perfect audience would be able to inflict serious political costs in case of fundamental institutional defection, such as if German policy-makers decided to change the Bundesbank's mandate to increase inflation, while also excusing necessary defections, such as when the inflation rate stands for a limited time at 1 percent instead of 2 percent. Of course, since this perfect audience is usually difficult to find, most institutions rely on multiple audience groups to create a complex web of guardians. The two key types of political audiences are the mass electorate and specialized elites. These audiences differ in the degree to which they are informed and can understand and allow defections that are validated by certain situations and the kind of punishment they can inflict. While elite audiences like policy-makers, the financial sector, unions, and economists can execute a precise sanction strategy and excuse justified defections, the mass electorate's simpler, cruder form of punishment is levied without distinction between justified and unjustified defection. Having multiple audiences allows institutions to combine flexibility and credibility, with their credibility stemming from the audience cost that especially the mass electorate inflicts—the highest cost being voting policy-makers out of office in the event of an institutional defection or an undue attack on the institution—and their flexibility being rooted in the ability of specialized elites to excuse defections that go unnoticed by the mass electorate when unforeseen events require them (Lohmann 2003).

Political Audience Cost Theory not only explains why central banks have managed to preserve their independence, it also helps to clarify why central banks are responsive to outside influences. In fact, Political Audience Cost is a transmission mechanism that connects actors' underlying institutional and political economic motives with the preferences of the ECB's Governing Council members and actual monetary policy-making. In order to secure the support of their audience groups, central banks cannot ignore the possibility of hostile political reactions to their policies, so they must incorporate into their policies outside preferences to a certain degree (Jones 2009). As a result, monetary policy will be a combination of the policy that would prevail if the bank could set it truly independently and the policy that would prevail if only the government had a say; therefore, the anti-inflation stance will not be constant but will vary with the broader political economic environment

(Franzese 1999). Most studies show that even the most independent central banks are responsive to political pressure, at least to a degree (Gersl 2006). For example, the Fed, despite its independence, is not insensitive to political and public reactions to its policy. It attaches more weight to costs arising from negative output gaps than to costs arising from positive output gaps. In times of stable inflation rates, avoiding recession is the dominant preference (Cukierman 2008). The behavioral independence of the Bundesbank, considered to be one of the most independent central banks, also varies over time depending on the party control of veto points (Lohmann 1998). Lohmann (1992) and Moser (1999) show that central banks accommodate politicians' preferences if the banks' decisions run the risk of being overridden. The EMU has no veto mechanism, so politicians can only indirectly try to force the ECB into submission by signaling their preferences and threatening to use all levers possible, including changing the bank's status, changing its structure, or even ending the bank's entirely, to gain compliance (Gersl 2006). Politicians can also attempt to control the bank via their powers of appointment, selecting central bankers who share the same electoral or party political goals (Lohmann 1998). Such attempts to intervene in the operations of (formally but not necessarily actually) independent central banks are referred to as a second-order commitment problem (Berggren et al. 2012; Hayo/Voigt 2005).

Apart from these kinds of direct influence on the central bank, politicians also influence monetary policy through decisions related to national economic policy. National economic policy affects price stability, financial stability, and monetary policy, thereby affecting the welfare of all member states. There is significant interdependence between national economic policies in the EMU and monetary policy, as well as possibilities for free-riding. National economic policy also affects the individual country's economic structure, which, in turn, influence the effectiveness of monetary policy. In the absence of coordination among member states, potential conflict looms, and fiscal and monetary policy compete in determining aggregate demand and inflation (von Hagen/Mundschenk 2001; Beetsma/Bovenberg 2000). As such a macroeconomic program is not sustainable, one side will have to give in (Blackburn/Christensen 1989).

When using Political Audience Cost to explain why central bankers are susceptible to outside influence, the underlying assumption is that audience groups can threaten the status of the central bank. However, changes to the ECB statutes are unlikely. The condition of unanimity among member states and the lengthy process to change the status of the ECB doom almost

any attempt to failure. However, as Forder (2005) points out, it might be the ECB's total independence that is its greatest source of weakness. The performance of the Eurozone since its creation has greatly reduced the dominance of the permanent and pervasive risk of inflation in political thinking; the ideational consensus on currency stability that existed when the EMU began has disappeared (McNamara 2006). Instead, low growth and high unemployment has come to the forefront of political disputes. Even when today's low economic performance is overcome, growth will still be regionally uneven. The theory of optimal currency zones makes clear that benefits are dispersed, while the costs of misalignment are concentrated, and countries that have to bear a high share of the burden could become hostile toward the ECB, which lacks depth of popular support compared to national central banks. In that case, national politicians might find it convenient to attribute national distress to the ECB, especially as key decisions about monetary policy are now detached from national politics. In combination with a general hostility toward European integration and the ECB's lack of democratic accountability, these factors might spark a political reform movement (Forder 2005). It is possible, of course, that a hostile reaction would not necessarily come through a vote on the ECB itself but by making its actors more directly accountable (Jones 2009). Although arguing that a reform of the ECB is conceivable does not mean that a reform will actually take place, it helps to clarify why the ECB might take action to prevent it (Forder 2005).

Even if one is not convinced by Forder's (2005) argument, the vulnerability of national central banks is another avenue through which they can be influenced. National central banks in the Eurozone are not constitutional in character, the tenure of governors averages only five years and is renewable, they are staffed with nationals, and they are part of their national political establishment. While the special character of the ECB's founding treaty protects it from overriding, as defined by Lohmann (2002), and intervention by governments, national central banks are not so protected. Therefore, they have to mobilize support for their monetary policies from interest groups and the general public to protect their operational independence (Schwäbe 2013). The public opinion in their home countries should matter more to national central banks' governors than the European public opinion, as the greater the support from their countries' populations, the lower the chance that central banks will have to deal with attacks on their status (Heinemann/Hüfner 2002; Farvaque et al. 2011). Therefore, it is more

than plausible that national central banks' governors take domestic opinion on the performance of monetary policy and the ECB into account.

The present dissertation applies the concept of Political Audience Cost Theory to the ECB in order to identify the likely voting behavior of national central banks' governors. Building on three primary suppositions—the regional bias of national central banks' governors, the intergovernmental character of the ECB, and the need for national central banks to mobilize support for their monetary policy in order to protect their operational independence—I sketch the often neglected link between the underlying institutional and political economy motives and the preferences of ECB Governing Council members. To do so, I analyze the monetary policy preferences of core audience groups in every Euro member state and match them with the ECB's actual monetary policy decisions, choosing certain variables and audience groups to combine the Political Audience Cost Theory with some of the most popular concepts in the literature. The dissertation seeks to achieve two goals: to contribute to the empirical assessment of the ECB's independence through a variety of case studies covering some of the ECB's most important decisions in the past years and to fill a gap in the literature by refining Political Audience Cost as a concept and by making it usable for research on central bank decision-making. Despite its intriguing logic, and with the exception of a study by Lohmann (1998) on the pre-EMU Bundesbank, the Political Audience Cost Theory has received almost no attention in the central banking discourse. Applying the theory to the ECB helps to fill this gap and move the discussion of unconventional monetary policy from the economic sphere into the political science sphere. The dissertation widens the debate by adding an umbrella theory to the discussion that encompasses many concepts in the current discourse. It contributes to shifting the debate to the macro level by refocusing on the fundamental mechanics of monetary policy-making.

5. Political Audiences in the Eurozone

Defining three main audience groups—the general public, political actors, and economic actors—and several proxies for monetary policy preferences facilitates the application of the Political Audience Cost Theory to the Eurozone. In line with the majority of the literature, I have decided to focus on the general public, political actors and economic actors.

5.1. The general public

The general public is the largest and most powerful audience group in the Eurozone. While it cannot exercise a differentiated punishment, its strength lies in its ability to vote governments in and out of office. As the EMU is not a single nation with a shared culture and language, there is no EMU-wide general public, so each member state has a public whose preferences I must assess individually. While the publics in the member states each have their own preferences, there are a number of common determinants for these preferences. The global financial crisis has considerably lowered public support for the EU in general and specifically for the ECB, an institution that started out with a high level of trust. Since 2007, the trend has constantly been downward and support has reached historic lows in the aftermath of the crisis (Gros/Roth 2010). This decline is worst among young workers, executives, and those with high levels of education, the categories that are normally Europhiles. In 2013, trust stood at lower levels in all but one EU country (Zalc 2013), yet development of public opinion has not been uniform in all EMU member states. During and after the crisis trust fell especially hard in the three largest member states, Germany, France, and Italy (Gros/Roth 2010), but the most worrisome cases are those of Italy, Spain, and Greece, where trust has fallen persistently since the Euro's inception in 1999 and has reached new lows (Deroose et al. 2007; Farvaque et al. 2011). In the past, scholars have used individual characteristics and circumstances to explain support, such as gender (men are more supportive than women), education (those with higher education have stronger support), income (those with higher levels of income have stronger support), satisfaction with national democracy (those more satisfied have stronger support) frequent discussions of politics (those who have more frequent discussions have stronger support) knowledge about the EU (those with more information have stronger support), importance given to the EU parliament (those who give the EU parliament more importance have stronger support), use of media (those who watch more news have stronger support), and employment status (the employed are more supportive than the unemployed and retired people) (Hayat/Farvaque 2012; Bernhard et al. 2002; Ehrmann et al. 2012).

Generally, explanations of the public's opinion of the EMU can be grouped into three categories: an economic explanation that depends on a calculation of EMU's costs and benefits, a social identity explanation that includes cultural and historical explanations, and an explanation related to political/ideological cues or elite communication (Hooghe/Marks 2005).

In general, economic considerations are shaped by preferences related to individual well-being and national economic development (Hooghe/Marks 2005). On the individual level, preferences are driven by the distributional effects of unemployment and inflation. Scheve (2004), who studies public preferences for macroeconomic priorities in advanced economies, finds that the economic context has a strong impact on the public's economic preferences. If either inflation or unemployment rises, the public's priority is to turn this development around. If the population is more vulnerable to the losses from unemployment than it is to losses from inflation, aversion to inflation decreases. The population's exposure to costs depends on the labor market's structure and how the ownership of assets and liabilities is distributed. On the national level, preferences are driven by characteristics that affect the costs of unemployment and inflation. Individuals in countries with higher government debt and expenditures are less inflation-averse, as the cost of unemployment is shared by all (Scheve 2004; Farvaque et al. 2011). Farvaque et al. (2011) show that this conclusion holds true only for the original EMU members, while in the new member states, the ECB is often seen as a check to profligate governments. Scheve (2004) also finds considerable cross-country variation in economic preferences when controlling for the economic context, which Scheve explains partially with nation-level factors like the cost of unemployment and inflation, demand for government income, and the composition and size of the financial sector. Scheve also points out that inflation aversion depends on the structure of the national economy, as the more open the economy is, the higher the inflation aversion is because uncertainty about future inflation and high exchange rate volatility hurt open economies. While some scholars challenge the cost-benefit explanation and contend that economic growth plays a role only in crisis situations, while unemployment plays no role at all, when one considers the political salience of economic questions in recent elections in EMU member states, it seems unlikely that personal and national economic well-being plays no role in forming preferences (Gros/Roth 2010).

Empirical evidence on the EMU also underpins the assumption that economic performance influences the public's preferences. As Zalc (2013) shows, support for the EU runs alongside the public's perception of their countries' economic development. Since 2007, positive correlations between national economic development and the general EU image, confidence in the EU, and optimism about the future of Europe have been 0.42, 0.43, and 0.46, respectively (Zalc 2013). Even from 1999 to 2005, a period characterized by high overall support levels for the EMU, public attitude varied from one member country to another, with perceived economic performance being the most important explanatory factor (Deroose et al. 2007), and output in terms of inflation and economic outlook is the key factor that shapes the single currency's acceptance (Deroose et al. 2007). However, the public holds the ECB responsible for both low inflation and financial stability, so higher inflation, banking distress, and financial turmoil have all negatively affected the public's opinion of the ECB (Farvaque et al. 2011). Other scholars have observed similar results, attributing the loss of trust in the ECB to the sudden decline in economic growth in 2008/2009 (Gros/Roth 2010; Farvaque et al. 2011; Ehrmann et al. 2012). As Watson (2002) points out, one reason for this development is more people than ever have a financial interest in the well-being of the financial system, so they support independent central banks that introduce policies that bolster the financial markets (Watson 2002).

National cultures and histories also play an important role in determining the public's preferences, so developments in one country are not necessarily blueprints for developments in other countries (Christensen/Laegreid 2007). Inflation preferences form part of the economic culture of a country, defined as the ingrained values and attitudes of the population (Hayo 1998). Such deep-seated preferences are relevant to everyday monetary policy, as the public ensures a monetary policy to its liking and a fitting institutional form of the central bank by voting in and out of office the governments that shape central banking laws. Inflation preferences are stable as long as there are no exogenous shocks, so public opinion will continue to support price stability even if it harms some people in some situations (Hayo 1998). The economic culture is influenced by historical experience and prior inflation-related experiences, such as hyperinflation or persistently high inflation rates, so these experiences play an important role in the formulation of today's policy preferences. Experiences are passed on from generation to generation, which helps to explain the emergence of low-inflation cultures, as cross-country variation in inflation aversion results from a process of

inter-generational learning (Bernhard et al. 2002; Farvaque et al. 2011; Campillo/Miron 1997; Hayo 1998; Farvaque 2002; Farvaque/Mihailov 2014; Hayo 1998). One of the most well-known and often cited examples is Germany. Studies explain its inflation aversion culture by means of its history with hyperinflation after the first world war (Lohmann 1998). Other authors have shown that this explanation holds for other countries as well. For example, Hayo (1998) finds evidence that populations from countries with low-inflation cultures are more sensitive to a rise in inflation, and Vaubel (1999) shows that national sensitivity to inflation explains as much as 85 percent of the cross-sectional variance in inflation. A good example of the transfer of policy preferences into everyday politics is the high level of support that the ECB enjoyed at the outset in countries with histories of high inflation, as voters in these countries felt that the credibility gained from price stability would compensate for potential costs in terms of unemployment (Majone 2001; Deroose et al. 2007).

Much of the culture-focused research is based on Hofstede's (1984) study on differences in national cultures. Hofstede identified four factors—power distance, individualism, masculinity, and uncertainty avoidance—as explaining differences in cultures. Power distance and uncertainty avoidance describe the public's relationship to governments and markets, as high scores in uncertainty avoidance are associated with a preference for stricter rules (which corresponds with an independent central bank and higher aversion to inflation), and high scores in power distance are associated with acceptance of differences in power and wealth (which corresponds with dependent central banks, as all power should rest with politicians) (de Jong/van Esch 2013; Steenkamp/Geyskens 2012). Therefore, politicians from countries with high power distance scores find it difficult to accept rules and limitations to their power, such as the European Growth and Stability Pact, and countries with low scores for power distance and higher scores for uncertainty avoidance resemble the Anglo-Saxon view, believing in dominant markets and only a regulatory role for government (Bohn/de Jong 2011). Countries with high scores for power distance and low scores for uncertainty avoidance resemble the southern European view, which allows governments to play an important role in the economy (Bohn/de Jong 2011; Steenkamp/Geyskens 2012).

The final explanation for the public's preferences rests on building political cues. Elite communication and ideology play an important role in the formation of public preferences. Some scholars point out that people who are exposed to conflicting views are likely to become more ambivalent and distrustful (Jones 2009; Hooghe/Marks 2005). The ECB has

benefited from the political and economic consensus in favor of an independent central bank, but to maintain this popular acceptance, monetary policy has to be seen as working properly, as only then can the generally weak collective commitment support monetary institutions and policies (Jones 2009). Today's greater uncertainty and the fact that policy-makers struggled to keep pace with events during the crisis created the perception that monetary policy is failing. Since, in case of public opinion, perception often matters more than hard economic data, the perception of inflation has had a greater influence on public opinion than real inflation (Jones 2009; Deroose et al. 2007; Farvaque et al. 2011). The matter of perception also means that, as long as the ECB's monetary policy is generally accepted, validated, and built into action by experts and functional groups, public opinion is likely to remain high. However, the post-crisis dissent in economic opinion about how to deal with the crisis has exposed the public to a large variety of interpretations and has reduced the ECB's sovereignty of interpretation on monetary policy. Ehrmann et al. (2012) find that the loss of trust in the ECB was accompanied by a generalized loss of trust in the European integration project and European institutions.

5.2. Political actors

The second important audience group is political actors. For the length of their terms, politicians in democratic systems turn from being agents to being principals, wielding the powers entrusted to government, and to remain in power, they need to please a majority of voters. Not surprisingly, scholars have shown that governments, especially democratic governments, are more responsive to public opinion than central banks are. Most politicians place considerable weight on employment and growth and so favor lower interest rates. Only the most conservative government would match the central bank's aversion to inflation (Franzese 1999). Unlike the ECB, politicians are more concerned with national factors than with Eurozone factors, and in addition to electoral motives, their preferences for monetary policy may be due to ideology and external pressures.

According to some scholars, the government's monetary preferences are best reflected in its partisan orientation or ideology. Left-leaning governments emphasize unemployment and growth, while right-leaning governments focus more on price stability (Mukherjee/Singer 2007). While in price stability is costless in the long term, deflation is costly in the short term. As inflation declines, unemployment tends to increase and growth tends to slow (Down

2004). Depending on the country's labor and goods market structure, the effect of the short-term trade-off can be substantial (Down 2004).

Politicians' preferences for monetary policy may also be due to electoral motives. To safeguard their power, governments in democratic regimes must take their electorates' preferences into account, and both individual and national economic well-being greatly influences the public's stance on monetary policy. The ability of governments to achieve promised economic outcomes has decreased because of increased internationalization's creating increasing numbers of interdependencies in the world economy and reducing the de-facto control of single governments over important variables of economic development. At the same time, governments are increasingly held responsible for the performance of the public sector and for managing the economy, including job creation, income growth and availability of goods (Scharpf 2011). Scholars have shown that, in line with the economic voting theory, macroeconomic indicators influence incumbents' shares of votes, so poor economic performance leads to a loss of power or at least to big electoral losses (Bernhard et al. 2002; Down 2004; Clark et al. 2013). Following the electoral-motive explanation, political actors should be more concerned with growth and employment and less with inflation.

The third possible explanation for politicians' preferences for monetary policy relates to external constraints. Regardless of their ideology and electoral motives, political actors are constrained by external factors, the most powerful among them the need for state financing. High deficit spending, especially if it is used for welfare spending, which is often considered to be all but untouchable, and high overall debt levels push politicians to prefer growth, as low growth can rapidly make debt ratios unsustainable, even if the nominal amount of debt does not actually increase. What's more, worsening debt ratios could quickly dry up external financing sources. Therefore, governments are incited to intervene in monetary policy, as the higher interest paid on debt and lower demand for government debt that come from restrictive policies reduce the room to maneuver. In fact, they have a strong incentive to manipulate any macroeconomic instrument possible (Clark et al. 2013). In addition, restrictive monetary policy indirectly influences government budgets through the lower seigniorage income and tax income that results from reduced growth (Schwäbe 2013). The higher a government's expenditures and the lower its ability to collect non-inflation-affected taxes, the stronger the temptation for loose monetary policy (Campillo/Miron 1997). This observation is consistent with the explanation that politicians in currency unions are biased toward inflation,

as they know that the costs of their own actions are at least partially shared among all members. This bias becomes stronger as the common costs of an exit outweigh the cost of sharing the burden (Ehrmann/Fratzscher 2011; Grilli et al. 1991).

To sum up, governments have three primary reasons for wanting to intervene in monetary policy to ensure low interest rates: they are tempted to spark growth prior to elections, ideological motives drive them, and they want to reduce the real value of debt and deficit financing. Other arguments that increase politicians' willingness to incur the additional costs of inflation include the desire to improve the national balance of payments via devaluation and to guarantee financial stability in times of crisis (Miller 1998; Barro/Gordon 1983). The stance of political actors toward monetary policy probably depends on a combination of these factors. For example, Ehrmann and Fratzscher (2011) find that politicians' preference for growth increases if national economic performance is low, public trust in the ECB is low, and the government is politically left-oriented. The extent to which governments actually get involved in monetary policy depends partly on the public salience and the complexity of the topic. Whenever public attention is high, such as when unemployment rates are high and growth is sluggish, politicians pay close attention to monetary policy. However, highly complex issues tempers politicians' tendency to intervene, reducing the effect of the topic's salience with regard to monetary policy (Ringquist et al. 2003; Calvert et al. 1989). The loss of this influence in monetary policy has some advantages for politicians, as monetary institutions can persuade legislators of the inevitability of certain policies, help forge coalitions across diverse monetary preferences, and provides a basis for policy bargaining and agreement (Bernhard/Leblang 2002). Central banks can also be scapegoats, as depending on the level to which the banks have public support, putting the blame for weak economic development on the central banks can produce political benefits for the politicians (Hayat/Farvaque 2012; Christensen/Laegreid 2007; Hanretty/Koop 2013).

5.3. Economic actors

The third audience group is economic actors. While their influence might be less obvious than that of the public or political actors, it is strong. Economic actors can influence monetary policy-making both directly and indirectly. They can lobby the general public, political actors and the central bank itself directly, and these efforts may be successful considering the importance of economic well-being displayed by all three groups. Economic actors exercise

indirect influence using a wide array of tools, including influence on their employees. Employees of a company may align their own monetary policy preferences—and votes—with those of their employers, as what is good for the company might also be good for the employee.

Economic actors can be divided into the real economy—that is, the tradable and non-tradable sector—the financial sector, and trade unions and trade associations. In support of their constituencies, trade unions almost always call for lower monetary policy because its positive effects on GDP growth and employment overcompensates trade unions for the lower purchasing power of a weak currency and the possible negative side effects on the prospects of the non-tradable sector. Trade associations usually mirror the preferences of their constituents' sector (Maier et al. 2002). However, Maier et al. (2002) find no evidence that the pre-EMU Bundesbank responded to trade unions' and associations' demands. In contrast, Havrilesky (1995) finds that the Fed does respond to pressures from these interest groups in the US.

The dividing line in terms of monetary policy preferences in the real economy runs along the division between the tradable and the non-tradable sector. The tradable sector usually calls for lower monetary policy than its non-tradable counterpart because of monetary policy's effects on the exchange rate. The effect of exchange rates on income causes a strong currency to increase national purchasing power, thereby raising the relative prices of domestic products, while the substitution effect usually causes consumers to substitute foreign for domestic goods if the currency is weak. Both effects make it harder for producers from countries with strong currencies to compete internationally because they create entry barriers that protect producers in their home markets. Companies' preferences with regard to monetary policy are also influenced by the level of product standardization, their reliance on imported inputs, and the structure of their balance sheets (Frieden 2014; Maier et al. 2002; Steinberg/Walter 2013).

The financial sector has significant interest in monetary policy, as higher inflation rates affect the credit market, with negative consequences for the financial markets' performance and long-run prospects. Inflation drives down the real rate of return on assets and increases credit rationing. As a result, fewer loans are made, the allocation of resources becomes less efficient, and intermediary activity is reduced (Boyd et al. 2011). Boyd et al. show that low to moderate rates of inflation reduce lending to the private sector, banks' balance sheets, liquidity, and

trading volume at the stock market, and these effects stabilize price levels through a coalition of the financial sector and the central banks (Dreher et al. 2010). Even so, the financial sector welcomes loose monetary policy as long as it does not negatively affect price stability. In line with the pre-crisis consensus, the watershed should be just below 2 percent of inflation, an inflation goal that was generally accepted as “sensible” monetary policy. Support for the independent central bank as an institution is generally a given, as there is no clear substitute for price stability for the private sector (Posen 1995).

The influence on monetary policy the financial sector wields is strong (Maier et al. 2002; Havrilesky 1995; Posen 1995). The financial sector uses a wide range of tools to exercise this influence on monetary policy, including public statements, personal interaction, the employment of former central bank officials, and regular consultations (Posen 1995; Maier et al. 2002). Posen (1995) shows that, in OECD and developing countries, the higher the opposition by the financial sector, the lower the inflation and the higher the central banks’ independence. According to Posen, the intensity of the financial sector’s opposition depends on three factors: a financial sector with universal banking, which are more opposed to inflation; a financial sector that is not regulated by the central bank; and a federal system with high party unity. Maier et al. (2002) argue that the influence of the financial sector, which influence they detect with regard to the Bundesbank, can be explained as a factor of commercial and central banks’ basing their decisions to a large degree on similar databases and central banks’ being maximizing agents that try to maximize their reputations vis-à-vis commercial bankers as an intellectually similarly wired and, therefore, a natural audience, which increases the central banks’ incentive to follow commercial banks’ preferences. A central bank that is shielded from political influence might even simplify the financial sector’s access because the financial sector would no longer need to lobby politicians but could approach the central bank directly.

Other scholars confirm the influence of the financial sector. A large financial sector might affect the average level of aversion to inflation directly through people working in the sector and indirectly through the sector’s clout with the media (Scheve 2004; Dreher et al. 2010). In addition, because of similar academic qualifications, staff can easily flow between the financial sector and central banks (Dreher et al. 2010). However, not all scholars accept the explanatory power of the financial opposition argument, arguing that it does not explain much of the cross-national variance in inflation (Campillo/Miron 1997).

6. Methodology

This section will outline the methodology used to assess the dissertation's core hypothesis and outlines the choice of audience groups, variables, and data sources.

Empirically identifying central banks' policy-making autonomy and control by politicians is difficult because of the issue of observational equivalence—that is, principals may have an incentive to conceal whether agents follow their preferences, and agents may appear independent because no sanctions are observable. However, the lack of sanctions may only be the result of an agent's rationally anticipating the principal's preferences, making sanctions unnecessary (Thatcher 2005). The literature identifies a number of possible pressure groups or audience groups that might influence a central bank's decision-making process, including the government, the financial sector, employers, trade unions, academia, and the general public (Gersl 2006; Sturm/De Haan 2001). Three of these broad core groups are the focus of this dissertation, as outlined in the previous chapter: the general public, political actors, and economic actors.

The preferences of the three core groups are assessed using variables that are generally accepted in the literature as indicators of monetary policy preferences. The sources for economic data are the IMF World Economic Outlook Database of October 2014, the EU Commission's Annual macro-economic database, and Eurostat. Only one data source is used for each variable across all countries to ensure comparability. For non-economic data, the dissertation uses a range of web-based resources, including Eurobarometer and governmental websites. The time period assessed covers, when possible, 2007 to 2014. The years 2000-2005 is the time horizon for the unemployment and disposable national income variables to ensure that the data does not include signs of the beginning of the crisis or the climax of the pre-crisis boom.

Several variables are used to identify the general public's monetary policy preferences in each member state of the Eurozone: the unemployment rate, inflation, disposable income, culture, and ideology and elite communication. The country's unemployment and inflation levels and the short- to medium-term outlook for both are used to assess the cost-benefit explanation, which assumes that the public's preferences are shaped by personal and national economic well-being. In line with the relevant literature, the public will support loose monetary policy if *unemployment rates* are rising and/or are above their 2005 levels, while unemployment levels

exactly at the 2005 levels or lower and falling will lead the public to demand no change to current policies, as current policies have steered the variable in an acceptable direction. With regard to *inflation*, the assumption is that the public will support loose monetary policy if inflation is below 2 percent and that it will support tight monetary policy if inflation is above 2 percent, while inflation of exactly 2 percent will cause the public to be indifferent. Politicians, central bankers, and academia have promoted the 2 percent mark as the watershed, and the media has reinforced its importance, so it seems likely that the general public would accept it as “correct” monetary politics. As for the variable of the gross national *disposable income*, the public will demand loose monetary policy if disposable income is lower than its 2005 level or if it has grown at only half or less than half the speed per year than the growth rate between 2000 and 2005. If disposable income is higher than its 2005 levels or is rising at a speed faster than half its previous yearly growth rate, the public will support current policies. The country’s positioning along Hofstede’s Power Distance and Uncertainty Avoidance variables is used to assess the *cultural* explanation for the general public’s preferences in monetary policy. The cultural explanation posits that the economic culture based on history and experience shapes deep-seated preferences such that, the higher a country’s score on the Power Distance dimension, the more emphasis it puts on the supremacy of politics and a dependent central bank, and the higher its score on the Uncertainty Avoidance dimension, the stronger its preference for price stability and an independent central bank. Finally, Eurobarometer data for overall trust in the ECB and for opinion on the European economic and monetary union and the Euro in general are used to assess the explanation based on *ideology and elite communication*. The ideology and elite communication explanation assumes that preferences are shaped by how elites position themselves toward topics and organizations, as when they voice their positions, they influence the public’s preferences. Therefore, the dissertation assesses to what extent the public trusts the ECB and supports the EMU and the Euro and to what extent trust and support levels have been affected by the crisis.

The partisan preferences of each country’s government and its chambers of parliament are assessed using ideology, real GDP growth, and country’s overall debt level, its deficit spending and the share of welfare spending of total spending in order to identify the political actors’ monetary policy preferences. The *ideology* explanation assumes that political ideology dictates political actors’ preferences. In the case of monetary policy, the explanation predicts

that right-leaning actors prioritize price stability, while left-leaning actors focus on employment and growth. If most political entities are right-leaning, the political establishment will support restrictive monetary policy, and if most are left-leaning, it will support loose monetary policy. The electoral motive explanation is assessed by looking at the core macroeconomic variable available, which is *real GDP growth*. According to the electoral motive explanation, politicians need to mirror or at least tacitly support their constituents' preferences in order to remain in power. As the public emphasizes personal and national economic well-being, politicians should be especially concerned with growth. Therefore, if real GDP growth has been half or below half its 2000-2007 average yearly growth rate, political actors will support loose monetary policy in order to kick-start growth and enhance their election chances. However, if real GDP growth has been higher than half of its previous average yearly rate, political actors will demand no change in policies. Finally, the *country's overall debt level, its deficit spending and the share of welfare spending of total spending* are used to evaluate the external constraint explanation, which posits that political actors' preferences are shaped by the economic reality of state finances. If gross debt levels rise above 60 percent of GDP, political actors will demand loose monetary policy in order to reduce the ratio. To reflect the great importance of debt-to-GDP ratios, this variable's weight is doubled if debt levels exceed 100 percent of GDP. While clearly an arbitrary decision, such high ratios are generally unsustainable in the long run, they greatly limit the room for political actors to maneuver, and they signal financial markets and the public that debt levels have gotten out of hand. Similarly, a net deficit spending of above 3 percent or welfare spending that surpasses 65 percent of total spending also leads to pressure for loose monetary policy. However, if most of these psychological and partially legally defined boundaries are not crossed, political actors will support monetary politics in line with their ideological beliefs.

The national economy's composition in terms of financial and non-financial sectors is evaluated to identify economic actors' monetary preferences by assessing the share of both sectors' total gross value added (GVA), as the financial sector's stance on monetary policy depends on the current inflation rate. As explained above, financial actors rely on central banks to safeguard price stability, as inflation hurts their business prospects. Should inflation be above 2 percent, the financial sector should favor restrictive monetary policy, and should inflation be below 2 percent, it will support monetary loosening. The financial sector's influence depends heavily on its size in terms of GVA and to what degree the tradable or non-

tradable sector dominates the non-financial sector. Total GDP of the non-financial sector is broken into GDP of the tradable and non-tradable subsectors, assuming in line with economic theory that the tradable subsector favors loose monetary policy because it is export-oriented, while the non-tradable subsector prefers restrictive policy because it focuses on the domestic market.

To simplify the analysis and to make the indication of monetary policy applicable to the wide range of measures summarized under the term “unconventional monetary policy,” only three values for the variable “monetary policy preference” are used: loose, unchanged, and restrictive. Instead of attaching arbitrary weights to audience groups, the analysis assumes that every core groups carries the same weight in national monetary policy decision-making. The ECB’s monetary policy is assessed between 2007 and 2014 in order to determine whether the policy enacted has been loose or restrictive based on interest rate decisions. The optimal interest rates are calculated according to the Taylor rule, as a control variable in order to compare the average monetary policy preference in the Eurozone countries with the actual decisions made by the ECB, providing an indication of the extent to which the Political Audience Cost Theory might prove helpful in explaining the ECB’s decision-making.

Calculating the control variable, the Taylor rule recommendation for the Eurozone, relies on a version of the rule put forward by Rudebusch (2010), where the central bank’s interest rate should respond to the inflation rate’s deviations from its target rate and to the unemployment rate’s deviations from its natural rate. The core inflation rate is used in line with the research conducted by scholars like Nechio (2011) and is defined as Eurostat’s HICP inflation rate, excluding energy and prices of unprocessed food. The unemployment gap is calculated as the difference between the real unemployment rate and the non-accelerating inflation rate of unemployment (NAIRU), as reported by the EU Commission. As NAIRU rates are available only on an annual basis, I assume that they remain stable across each year and calculate the gap on the basis of annual real unemployment rates. All countries’ Taylor rule recommendations are weighted according to the countries’ individual real GDP. The calculation formula used for the Taylor rule (Rudebusch 2010) is:

Taylor rule = 1 + 1.5 * HICP inflation rate – 1 * Unemployment gap

Finally, case studies—the suspension of the collateral requirements for Greece’s debt on May 3, 2010 the purchase of private and public debt on May 10, 2010 the excessive use of ELA

credits during the heights of Greece's sovereign debt crisis in 2015, the launch of QE in 2015, and the Trichet/Draghi letter to Italy's government in 2011—are used to identify the influences that led to some of the ECB's most controversial decisions. Understanding the ECB decision-making process and the external pressures that may have influenced these particular decisions will shed light on the question concerning the extent to which non-economic variables played a role in these decisions.

This approach has a number of disadvantages. Among the most important of these disadvantages is that, unlike other papers that follow a similar approach, this dissertation does not include academia and international organizations in its analysis. There are three primary reasons for this exclusion. First, while both groups are influential, their influence is less direct and less compelling compared to the three core groups. Both groups have only limited sanction power and only limited direct influence on either the central bank or the opinions of the other three groups. Instead, their power rests primarily on intellectual closeness with central bankers and (perhaps) members of the administration. Second, their preferences are difficult to observe because of the sheer number of individuals, the high level of heterogeneity in the two groups' preferences, and the lack of useful aggregation proxies. Third, these groups' statements can only be correctly and wholly understood if analyzed in context, a deep analysis of sources that is beyond the scope of this dissertation and that would be more appropriate for single-country case studies. The second main disadvantage of my approach is that allowing only for the values of loose, unchanged, or restrictive monetary policy risks oversimplifying monetary policy preferences. However, a more differentiated picture of monetary policy preferences based on more detailed analyses of the audience groups' preferences would not change the results' implications. Without the ECB's voting and discussion records, the core question will remain concerning the extent to which the ECB as a whole acts in line with the preferences of audience groups across the Eurozone. With a high level of this analysis in mind, it is more sensible to focus on the most basic analysis of monetary policy preferences—that is, the question of support for loose or restrictive monetary policy. The third disadvantage of this approach is the weighting of audience opinions and variables in national monetary policy decision-making. Clearly, not all audience groups and variables have the same influence on decisions, but the attachment of weights in any sensible manner would require a profound analysis of national cultures, political systems, and contexts. The assumption here, in line with the reviewed literature, is that the weight of any

audience group varies across time and countries. As the goal of this dissertation is not a detailed analysis of countries' power structures but identifying whether Political Audience Cost Theory can help to explain the ECB's policy-making, I leave a more in-depth analysis to future country-specific research.

A core assumption in the analysis is that national central banks' governors do not participate in the Governing Council *ad personam* but as representatives of their respective national central banks and countries. Therefore, the possibility that governors' voting preferences depend on Europe-wide aggregates is not considered. I focus on the Governing Council and its rules before the rotating voting system came into effect, as most decisions regarding unconventional monetary policy were made under the old rules.

7. Testing the audience hypothesis: how strong is support for the ECB?

This section tests the audience hypothesis to identify the extent to which the national audience groups defined in chapter 4 support loose, unchanged, or restrictive monetary policy. The section also assesses the extent to which institutional setups like central bank independence, and policy goals like price stability are part of national economic culture.

7.1. The general public

The preferences of the general public regarding monetary policy can be examined using three explanations: the cost-benefit explanation, the cultural explanation, and the ideology and elite communication explanation.

7.1.1. Cost-benefit explanation

The cost-benefit explanation is based on the assumption that the general public lends support to a central bank based on the economic costs and benefits of its policies. The variables unemployment, inflation, and available gross national disposable income are used to assess these costs and benefits.

The public assesses monetary policy in light of its own economic well-being. The higher the unemployment level and the higher the short-term forecast for it, the stronger the public support for lax monetary policy. Unemployment increased in the Eurozone countries by an average of 10.4 percent per annum (p.a.) between 2007 and 2014 (Figure 1). It now stands at 11.3 percent across the Eurozone. However, rising unemployment has not been universal, as Germany and Malta reduced their unemployment levels by 5.1 percent p.a. and 1.2 percent p.a., respectively, between 2007 and 2014. All other member states face a strong increase in unemployment. Especially hard hit are the crisis countries: Cyprus with a 39.1 percent p.a. increase, Greece with a 26.9 percent p.a. increase, Spain with a 24.8 percent p.a. increase, and Ireland with a 17.6 percent p.a. increase. Among the non-crisis countries, Lithuania's unemployment rate is also high, with an 18.6 percent p.a. increase. This development contrasts sharply with the pre-crisis years, during which most countries saw their unemployment levels decline. On average, unemployment in the Eurozone decreased by 1.2 percent p.a. before the crisis. As for the near future, a moderate decline in unemployment of 2.6 percent p.a. is forecasted through 2016. All member states except for Austria, Finland, and France will see their unemployment rates fall, although this decrease will not be strong enough to bring down today's high unemployment numbers meaningfully. Therefore, for the

foreseeable future, the general public in most member states should be firmly in favor of very lax monetary policy, hoping to revive job growth.

Figure 1 – Unemployment in the Eurozone (% of total labor force)

Unemployment	Historic		Actual			Growth rate p.a.		
	2007	2014	2000-2007	2007-2014	2014-2016			
Austria	4,9%	5,6%	3,2%	1,8%	3,0%			
Belgium	7,5%	8,5%	1,1%	1,7%	-0,4%			
Cyprus	3,9%	16,1%	-2,3%	39,1%	-3,1%			
Estonia	4,6%	7,4%	-8,6%	7,6%	-4,1%			
Finland	6,9%	8,7%	-3,7%	3,3%	3,1%			
France	8,0%	10,3%	-0,9%	3,6%	0,3%			
Germany	8,5%	5,0%	0,9%	-5,1%	-0,7%			
Greece	8,4%	26,5%	-3,1%	26,9%	-0,9%			
Ireland	4,7%	11,3%	1,2%	17,6%	-7,7%			
Italy	6,1%	12,7%	-4,9%	13,5%	-2,4%			
Latvia	6,1%	10,8%	-7,2%	9,6%	-4,0%			
Lithuania	4,3%	10,7%	-9,2%	18,6%	-6,5%			
Luxembourg	4,2%	6,0%	11,4%	5,4%	-1,1%			
Malta	6,5%	5,9%	-0,4%	-1,2%	-1,1%			
Netherlands	4,2%	7,4%	1,7%	9,5%	-3,6%			
Portugal	9,1%	14%	9,8%	6,9%	-5,7%			
Slovak Republic	11,2%	13,2%	-5,1%	2,2%	-6,8%			
Slovenia	4,9%	9,7%	-3,4%	12,2%	-1,7%			
Spain	8,2%	24,5%	-3,9%	24,8%	-5,4%			
Average	6,4%	11,3%	-1,2%	10,4%	-2,6%			

Source: European Commission annual macro-economic database; own calculations

As for inflation, if inflation is low and no substantial increase is on the horizon, the general public will generally favor loose monetary policy (Figure 2). Since the outbreak of the crisis, inflation has decreased strongly—by almost 9 percent p.a. in the Eurozone—and it stands now at 0.5 percent, far from the ECB’s postulated 2 percent goal. The possibility of deflation was even discussed during summer 2014. While the decrease in inflation has been almost universal in the Eurozone, it has been especially strong in the crisis countries, which are historically the countries with higher inflation rates. The lowest inflation rates were recorded in Greece, where the inflation rate now stands at -0.8 percent, followed by Spain and Portugal, where the inflation rate stands at 0. In the Eurozone only Austria, with an inflation rate of 1.7 percent, has a rate that comes close to the ECB’s goal. However, the forecast for the immediate future shows the potential for a strong increase. By 2016, inflation rates should average 1.5 percent in the Eurozone. While such a strong increase should shift public opinion toward tightening monetary policy, it is unclear whether—and when—the forecast will affect public opinion. The forecast is that inflation will still remain below the 2 percent goal, with

the exception of Lithuania and Estonia, where inflation will increase to 2 percent and 2.1 percent, respectively. Inflation rates have in the recent past regularly surprised forecasters by being lower than expected, driven mostly by a decline in energy prices. Therefore, preferences regarding monetary policy are not likely to change until the public actually sees higher inflation rates.

Figure 2 – Inflation in the Eurozone (% change in average consumer prices)

Inflation	Actual	Forecast	Growth rate p.a.	
	2014	2016	2007-2014	2014-2016
Austria	1,7%	1,7%	-2,6%	-0,8%
Belgium	0,7%	1,3%	-7,4%	24,1%
Cyprus	0,0%	1,3%	-12,5%	42,9%
Estonia	0,8%	2,1%	-11,0%	52,1%
Finland	1,2%	1,7%	-2,8%	12,8%
France	0,7%	1,0%	-7,1%	14,3%
Germany	0,9%	1,5%	-7,6%	22,5%
Greece	-0,8%	1,1%	-16,0%	77,3%
Ireland	0,6%	1,2%	-10,0%	36,8%
Italy	0,1%	1,1%	-11,9%	352,6%
Latvia	0,7%	1,9%	-11,6%	51,6%
Lithuania	0,3%	2,0%	-11,9%	217,6%
Luxembourg	1,1%	1,8%	-7,4%	23,6%
Malta	1,0%	1,4%	5,9%	11,2%
Netherlands	0,5%	1,0%	-8,4%	32,9%
Portugal	0,0%	1,5%	-12,3%	1360,0%
Slovak Republic	0,1%	1,5%	-11,8%	414,2%
Slovenia	0,5%	1,7%	-10,7%	77,6%
Spain	0,0%	0,9%	-12,6%	24,3%
Average	0,5%	1,5%	-8,9%	149,9%

Source: IMF World Economic Outlook Database October 2014; own calculations

As for the final variable, disposable income grew moderately between 2007 and 2014, by 1.1 percent p.a., driven largely by increases in the eastern European member states that still have a large economic catch-up potential (Figure 3). It decreased slightly—by 0.4–2.5 percent p.a.—in Cyprus, Greece, Ireland, Italy, and Spain. Between 2000 and 2007, disposable income grew an average of 7.6 percent p.a., with no member country growing more slowly than 3.1 percent p.a.. The near future offers little comfort, as disposable income is predicted to increase to only 2.2 percent p.a. until 2016, indicating only a slight pick-up in growth rate. In 2014, only Belgium, Germany, Luxembourg, Malta, and Portugal saw income growth that was comparable to their growth rates before the crisis, so the general public should place less emphasis on income growth fuelled by cheap money. Overall, the general public in all but

five member states should favor loose monetary policy in order to revive the growth of disposable income.

Figure 3 – Gross national disposable income per head of population in the Eurozone (in thousand EUR)

Gross national disposable income per head of population					
	Historic	Actual	Growth rate p.a.		
	2007	2014	2000-2007	2007-2014	2014-2016
Austria	33,7	38,2	3,7%	1,6%	1,9%
Belgium	32,5	35,3	3,5%	1,1%	0,8%
Cyprus	21,3	19,3	6,0%	-1,2%	0,9%
Estonia	11,3	14,2	20,2%	3,3%	3,8%
Finland	35,0	36,8	4,4%	0,6%	1,3%
France	30,5	32,1	3,1%	0,6%	1,1%
Germany	30,6	35,5	2,7%	2,0%	2,1%
Greece	20,2	16,2	6,4%	-2,5%	2,4%
Ireland	38,0	33,0	6,9%	-1,7%	2,7%
Italy	27,1	26,1	3,2%	-0,5%	1,0%
Latvia	10,1	12,2	21,6%	2,7%	4,3%
Lithuania	8,8	12,5	18,5%	5,1%	3,7%
Luxembourg	58,4	59,0	3,6%	0,1%	2,3%
Malta	13,5	17,9	3,3%	4,1%	2,7%
Netherlands	36,7	37,9	3,8%	0,4%	1,7%
Portugal	16,2	16,6	3,8%	0,3%	2,4%
Slovak Republic	9,9	13,5	17,5%	4,4%	2,3%
Slovenia	16,9	17,7	6,8%	0,6%	1,5%
Spain	23,2	22,5	5,8%	-0,4%	2,4%
Average	25,0	26,1	7,6%	1,1%	2,2%

Source: European Commission annual macro-economic database; own calculations

To sum up, based on the cost-benefit explanation, the general public should favor lax monetary policy (Figure 4). All of the three variables—unemployment, inflation and disposable income—currently point to a preference for loose monetary policy, as in no country in the Eurozone should the general public currently favor an unchanged or an even more restrictive monetary policy. In a number of countries, including Belgium, Germany, Luxembourg, Malta, and Portugal, a minimum of one of the variables would warrant an unchanged policy; only in Germany and Malta would two variables, unemployment and disposable income, suggest an unchanged monetary policy. However, it is clear that a tightening of monetary policy is currently not in the interests of most of the Eurozone member countries' general publics. Across the Eurozone, unemployment is high, inflation is low, and disposable income is growing at a disappointing speed. While the forecasts for unemployment and disposable income indicate little likelihood of a reversal in these preferences, inflation might change the publics' preferences in the medium term because the predicted average

percent p.a. increase in inflation is strong and because a large part of the current decrease in inflation can be attributed to low energy prices. While a reversal is always possible and is, in fact, likely as a result, until an actual increase in inflation rates is recorded, the forecast is not likely to have a significant impact on public opinion or to force a more restrictive monetary policy in the near future.

Figure 4 – Overview of cost-benefit explanation

(Preferences: green = loose monetary policy, yellow = unchanged monetary policy, red = restrictive monetary policy)



Source: own calculations

7.1.2. Cultural explanation

The second possible explanation for public monetary preferences is the cultural explanation, which suggests that different economic cultures have developed in different countries, so monetary policy preferences depend not only on today’s economic cost-benefit calculations but also on deep-seated cultural preferences. In line with the majority of the literature, I use Hofstede’s Power Distance and Uncertainty Avoidance variables to identify these preferences. According to Hofstede, a high score on Power Distance indicates a preference for supremacy of politics and, therefore, a dependent central bank. In a country with a high Power Distance score, political actors are not expected to respect the de-jure independence of a central bank but, according to theory, to define policies in all possible policy fields and to have institutions

like the central bank execute these policies. A high score on Uncertainty Avoidance indicates a preference for price stability and central bank independence. Because Cyprus has not yet been classified along Hofstede's dimensions, I assume a neutral position for Cyprus with regard to both variables to simplify the analysis. The rest of the Eurozone is deeply divided in terms of Power Distance (Figure 5), with half of the member states favoring a dependent central bank under politicians' control, and the other half favoring an independent central bank. Nevertheless, while countries are split almost evenly almost half of the member states have Power Distance scores close to 50 (out of 100), indicating that Power Distance is not strongly pronounced in either direction. Outliers are only Austria, with a score of 11 and Slovakia with a score of 100. In line with expectations, all southern European states score above 50 on the Power Distance dimension, indicating their preference for a strong role for the state, but there is rift among the eastern European member states: While the Baltic states have lower scores on Power Distance, the new member states, Slovakia and Slovenia, score high, with 100 and 71, respectively. The picture with regard to price stability is a lot clearer, as most of the countries in the Eurozone score high on Uncertainty Avoidance, indicating a strong preference for price stability. The only country that is not in line with this preference is Ireland. This result shows that a number of countries neither resemble the textbook Anglo-Saxon tradition, which has a low Power Distance score and a high Uncertainty Avoidance score, nor the textbook southern European tradition, which has a high Power Distance score and low Uncertainty Avoidance score. Instead, some EMU countries, such as Slovenia, score high across both dimensions. One possible explanation for this unexpected result is that high scores on the Uncertainty Avoidance dimension indicate a preference for price stability rather than a true declaration of belief in central bank independence. The fact that a number of countries with historically high inflation rates have high scores on both dimensions supports this explanation. Overall, it can be concluded that, while the primary goal of price stability rests well within the member states' economic cultures, the idea that the central bank should be independent, rather than directed by politicians, has no cultural root in more than half of all member states. This result is important for two reasons: First, it suggests that the inflation culture of the southern member states has changed, and today price stability is the accepted goal. This change can be at least partly attributed to the common experience in the EMU. The acceptance of price stability as a goal shows that inflation remains a closely watched and important variable with regard to the cost-benefit calculation. At the same time, the ECB can likely derive legitimacy from successfully guaranteeing price stability in the Eurozone.

Second, despite fifteen years of common experience with price stability and central bank independence, beliefs regarding central banks’ organizational status have changed less than those about inflation. In a large number of founding member states, beliefs that favor a dependent central bank and the supremacy of politics have persisted, despite living with an independent central bank, the idea has not been incorporated into their economic culture. From a practical point of view, then, whatever the de-jure position of the central bank, politicians are unlikely to respect the institution’s independence fully.

Figure 5 – EMU member countries’ economic cultures (scale: 0-100)

	Hofstede Power Distance	Hofstede Uncertainty Avoidance	Independent central bank	Price stability
Austria	11	70	↑	↑
Belgium	65	94	↓	↑
Cyprus	-	-	↔	↔
Estonia	40	60	↑	↑
Finland	33	59	↑	↑
France	68	86	↓	↑
Germany	35	65	↑	↑
Greece	60	100	↓	↑
Ireland	28	35	↑	↓
Italy	50	75	↔	↑
Latvia	44	63	↑	↑
Lithuania	42	65	↑	↑
Luxembourg	40	70	↑	↑
Malta	56	96	↓	↑
Netherlands	38	53	↑	↑
Portugal	63	99	↓	↑
Slovakia	100	51	↓	↑
Slovenia	71	88	↓	↑
Spain	57	86	↓	↑
Average	50	73	↓	↑

Source: Hofstede, own calculations

7.1.3. Ideology and elite communication explanation

The final explanation for the public’s monetary policy preferences is ideology and elite communication. Institutions need popular support to survive and guard their independence, so they depend on widespread consensus regarding their success and merits—or at least the perception of their success and merits. A breakdown in the interpretation of and conflict about the “right” monetary policy may seriously damage the public’s trust and support for an institution like the ECB.

The two variables examined for the ideology and elite communication explanation are the degree of trust in the ECB and the degree of approval of the EMU and the Euro. Trust in the ECB fell sharply during the crisis (Figure 6) and decreased in all member states except Lithuania, Latvia, and Malta. Trust, which fell by an average of 3 percent p.a. across the

whole Eurozone, now stands at 39 percent. At the same time, distrust in the ECB has grown by 2 percent p.a. to 23 percent. Almost 40 percent of all participants in the Eurobarometer poll did not know whether to trust the ECB or not. While trust has fallen to a similar degree across most member states, the increase in distrust has differed: while distrust has decreased in some countries, including such unlikely candidates as Spain, it has skyrocketed in Belgium, Cyprus, and Greece by 11–44 percent p.a. Although the expectation may have been that all crisis countries would have a strong increase in distrust, countries like Spain (-9% p.a.) and Portugal (-8% p.a.) have had the greatest yearly decrease in distrust in the Eurozone. One possible explanation is that, despite some political voices especially on the left of the political spectrum, many citizens in both countries have realized that the ECB did what it could to ease their economic pain—or at least did nothing to increase it.

Figure 6 – Trust in the ECB (% of respondents in 2014, % growth rate p.a. 2007- 2014)

Actual		Austria	Belgium	Cyprus	Estonia	Finland	France	Germany	Greece	Ireland	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Portugal	Slovak Republic	Slovenia	Spain	Average
Trust in ECB	Tend to trust; %	46%	44%	24%	47%	61%	29%	37%	20%	31%	25%	40%	52%	47%	53%	56%	33%	45%	32%	17%	39%
	Tend not to trust; %	44%	43%	65%	32%	13%	23%	13%	5%	17%	24%	26%	25%	20%	31%	15%	11%	13%	12%	11%	23%
Growth rate p.a.		Austria	Belgium	Cyprus	Estonia	Finland	France	Germany	Greece	Ireland	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Portugal	Slovak Republic	Slovenia	Spain	Average
Trust in ECB	Tend to trust; %	-2%	-4%	-7%	-1%	-1%	-4%	-5%	-8%	-5%	-5%	1%	1%	-3%	0%	-3%	-4%	-2%	-6%	-7%	-3%
	Tend not to trust; %	6%	11%	26%	-2%	1%	-1%	-4%	44%	-6%	-4%	-6%	-5%	-2%	-1%	0%	-8%	-5%	-3%	-9%	2%

Source: European Commission Eurobarometer; own calculations

As for the second variable, it is clear that the EMU and the Euro are still enjoying strong approval rates among the European public and that the crisis has done little to change that (Figure 7). An average of 70 percent of the European public are in favor of the EMU and the Euro, and only 25 percent are against them. Between 2007 and 2014, support grew by 1 percent p.a., and disapproval fell by the same amount. Only in Cyprus are approval rates comparatively low (52%) and disapproval rates comparatively high (44%). Analysis of the annual change in sentiment in the member states makes clear that it is driven mainly by Estonia and Latvia, where disapproval rates have decreased by up to 7 percent p.a. and approval rates have increased by up to 6 percent p.a.

Figure 7 – Support for the EMU and the Euro (% of respondents in 2014, % growth rate p.a. 2011- 2014)

Actual		Austria	Belgium	Cyprus	Estonia	Finland	France	Germany	Greece	Ireland	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Portugal	Slovak Republic	Slovenia	Spain	Average
A European economic and monetary union	Against; %	27%	21%	44%	12%	20%	27%	22%	32%	17%	31%	22%	36%	17%	20%	21%	35%	19%	18%	31%	25%
with one single currency, the euro	For; %	68%	77%	52%	82%	78%	68%	75%	66%	75%	54%	71%	57%	79%	75%	76%	59%	77%	77%	63%	70%
Growth rate p.a.		Austria	Belgium	Cyprus	Estonia	Finland	France	Germany	Greece	Ireland	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Portugal	Slovak Republic	Slovenia	Spain	Average
A European economic and monetary union	Against; %	-3%	1%	1%	-7%	-2%	-1%	-3%	2%	3%	1%	-6%	-2%	0%	-3%	-2%	0%	1%	0%	1%	-1%
with one single currency, the euro	For; %	2%	-1%	-1%	3%	0%	0%	2%	0%	0%	-2%	6%	3%	0%	2%	1%	2%	-1%	-1%	0%	1%

Source: European Commission Eurobarometer; own calculations

To sum up, the ideology and elite communication explanation makes clear that, while the popularity of the EMU and the Euro increased during the crisis, the opposite holds true for the ECB as an institution. While the EMU and the Euro enjoy strong support ratings that average 70 percent across the Eurozone, only 39 percent of the European public say they trust the ECB. In Cyprus more people distrust than trust the ECB, but this is not only a crisis-country phenomenon, as the ECB is losing trust across the whole of Europe. More than 60 percent of all participants in the European Commission Eurobarometer poll either distrust the ECB or do not know whether they trust it or not. For an institution whose authority and independence rests to a considerable degree on trust, these results are daunting.

7.1.4. Conclusion

To conclude, the general public as an audience group shows a clear preference for prolonged lax monetary policy across all countries. While the general public in all member states might prefer tighter monetary policy in the medium term, inflation, high unemployment rates, and low disposable income growth demand continued monetary stimulus. Most countries' public opinion indicates favoring the EMU and the Euro in general but distrusting or at least not trusting the ECB as an institution. This observation holds true across the whole Eurozone, irrespective of economic culture and current economic distress. This general mistrust is even more worrisome considering that more than half of the member countries' publics favor political supremacy over a de-facto independent central bank. While it is difficult to pinpoint the reason for this mistrust, as the question in the European Commission Eurobarometer poll is not very specific, not only has distrust risen and trust fallen but the number of people who had no opinion has risen. One possible explanation for this development is the very strong dissent among academics, central bankers, and politicians concerning how to respond to the crisis. Therefore, along with the breakdown of the traditional laws and rights and wrongs of monetary policy-making, it has become increasingly difficult for the general public to judge monetary policy.

7.2. Political actors

Any or all of three explanations may explain the monetary policy stance of political audience groups: ideology, electoral motives, and external constraints.

7.2.1. Ideology

As detailed in chapter 4 and in line with the literature, left-leaning governments put a much greater emphasis on employment and growth than on price stability. Governments on the right focus more on price stability. The ideological positioning of each member state’s parliament and its government can help to identify the positioning of each member state’s political actors.

Most of the governments in the Eurozone are today either grand coalitions or left-leaning governments (Figure 8), but right-leaning parties dominate the chambers of parliament. Overall, the political establishment in most of the Eurozone countries in 2014 leaned right. Therefore, according to the literature, the political establishment in most of these countries should favor tighter monetary policy, especially considering the predicted 150 percent p.a. increase in inflation until 2016. In addition, with the exception of Italy, all other crisis states—that is, Spain, Portugal, Ireland, and Greece—are currently governed by conservative governments. In most of these countries conservative governments took over from left-leaning ones only after the crisis erupted. These changes of governments emphasize that right-leaning governments are more trusted to be able to overcome economic turmoil, trimming state finances, and safeguarding price stability and that the electorate cares a great deal about economic well-being. A party that presides over a downturn will be voted out of office.

Figure 8 – Partisanship of Government and Parliament

(Preferences: 0 = grand coalition, 1 = right-leaning, 2 = left-leaning)

Actual		Austria	Belgium	Cyprus	Estonia	Finland	France	Germany	Greece	Ireland	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Portugal	Slovak Republic	Slovenia	Spain	Average	
Partisanship	Government	0	1	1	0	0	2	0	0	0	2	1	2	2	2	2	0	1	2	2	1	0/2
	Parliament (1. Chamber)	1	1	2	1	1	2	2	1	1	2	1	2	2	2	2	1	1	2	1	1	1
	Parliament (2. Chamber)	1	1	-	-	-	2	2	-	1	2	-	-	-	-	1	-	-	-	-	1	1
	Overall	1	1	0	1	1	2	2	1	1	2	1	2	2	2	2	1	1	2	0	1	1

Definition: 1 = Right, 2 = Left, 0 = Grand Coalition

Source: Nordsieck; Norwegian Social Science Data Services; own calculations

In addition, across the whole Euroarea the political establishment has been leaning toward the right for the 62 percent of the years since 2007 and toward the left for only approximately two years since 2007 (Figure 9).

Figure 9 – Partisanship of Government and Parliament between 2007 and 2014

Historical (2007-2014)		Austria	Belgium	Cyprus	Estonia	Finland	France	Germany	Greece	Ireland	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Portugal	Slovak Republic	Slovenia	Spain	Average
Partisanship	Right; %	60%	100%	0%	50%	50%	63%	38%	63%	100%	63%	100%	50%	88%	75%	100%	50%	63%	38%	38%	62%
	Left; %	0%	0%	75%	0%	50%	37%	25%	38%	0%	38%	0%	50%	0%	25%	0%	50%	38%	38%	63%	28%

Anomalies caused by rounding up/down, remaining percentage grand coalition

Source: own calculations

Therefore, from an ideological point of view, the political actors in most countries should favor a strong focus on price stability right now and for most of the past eight years. While price stability concerns are currently limited, inflation forecasts should have actors in most countries favoring gradual monetary tightening.

7.2.2. Electoral motives

The second possible explanation for political actors' monetary policy preferences refers to electoral motives, that is, that politicians are forced to take their voters preferences into account in order to stay in power. According to the cost-benefit explanation, voters care about personal and national economic well-being; however, they rarely have the expert knowledge to understand the state of an economy. Therefore, the most basic but meaningful variable for electoral motives is real GDP growth per capita (in current USD).

The results of the GDP growth per capita analysis are clear (Figure 10). Average GDP per capita grew by only 1 percent p.a. between 2007 and 2014 across the Eurozone. While growth was stronger in some countries, most of the growth stemmed from the eastern European member states. In the eastern European member states, strong growth rates are not surprising since their economies are less developed than those of other countries. Among the older member states, only Germany, Austria, and Malta had growth rates above 1.5 percent p.a. In the crisis countries of Cyprus, Greece, Ireland, and Italy, GDP per capita declined between 2007 and 2014. The pre-crisis growth rates underscore the politicians' problem. Before the crisis, between 2000 and 2007, GDP per capita grew by an average of 6.5 percent p.a. across the Eurozone, with the eastern European member states reaching growth rates above 10 percent p.a. Keeping in mind the electoral motive explanation, politicians in most Eurozone countries should favor loose monetary policy in order to kick-start growth again and increase their electoral appeal to voters. The fate of left-leaning governments in crisis countries makes clear the need to shore up the economy to protect re-election chances. Only in Germany, Malta, Portugal, and Spain were GDP growth rates in 2014 comparable to those before the crisis.

Figure 10 – Real GDP per capita (PPP, in current USD)

Real GDP per capita (PPP)	Actual	Growth rate p.a.	
	2014	2000-2007	2007-2014
Austria	45411,3	4,3%	1,7%
Belgium	41740,7	3,9%	1,1%
Cyprus	27985,7	4,6%	-1,3%
Estonia	26555,5	13,6%	1,0%
Finland	40455,2	5,6%	0,3%
France	40445,4	3,6%	1,3%
Germany	44741,0	3,9%	2,5%
Greece	25752,5	6,9%	-1,7%
Ireland	46769,5	5,6%	-0,2%
Italy	34455,3	3,4%	-0,1%
Latvia	23903,9	16,5%	1,7%
Lithuania	26700,1	15,2%	3,3%
Luxembourg	92506,6	5,5%	0,1%
Malta	31716,9	3,3%	2,7%
Netherlands	47365,3	4,1%	1,0%
Portugal	26306,5	3,0%	0,8%
Slovak Republik	27664,6	10,0%	3,3%
Slovenia	29358,6	7,3%	0,4%
Spain	32975,4	4,2%	0,4%
Average	37516,3	6,5%	1,0%

Source: IMF World Economic Outlook Database October 2014; own calculations

7.2.3. External constraints

The final explanation for politicians' monetary preferences is external constraints. The explanation argues that constraints like the need for state financing bind the hands of political actors and push them toward a preference for high rates of growth. The indicators used here for external constraints are overall debt levels, deficit spending, and share of welfare spending in overall spending.

Debt levels in the Eurozone have increased significantly since 2007 (Figure 11), standing today at 82 percent, which is considerably higher than the 60 percent defined in the Maastricht Treaty. In fact, only six member states currently satisfy the Maastricht criteria, and six have debt levels that exceed 100 percent of GDP. While it is no surprise that all of the crisis countries are among these last six, with the exception of Luxembourg, all founding member states have debt levels that do not satisfy the Maastricht criteria. Even countries that fared comparatively well during the crisis have debt levels that are slowly approaching

unsustainable levels, in part because of the problem of budget balancing that is common among many countries. While the worsening debt ratios can largely be attributed to the crisis, especially the need to bail out the financial sector while shoring up aggregate demand, the base from which most Eurozone member states started was already high. Average gross debt across the Eurozone stood at 47 percent in 2007 and grew by an average of 15.6 percent p.a. between 2007 and 2014, with Ireland in the lead with an increase of 46.1 percent p.a. The high growth rates in the Baltic states and Luxembourg, countries that are among the last countries that still satisfy the Maastricht criteria, indicate that they will soon have debt problems similar to those of the other member states. While the increase in debt has slowed since 2012, at 2.9 percent p.a., it remains high. Since 2012, only three member states have reduced their gross debt levels, and only Germany has managed a yearly debt-reduction rate above 2 percent.

Considering the high growth rates, the large majority of Eurozone countries should favor loose monetary policy to increase GDP and reduce debt ratios, as a slowing GDP could quickly bring a number of member states into a position where further debt will be difficult to obtain and only at an interest rate premium.

Figure 11 – Gross debt (% of GDP)

	Gross debt (% of GDP)		
	Actual 2014	Growth rate p.a.	
		2007-2014	2012-2014
Austria	80%	4,1%	2,5%
Belgium	102%	2,7%	0,3%
Cyprus	117%	12,5%	11,8%
Estonia	10%	22,4%	1,6%
Finland	58%	8,9%	3,9%
France	95%	6,3%	2,4%
Germany	76%	2,0%	-2,3%
Greece	174%	7,8%	3,6%
Ireland	112%	46,1%	0,3%
Italy	137%	4,0%	2,6%
Latvia	36%	45,2%	-0,4%
Lithuania	40%	17,2%	-0,8%
Luxembourg	24%	32,8%	3,8%
Malta	72%	2,3%	0,7%
Netherlands	69%	7,9%	1,5%
Portugal	131%	11,5%	1,9%
Slovak Republic	56%	11,2%	1,9%
Slovenia	77%	30,1%	15,0%
Spain	99%	21,5%	4,9%
Average	82%	15,6%	2,9%

Source: IMF World Economic Outlook Database October 2014; own calculations

The picture of the Eurozone countries' governments' primary deficit or surplus is similar to that of overall debt (Figure 12). Since 2007, these governments' primary net deficit has averaged 1.8 percent of GDP. Only the governments of Belgium, Germany, Italy, and Luxembourg achieved an average primary net surplus between 2007 and 2014. Since 2012, primary net deficits have fallen to an average of 1.1 percent of GDP, and today's primary net deficits stand at 0.5 percent. At least in part because of harsh austerity measures, countries like Greece and Portugal now have a primary net surplus, but other countries have seen their surpluses shrink or deficits grow over the past two years. In fact, ten of nineteen countries are still running a deficit, with Spain, France, and Finland running deficits of up to 2.7 percent of GDP. The risk of political pressure in favor of loose monetary policy will quickly resurface should GDP growth rates dip again, but as long as the deficits stay well below the 3 percent mark, the pressure for increasingly loose monetary policy is likely to be subdued. Only when deficits are above 3 percent of GDP is public pressure on politicians likely to increase and

motivate them to look to monetary policy as the least painful way to get the deficit back into an acceptable range.

Figure 12 – General government primary net lending/borrowing (% of GDP)

<u>General government primary net lending/borrowing (% of GDP)</u>			
	<u>Actual</u>	<u>Average Deficit/Surplus</u>	
	2014	2007-2014	2012-2014
Austria	-0,9%	-0,4%	-0,2%
Belgium	0,3%	0,3%	-0,1%
Cyprus	-1,0%	-1,1%	-2,1%
Estonia	-0,3%	-0,4%	-0,3%
Finland	-2,5%	-0,8%	-2,4%
France	-2,3%	-2,4%	-2,3%
Germany	1,5%	1,1%	1,7%
Greece	1,5%	-3,0%	0,3%
Ireland	-0,3%	-7,8%	-2,6%
Italy	1,9%	1,4%	2,1%
Latvia	-0,8%	-3,4%	-0,6%
Lithuania	-0,3%	-2,9%	-0,7%
Luxembourg	0,2%	0,3%	0,0%
Malta	0,4%	-0,1%	0,1%
Netherlands	-1,4%	-1,4%	-1,8%
Portugal	0,3%	-2,5%	-1,0%
Slovak Republic	-1,2%	-3,0%	-1,7%
Slovenia	-1,6%	-3,2%	-4,9%
Spain	-2,7%	-5,1%	-5,0%
Average	-0,5%	-1,8%	-1,1%

Source: IMF World Economic Outlook Database October 2014; own calculations

Finally, the welfare spending indicator shows that all member states spend a high share of total government expenditures on public welfare as defined by the European Commission (Figure 13), ranging from 54.5 percent in Latvia to 69 percent in the Netherlands and averaging 64.5 percent. The share increased by 0.3 percent p.a. between 2007 and 2014, despite—or, more accurately, because of—the global economic crisis. Growth in welfare spending as a share of total spending was especially strong in two of the countries hardest hit by the crisis: average welfare spending increased by 1.8 percent p.a. in Cyprus and 1.2 percent p.a. in Greece. While such increases can be viewed as the system’s natural response to a larger number of people needing to rely on support during an economic crisis, it increases the burden on already strained budgets. Since 2012, the average welfare spending has stopped

increasing because of welfare cuts in eight member states. The high share of welfare spending and the fact that its share of total spending continued to increase between 2007 and 2012 suggest that politicians' hands are tied to the extent that more than half of their general expenditures are difficult to reduce. As its recipients feel cuts in welfare spending directly, and welfare spending is generally seen as a "civilizational" achievement in many European states, political resistance is usually high. While this observation holds true across the political spectrum, left-leaning parties and their working class constituencies in particular struggle with this issue. As a result, political actors in member states with welfare spending above the average should favor loose monetary policy in order to support growth and shift adjustment costs to the future without spending political capital.

Figure 13 – Welfare spending (% of total government expenditure)

<u>Welfare spending (% of total government expenditure)</u>			
	<u>Actual</u>	<u>Growth rate p.a.</u>	
	2014	2007-2014	2012-2014
Austria	67,2%	0,4%	0,3%
Belgium	65,4%	0,4%	0,7%
Cyprus	58,6%	1,8%	1,7%
Estonia	64,4%	-0,8%	-0,3%
Finland	67,3%	0,3%	0,4%
France	67,7%	0,1%	0,0%
Germany	68,2%	0,0%	0,3%
Greece	65,1%	1,2%	0,5%
Ireland	67,1%	-0,1%	0,0%
Italy	66,9%	0,3%	0,7%
Latvia	54,5%	0,7%	-0,7%
Lithuania	67,1%	0,3%	-0,5%
Luxembourg	68,7%	-0,1%	0,1%
Malta	58,9%	0,8%	-0,7%
Netherlands	69,0%	0,9%	0,6%
Portugal	60,6%	-0,2%	-0,2%
Slovak Republic	60,3%	0,0%	-0,9%
Slovenia	63,2%	-0,5%	-1,6%
Spain	65,7%	0,1%	-0,5%
Average	64,5%	0,3%	0,0%

Source: European Commission Annual macro-economic database; own calculations

To sum up, following the external constraint explanation, political actors in almost half of the member states should favor loose monetary policy (Figure 14). In most countries, political

actors face high and still rising debt levels coupled with a primary net deficit. While this combination has reduced the political actors’ room to maneuver by increasing the cost of funding and risking access to funding altogether, the high level of welfare spending and the apparent difficulty in reducing it push an increasing number of political actors toward a preference for loose monetary policy. Politicians can simply no longer risk further deterioration of growth by tightening monetary policy.

Figure 14 – Overview of external constraints explanation

	Gross debt	General government primary net lending/borrowing	Welfare spending	Overall
Austria	↑	↓	↑	↑
Belgium	↑↑	↓	↓	↓
Cyprus	↑↑	↓	↓	↓
Estonia	↓	↓	↓	↓
Finland	↓	↓	↑	↓
France	↑	↓	↑	↑
Germany	↑	↓	↑	↑
Greece	↑↑	↓	↑	↑
Ireland	↑↑	↓	↑	↑
Italy	↑↑	↓	↑	↑
Latvia	↓	↓	↓	↓
Lithuania	↓	↓	↑	↓
Luxembourg	↓	↓	↑	↓
Malta	↑	↓	↓	↓
Netherlands	↑	↓	↑	↑
Portugal	↑↑	↓	↓	↓
Slovak Republic	↓	↓	↓	↓
Slovenia	↑	↓	↓	↓
Spain	↑	↑	↑	↑
Average	↑	↓	↑	↓

Source: own calculations

7.2.4. Conclusion

Political actors in most Eurozone member countries should support the ECB’s current loose monetary policy. While most of the political establishment is right-leaning and should, therefore, support restrictive monetary policy in light of predicted increases in inflation, electoral motives and external constraints should override ideological preferences. Politicians across the Eurozone are struggling with low per capita GDP growth’s undermining their chances of electoral success, and they are facing high gross debt levels, small primary net deficits, and welfare states, all of which resist change. Their room to maneuver is increasingly restricted as financing becomes more difficult and expensive. Under these conditions, it is hard to imagine that governments, regardless of their ideological orientation would endanger

growth by returning to orthodox monetary policy-making. Instead, politicians will try to shift the costs of adjustment into the future and rely on cheap central bank money to guarantee state financing. This approach seems even more likely considering the fate of Greece's two traditional political parties; after seven years of austerity and internal adjustments, both parties—the conservatives and the social democrats—are shadows of their former selves. In addition to the argument for choosing the politically less painful way, from an economic point of view, low GDP growth and high debt and deficit levels also speak for continued loose monetary policy. A switch of a majority of member states to austerity in a bid to balance budgets and reduce debt would be likely to reduce growth significantly, as private actors would not be able to replace state-generated demand quickly, and governments would be forced to initiate even more ambitious austerity programs.

7.3. Economic actors

Economic actors' preferences for monetary policy are divided into those of the financial and the non-financial sectors and, within the non-financial sector, those of the tradable and the non-tradable sectors. It is likely that members of both the financial and the tradable sector will generally favor loose monetary policy. Since the financial sector values price stability, as rising inflation damages its business model, it will support monetary policy that leads to an inflation rate of about 2 percent, while the tradable sector tends to profit from low interest rates' effect on the exchange rate, so the cheaper one's own currency, the better.

7.3.1. Financial sector vs. non-financial sector

The non-financial sector is dominant in all of the Eurozone countries (Figure 15). Since no data is available for Ireland and Finland, the following calculations exclude Ireland and Finland. In addition, data for Portugal is available only until 2011. The non-financial sector made up an average of 94 percent of total GVA in 2013, which has grown during the crisis by an average of 0.3 percent, possibly in reaction to the turbulence that hit the financial sector. Therefore, because of its limited growth and small size in terms of GVA, the financial sector should have only limited influence on monetary policy. The financial sector's influence depends on whether the non-financial sector is dominated by the tradable or the non-tradable sector, as if neither is dominant, the financial sector can tip the scale. Because of the currently low inflation rates in all states, the financial sector currently supports loose monetary policy.

Figure 15 – Non-financial sector (% of GVA)

<u>Non-financial sector (% of GVA)</u>		
	<u>Actual</u>	<u>Growth</u>
	<u>2013</u>	<u>2007-2013</u>
Austria	95%	0,6%
Belgium	94%	-0,9%
Cyprus	91%	-2,2%
Estonia	97%	1,5%
Finland	-	-
France	96%	-0,6%
Germany	96%	0,5%
Greece	95%	-0,3%
Ireland	-	-
Italy	95%	0,2%
Latvia	96%	1,1%
Lithuania	98%	1,4%
Luxembourg	73%	4,9%
Malta	92%	-0,3%
Netherlands	92%	-2,9%
Portugal	93%	0,7%
Slovak Republic	96%	-0,2%
Slovenia	96%	0,7%
<u>Spain</u>	<u>97%</u>	<u>1,5%</u>
Average	94%	0,3%

Data for Portugal available only until 2011

Source: Eurostat; own calculations

7.3.2. Tradable sector vs. non-tradable sector

The economies of ten of nineteen countries in the Eurozone are dominated by the tradable sector (Figure 16). Since no data is available for Ireland and Finland, the following calculations exclude these countries. Of the seventeen remaining countries, only in Austria and Germany should the financial sector be able to tip the scales in terms of monetary policy, as the split between the tradable and the non-tradable part of their economies is comparatively even. The financial sector should have no direct influence in any other EMU country. The degree to which economies rely on the non-financial tradable sector range from 27.4 percent of GDP in Greece to up to 89.8 percent of GDP in Malta. Across the Eurozone, an average of 59.3 percent of GDP was non-financial exports in 2013, a rate that has grown by an average of 2.6 percent since 2007. Among the countries with the highest growth rates are the crisis countries of Greece, Portugal, and Spain. As all three of these countries' non-financial exports

started from a low base, the growth in the tradable sector points to an increase in competitiveness since the start of the austerity programs. To sum up, the economy in most of the Eurozone countries should favor loose monetary policy in order to boost exports through the exchange-rate mechanism.

Figure 16 – Non-financial exports (% of GDP)

<u>Non-financial exports (% of GDP)</u>		
	<u>Actual</u>	<u>Growth rate p.a.</u>
	<u>2013</u>	<u>2007-2013</u>
Austria	55,7%	-0,3%
Belgium	84,9%	0,9%
Cyprus	41,8%	-0,4%
Estonia	41,8%	4,0%
Finland	NA	NA
France	29,3%	1,3%
Germany	50,5%	1,1%
Greece	27,4%	3,9%
Ireland	NA	NA
Italy	30,1%	0,8%
Latvia	57,8%	6,1%
Lithuania	86,8%	8,8%
Luxembourg	85,2%	3,2%
Malta	89,8%	1,0%
Netherlands	83,6%	2,5%
Portugal	36,2%	3,6%
Slovak Republic	96,9%	1,8%
Slovenia	77,3%	1,6%
<u>Spain</u>	<u>33,5%</u>	<u>3,7%</u>
Average	59,3%	2,6%

Source: Eurostat; own calculations

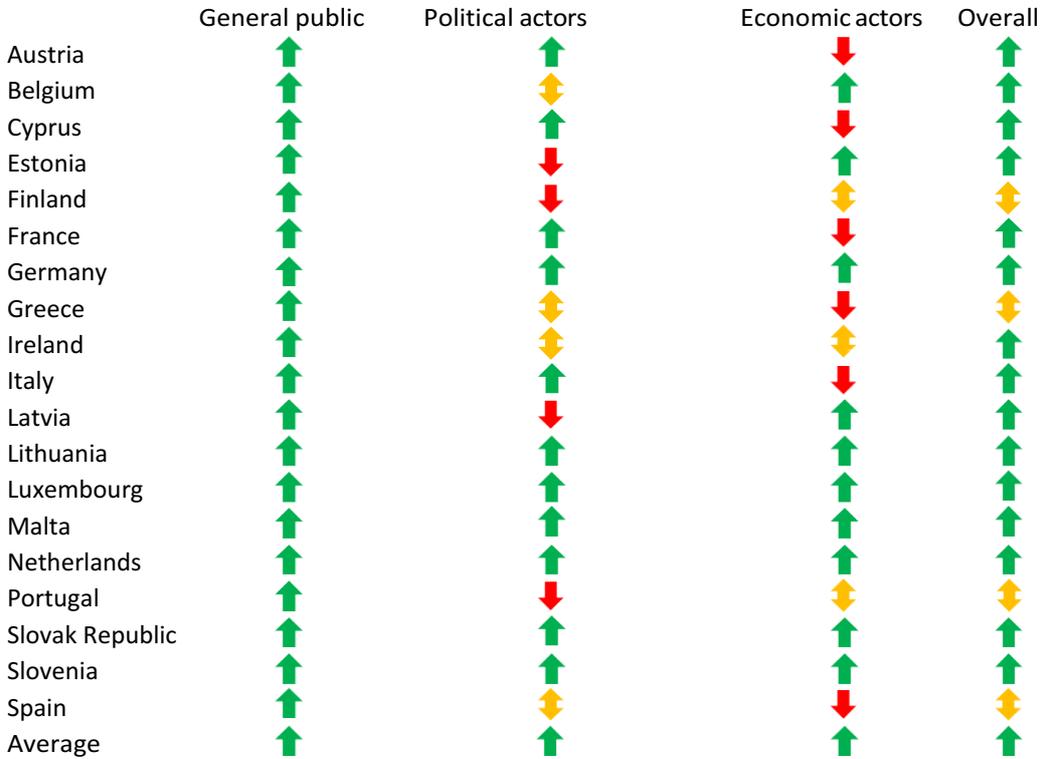
7.3.3. Conclusion

To conclude, the composition of the economy in most of the Eurozone member states supports a preference for loose monetary policy. While all countries have comparatively small financial sectors in terms of share of GVA, most of them export more than half of their non-financial GDP. As a result, economic actors are likely to push for loose monetary policy, as they can expect to benefit from favorable exchange rate effects.

7.4. How strong is the support for the ECB in the Eurozone?

From an economic point of view, national central banks can rely on the support of a majority of audience groups in almost all Eurozone member states for the execution of loose monetary policy in the Eurozone (Figure 17). The general publics especially favor loose monetary policy. Because of their low unemployment levels and high growth in disposable income, only in Germany and Malta could the general publics quickly change their preference if inflation rates rise. Political actors in most of the countries also support loose monetary policy, a situation that is unlikely to change in the near future. While most of the Eurozone countries have reduced their primary deficits, only a few countries have a primary surplus. In addition, gross debt levels have risen sharply and stand above the 60 percent threshold in many countries, making a preference for restrictive monetary policy unlikely. Economic actors will continue to focus on loose monetary policy because of their strong focus on foreign markets. To sum up, while some audience groups in some of the Eurozone countries favor a more restrictive policy, in no member country are most of the audience groups against loose monetary policy.

Figure 17 – Overview of audience groups’ monetary policy preferences



Source: own calculations

The picture on the political side is fuzzier. A number of countries hold neither the Anglo-Saxon nor the southern European view with regard to price stability and governmental intervention in policy. While the general public in most of the countries in the Eurozone support price stability and has overcome their inflation culture, more than half of the countries have general publics that place no value on a de-facto independent central bank, being satisfied with the supremacy of politics. This situation is surprising, considering that at least the founding EU members can look back at more than fifteen years of experience with an independent ECB guarding price stability. In addition, beliefs regarding institutional settings appear to be more persistent than beliefs regarding policy goals. Otherwise, for an independent central bank, that more than 60 percent of the general publics in the Eurozone either distrust the ECB or do not have an opinion on it is worrying. Only 39 percent say that they trust the ECB. Trust that was already low before the crisis has fallen farther across the Eurozone, while the number of people who distrust the ECB has risen. However, not only do “the usual suspects”—the crisis-hit publics—oppose the ECB but countries in which almost as many people oppose as support the ECB include comparably well-off-countries like Austria, Belgium and France. Distrust is not universal across the countries hit by the crisis, nor has it developed in the same way in all countries. For example, while trust is low in Spain, so is distrust, and distrust fell more rapidly in Spain during the crisis than trust did, perhaps because citizens realized that the ECB is stretching its legal boundaries in order to support countries with low growth and high debt levels. Overall, in only two countries—Malta and Lithuania—does the majority of the population trust the ECB, and only in Cyprus do more people distrust than trust the ECB.

The strong rejection of the ECB as an institution is impeded by general support of the Euro and the EMU in general. Across the Eurozone, 70 percent of all respondents to the Eurobarometer poll favor the Euro and the EMU, and this support grew even during the crisis. In crisis countries like Spain and Greece, support remains high (at 63 percent and 66 percent, respectively), and disapproval rates have increased slowly since 2007. The countries with the highest approval rates are Belgium, Estonia, Luxembourg, the Slovak Republic, and Slovenia.

To sum up, national central banks enjoy the unequivocal support of most audience groups because of their loose monetary policy. In addition, the general public in all member states seem to support the Euro and EMU in general, despite the economic upheaval in some member states. However, central bank independence is not anchored culturally in more than

half of the Eurozone member states, and even more troublesome is the low trust in the ECB in almost all member states. Therefore, both national central banks and the ECB need to be on the lookout to defend their independence, probably by satisfying the publics' preferences for monetary policy.

7.5. Have audience groups' preferences influenced the ECB's policies?

The ECB's current monetary policy is in line with the preferences of a majority of audience groups in almost all Eurozone member states, but there are several reasons that national central banks and the ECB should be deeply concerned with those preferences. Most important among them is that a majority of citizens do not trust the central banks. Especially now, ensuring the core audience groups' perception of the banks' success should be at the forefront of all of the central banks' actions, as the pre-crisis consensus has broken down, and both the structure and the mandate of independent central banks are being hotly debated again.

The secrecy of the decision-making process in a body like the ECB makes proving that these concerns have actually influenced decision-making difficult, so one must rely on indirect measures. The ECB's refinancing rate can help in assessing whether there is a positive relationship between audience groups' preferences and the ECB's monetary policy, as when a majority of member countries favor restrictive, unchanged, or loose monetary policy, this preference will be mirrored in the refinancing rate.

Figure 18 shows that monetary policy preferences shifted sharply between 2007 and 2014 with an average score of 1.0 representing a preference for restrictive monetary policy and a 2.0 a preference for loose monetary policy. While in 2007 most of the audience groups in most of the member states favored restrictive monetary policy, in 2014 not a single country supported a more restrictive monetary policy. During 2010 and 2011, preferences changed from loose to restrictive monetary policy because of an easing of the crisis, but preferences rapidly changed back in 2012.

Figure 18 – Monetary policy preferences in the EMU between 2007 and 2014

Monetary Policy Preferences 2007-2014		2007	2008	2009	2010	2011	2012	2013	2014
Loose Monetary Policy	# of countries	6	5	18	14	8	14	17	15
Unchanged Monetary Policy	# of countries	2	3	0	4	3	2	2	4
Restrictive Monetary Policy	# of countries	11	11	1	1	8	3	0	0
Average Monetary Policy Preferences		1,2	1,1	1,9	1,5	1,3	1,6	1,8	1,6

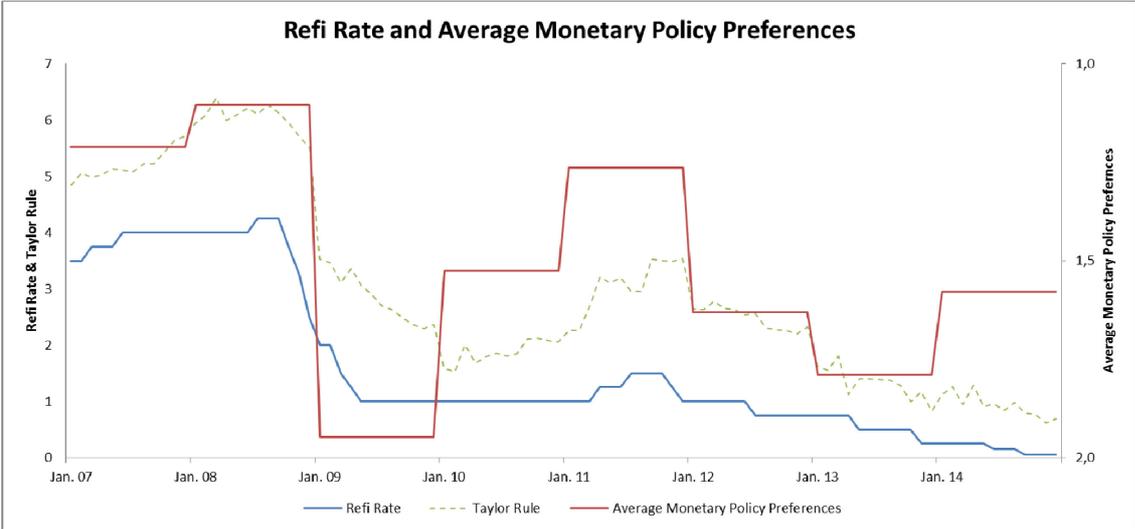
Source: own calculations

Figure 19, which depicts the ECB’s refinancing rate and the average monetary policy preferences in the Eurozone, shows that the ECB’s rate moves in line with Eurozone preferences, as movements in preferences, with only a few months’ lag, coincide almost perfectly with rate changes. This alignment is even more impressive considering that, unlike rate decisions, preferences are tracked only yearly. Figure 19 also suggests that the ECB uses the room given by simple majority rule in the Governing Council to maneuver. Since the beginning of 2014, the number of countries that favor loose monetary policy has declined, although more than half still favored it until the end of 2014. Therefore, because of the majority rule, the ECB’s refinancing rate does not mirror the shift toward more restrictive monetary policy; instead, the central bank has continued to lower refinancing rates since January 2014. Despite the discrepancy between the ECB’s policy and preferences in 2014 (and despite the crude character of the explanatory variable), the average monetary policy preferences of Eurozone audience groups have a solid predictive value.

The optimal Eurozone interest rate, as indicated by the Taylor rule, is used as a control variable in order to determine whether changes in the interest rate have been necessary from an orthodox monetary policy point of view. The Taylor rule is a widely used guideline that generates interest rate recommendations based on inflation and economic activity (Taylor 1993). While the Taylor rule does not necessarily point to optimal monetary policy, it has proven useful as a rule of thumb. The literature shows that the Taylor rule (or minor variations of it) does a good job of modeling many major central banks’ decisions (Taylor 1993; Peersman/Smets 1999). Across the whole period observed, the Taylor rule’s recommendations have been generally consistent with the ECB’s monetary policy. However, while the ECB’s refinancing rate generally mirrors the Taylor rule in direction and magnitude of change, the Taylor rule would have recommended a more restrictive monetary policy across the entire period, perhaps because the ECB does not weight individual member states’ Taylor rule recommendations according to the size of the country’s real GDP. Other factors

that are not necessarily only economic in nature may influence decision-making about monetary policy.

Figure 19 – ECB Refi Rate, average monetary policy preferences, and the Taylor Rule, 2007-2014



Source: ECB; European Commission Annual macro-economic database; Eurostat; own calculations

To support the conclusion that it is not solely economic necessities that shape the ECB’s policy-making behavior, the following case studies analyze in depth some of the most controversial ECB decisions of the recent past.

8. Case studies – Do audience groups influence the ECB’s decision-making?

Since the beginning of the global financial crisis in 2008, the ECB adopted a number of highly controversial measures to preserve the Eurozone’s stability. The decisions to accept Greece’s debt instruments regardless of their credit rating as collateral and the decision to launch the Securities Market Program (SMP) to purchase public and private bonds on secondary markets were met with widespread criticism in the media, in academia, and by some central bankers. For many scholars, these decisions marked the ECB’s departure from its previous role as an independent, neutral monetary policy authority and turned the ECB into a political player (Kaiser 2011). Especially for Germany’s commentators, the ECB crossed the Rubicon with its May 2010 decisions and moved deep into the fiscal space (Engelen 2011), paving the way for numerous other controversial decisions, including the Trichet/Draghi letter to Italy’s government, the excessive use of Emergency Liquidity Assistance (ELA) during the height of Greece’s sovereign debt crisis in 2015, and the launch of Eurozone quantitative easing (QE) in 2015. The key question surrounding each of these decisions is whether the ECB caved to external pressures and sacrificed its independence. This chapter does not judge the virtues of the policies themselves but analyzes the economic and political explanations for the decisions in order to develop possible explanations for them and answer the question concerning whether social and political factors via audience group pressure influenced the ECB’s decision-making. Political Audience Cost Theory suggests that not only the economically relevant factors but also pressure from audience groups played a role in the ECB’s decision-making process. The focus of the chapter is on the decisions in May 2010 as, according to many commentators, they represent the metaphorical breach in the dam. In addition, these decisions marked the first time that a deep public rift appeared in the ECB Governing Council, wherein the governors of the national central banks in northern European countries were pitted against those from southern European countries. Finally, other controversial decisions are discussed.

8.1. Greece’s debt crisis unfolds

After the election victory of the Greek Panhellenic Socialist Movement (PASOK) in autumn 2009, the new government under Prime Minister Papandreou restated Greece’s accounts and sent revised data to Eurostat, the European statistics agency. In his first parliamentary speech on October 16, 2009, Papandreou disclosed that his country was facing considerable financial problems (De Santis 2012). The new data showed that, contrary to previously reported data,

the 2008 deficit would be 7.7 percent of GDP instead of 5 percent, and the 2009 deficit predictions were raised from 3.7 percent of GDP to 12.5 percent. The change in data was not so much a result of misestimating GDP but of misreporting fiscal data. Although Eurostat indicated in a press release that it had reservations about Greece's numbers, interest rates on Greece's long-term debt remained relatively stable. Bad accounting habits were not new with regard to Greece, so it was not a surprise for markets that Greece had to restate accounts once again. However, markets did take a closer look on how political leaders in the Eurozone would react. After all, markets never fully believed in the no-bailout clause of the Maastricht Treaty but expected that countries would be bailed out if needed, which explains why spreads among the government bonds of Eurozone member states were virtually non-existent between 2000 and 2007 (European Union Centers of Excellence 2010; Tagesschau 2015; Konrad Adenauer Stiftung 2015).

Politicians did not react in the way markets had hoped but, instead of supporting Greece, voiced criticism during November and early December 2009. While it was not on the agenda of the European Council meeting in early December, the heads of state discussed Greece's debt problem, and Germany's Chancellor Merkel and others declared afterward that assistance to Greece was out of the question and that Greece's government had to solve its budget deficit problem on its own by implementing far-reaching reforms (European Union Centers of Excellence 2010; Zeit Online 2009).

On December 16, 2009, Standard and Poor's (S&P) downgraded Greece from A- to BBB+ following a similar move by Fitch, resulting in further pressure on Greece's bond markets (Frankfurter Allgemeine Zeitung 2009; Tagesschau 2015). In January 2010, interest rates on Greece's debt rose to 7.26 percent, increasing the spread to German Bunds. On February 11, 2010, the European Council declared that the EU would support Greece if doing so was necessary to guarantee the stability of the Eurozone (Konrad Adenauer Stiftung 2015; Tagesschau 2015). Apart from this political declaration of intention, there were no specifics. Again, markets had hoped for more, and average interest rates for Greece's debt stayed above 6 percent (Panico/Purificato 2013). While confusion persisted about how much other member states were actually willing to help Greece across February and into March, 2010, the relatively stable bond prices suggested that investors were overall reassured. However, the situation changed as solidarity with Greece unraveled and Germany's Chancellor Merkel outlined the conditions under which assistance to Greece would be acceptable for Germany:

Greece would receive support only in the event that access to financial markets ceased and if the International Monetary Fund (IMF) participated in the rescue measures. By the end of March 2010, the majority of Eurozone countries had fallen in line with these conditions, against the fierce criticism of the ECB directorate and the EU commission, both of which objected to the inclusion of the IMF (Frankfurter Rundschau Online 2010; Haas/Pak 2010).

These conditions shocked markets because giving Greece help only when its market access had ceased meant that bond prices still had considerable downside potential and because the inclusion of the IMF in the conditions increased the chance of a partial default. In response to market participants' reassessment of assistance, Greece's interest rates rocketed in April 2010, despite the passing of a first assistance package of EUR 110 billion in bilateral credits from Eurozone member states and the IMF. On April 27, 2010, S&P sent the next shockwave through markets when it downgraded Greece's bonds to junk (BB+). While Greece's government said it did not understand the decision, S&P went even farther and warned debt holders that their chances of getting their money back in the case of default were below 50 percent (Focus Online 2010a). Markets panicked and interest rates on Greece's bonds went into the double digits. The interest rates of other Eurozone countries, including Spain, Portugal, Ireland, and Italy, rose as well and market observers began discussing the risk of contagion. The downgrade of Greece's bonds was important because, according to the ECB's policies, central bank money was available to commercial banks only with collateral that had a minimum credit rating of BBB-. Therefore, the downgrade introduced the possibility that Greece's commercial banks would be cut off from central bank liquidity. The ECB reacted to the increase in spreads on May 3, 2010, by suspending credit rating requirements for all debt and other financial instruments guaranteed by the Greek state to ensure that Greece's commercial banks could use the country's debt as collateral at the ECB (Spiegel Online 2010b; Focus Online 2010b; Manager Magazin 2010). This decision came despite the ECB's prior assurance that it would neither grant Greece special status nor accept its securities as collateral. In fact, the ECB promised a return to the minimum credit rating of A- for collateral by the end of 2010 (Sinn 2010; Haas/Pak 2010; Greive 2010). Nevertheless, interest rates on Greece's and other Eurozone countries' debt kept rising until the morning of May 10 (European Union Centers of Excellence 2010; Konrad Adenauer Stiftung 2015; Tagesschau 2015).

To battle this dynamic, which was coupled with a sellout at the stock markets and signs of stress at the money markets, the European heads of state held an extraordinary European Council on the weekend of May 8–9, 2010, during which a compromise was struck and made public just before the stock markets opened in Tokyo. The offer consisted of EUR 500 billion in special assistance from the European Union member states and an additional EUR 250 billion through the IMF's usual facilities. In addition, on May 10 the ECB announced its Securities Market Program (SMP), which consisted of government bond purchases on secondary markets. These orchestrated actions impressed markets at first, as interest rates for Greece's bonds fell to rates below 8 percent and money and stock markets calmed down (European Union Centers of Excellence 2010; Panico/Purificato 2013; Konrad Adenauer Stiftung 2015; Tagesschau 2015).

Public reaction to the measures taken by the ECB were mixed. Germany's newspapers saw the outcome as a surrender of the ECB to political pressures and a breach in the dam against fiscal dominance. The consensus of Germans' opinion was that the ECB was behaving contrary to the spirit of the Maastricht Treaty and that the purchase of government bonds was essentially deficit financing via the printing press. While this reaction was to be expected from Germany's newspapers, that the ECB's actions also sparked criticism and surprise by banking analysts was more surprising. While the majority of analysts quoted from Deka, Unicredit, Barclays Capital, Commerzbank, LBBW, and Royal Bank of Scotland saw both instruments as helpful in principle, they also voiced concerns. They believed that the decision to suspend collateral requirements only for Greece contradicted the ECB's statements, especially because as at that stage only two major rating agencies had downgraded Greece to junk. In addition, many analysts considered the purchase of government debt premature and possibly damaging to the ECB's reputation, putting in question the bank's mandate and independence. The analysts were clearly surprised that the ECB had not waited for the market's reaction to the newly announced rescue and austerity package before breaking a monetary policy taboo (Spiegel Online 2010b; Focus Online 2010b; Greive 2010; Haas/Pak 2010).

The next section assesses the various economic explanations for the ECB's bold moves.

8.1.1. Economic reasons for the May 2010 decisions

The ECB defended its decision to change the eligibility of Greece's debt instruments and the purchase of public and private debt through the SMP on economic grounds. Therefore, this analysis begins with the economic arguments brought forward before continuing to address political arguments.

When the ECB announced its decision to suspend the credit-rating requirements for Greece's debt, it based its argument on the economic and financial adjustment program to which Greece's government had committed. The ECB argued that the program was appropriate and that, from a risk-management perspective, public debt and other debt from the Greek state's guaranteed debt should once again be considered good collateral (European Central Bank 2010b). This argument is problematic because, at the time of the ECB's decision, the economic and financial adjustment program had not yet been fully implemented but was only a political promise. In addition, at the time of the decision, only two of the major credit rating agencies had downgraded Greece to junk, so the ECB's decision already anticipated further downgrades, rendering unreliable its earlier statement about the quality of Greece's collateral.

Before the ECB's decision, the central banks relied on the Eurosystem Credit Assessment Framework to judge collateral's quality. The framework spelled out that the ECB would base its quality assessment on factors that included external credit rating agencies, internal analyses of national central banks, rating tools, and decisions by business partners and external providers; should an asset lose its quality, the central bank would force the recipient of central bank liquidity to provide additional collateral through a margin call, which the ECB would not accept if it concluded that the collateral could no longer be rated BBB+ (Käfer/Michaelis 2012). This framework is based on economic and political reasons: From the economic point of view, it makes sense that the central bank does not duplicate external credit rating agencies' resources, and from the political point of view, basing the credit rating on an internal assessment would open the central bank up to criticism, regardless of the quality of the data. Downgrades would be especially sensitive politically and would likely result in political indignation in the country affected (Käfer/Michaelis 2012).

The framework indicates that the ECB was not forced to make its decision on economic terms. Since only Fitch and S&P had downgraded Greece's bonds, the ECB could have pointed to the fact that half of the big credit rating agencies registered under its framework

had not yet considered Greece's bonds junk. Instead, the ECB decided to stop relying on credit ratings altogether. While the decision to suspend credit rating requirements for Greece's collateral might have been intended to calm markets, it increased suspicion that the ECB had not based the decision solely on economic terms. ECB President Trichet claimed that a possible exclusion of Greece's debt as collateral meant that those of Greece's banks that depend on Greece's bonds to receive central bank money would be de-facto cut off from liquidity (Hayo et al. 2010). However, this argument is not entirely convincing from an economic point of view, as it is not the task of the central banks to protect banks from having to deleverage and reduce lending if their equity is reduced by bond write-offs (Sinn 2013). In addition, banks based in a default country would not necessarily have refinancing problems; as long as the ECB's "insurance policy" was not on the table and junk bonds were not accepted as collateral, sound banks in a defaulting country could rebalance their portfolios by increasing the percentage of bonds in their portfolios that were from countries with high levels of creditworthiness, thereby maintaining their access to central bank liquidity (Wissenschaftlicher Beirat beim Bundesministerium für Wirtschaft und Technologie 2011).

To sum up, the ECB's decision to suspend collateral requirements for Greece's debt was economically avoidable. While the decision stabilized Greece's financial system, the core argument for the measure seems to have been to buy time for political actors to decide how to proceed with rescue measures. At the same time, the measure resembled a bank bailout; one Frankfurt banker allegedly called it a free lunch for banks and noted that whoever was not dumping securities had only themselves to blame (Reuter 2010). Banks were allowed to off-load collateral of dubious quality at face value at the central bank, resulting in a transfer of credit risk to the central bank and ultimately to taxpayers and raising suspicion that political factors played a substantial role in the ECB's decision.

The ECB's decision on May 10, 2010, to activate the SMP was a decision to purchase public and private debt. In a press release, the ECB referred to "severe tensions in certain market segments which are hampering the monetary policy transmission mechanism" (European Central Bank 2010c). The ECB's argument was that its bond purchases were a reaction to the tensions that had rendered transmission channels dysfunctional and that, therefore, bond purchases were necessary to facilitate the effective conduct of monetary policy (Wissenschaftlicher Beirat beim Bundesministerium für Wirtschaft und Technologie 2011).

In the days prior to the ECB's decision, the bond, stock, and money markets experienced considerable turbulence. As the ECB stated in its monthly report in June 2010, volatility increased and liquidity decreased significantly in the bond markets on May 6, and some market segments were no longer functioning properly. While spreads between Greece's and Germany's government bonds rose especially strongly, possible contagion to Portugal, Ireland, and Spain could no longer be ruled out. On May 7 a flight to safe havens that was comparable only to that in spring 2009 resulted in new bond-spread highs and increasing volatility. As a result, liquidity fell in the bond markets—and all but dried up in Greece's bonds. The shortage in liquidity was mirrored in the interbank market, and access to US dollar refinancing became scarce. Indicators of systemic risk surpassed values that had been last observed before the downfall of Lehman Brothers. In addition, turbulence led to a sell-off wave that hit financial titles especially hard (European Central Bank 2010a). The ECB subsequently argued that the turbulence in the bond, stock, and money markets and dysfunctional transmission mechanisms reduced the central banks' ability to influence interest rates.

According to the ECB, the interest-rate channel was dysfunction because of the large spread between Germany's and other governments' bonds, the rise in interest rates, and the fact that companies in the affected countries had to pay higher interest on their debt. Dysfunctional transmission mechanisms would imply market failure. While the downgrading of a country usually increases the interest rates that public and private issuers have to pay—some rating agencies have the rule that no private issuer can have a better credit rating than the state in which it operates—and in the days preceding the decision bond markets from the weakest and most indebted countries almost dried up, it is doubtful that the rise in interest rates in the case of Greece can be considered a market failure (Sinn 2013; Belke 2010). The argument of Greece's Prime Minister Papandreou that an interest rate of 7 percent was unbearable ignores the fact that Greece had to pay double-digit interest rates for most of the pre-EMU era (Meyer 2010). In fact, the ECB relied on an argument first put forward by Italy's national central bank that the spreads were indications of market failure, as they were based on the incorrect assumption that single countries would have to leave the Eurozone or the whole Eurozone would collapse (Sinn 2013). Given the events of April and May 2010, however, a scenario in which Greece would default and would have to leave the Euro was certainly possible. Greece was running a huge budget deficit, had a very high debt-to-GDP ratio, and had just been

downgraded to junk. In addition, Greece's public had met austerity measures with fierce resistance, including general strikes, riots, and even the deaths of some protesters. At the same time, Eurozone solidarity with Greece was not a given, as politicians and the general public in a number of Eurozone countries remained wary. In such a situation, rising spreads resemble less market failure than a sensible market reaction to the fact that haircuts, if not default, and the possible end of the option to unload high risk debt at the ECB had become a real possibility. Even today, after six years of Eurozone rescue measures, the exit of a country is possible, because of very high unemployment rates, austerity fatigue, and the rise of extremist parties in some European countries (Sinn 2013; Belke 2010). Finally, if the transmission channels were hampered at spreads of about 1 percent in May 2010, it should have broken down completely in the following months as spreads rose (Sinn 2010; Panico/Purificato 2013).

Considering the rising spread of Germany's Bunds vis-à-vis those of other European states (excluding Greece), it is clear that the pricing of government debt reacted to a number of risks. Some countries that were affected by increasing spreads, such as Spain and Portugal, had similar, even if less serious, country-specific problems, with low economic competitiveness, structural deficits, and rapidly increasing debt levels, so they could have run into difficulties in placing new debt (Centrum für Europäische Politik 2013). Others, such as Austria, Finland, and the Netherlands, had sound fiscal fundamentals and no market participants claimed that their rising interest rates had anything to do with a market re-assessment of government credit risk. Their increase in spread can be explained by aggregate risk, that is, global uncertainty and risk aversion, which increased demand for Germany's government debt instruments because of their reputation as a safe haven, which in turn influenced the pricing of all other European countries' debt, including Austria, Finland, and the Netherlands. In addition to aggregate risk, some countries, such as Italy and France, also suffered from contagion; their spreads increased because of their weak fiscal fundamentals after S&P downgraded Greece (De Santis 2012). However, there would have been no contagion if everyone had known that there would be no bailout; contagion was self-inflicted, as the only information investors could have extracted from the handling of Greece's debt problem with regard to other European sovereign debt was whether there would be a bailout (Cochrane 2010). As de Santis points out, central banks can intervene successfully only if problems are caused by liquidity or contagion. In cases of country-specific and aggregate risk,

the central bank has less room to maneuver (De Santis 2012), especially because, in a market economy, aggregate market demand, not institutional actors, should define interest rates on debt (Sinn 2013). In addition, the Centrum für Europäische Politik points out that sudden increases are not at all uncommon and are largely based on the difficulty of assessing a country's solvency (Centrum für Europäische Politik 2013). Solvency depends on a country's willingness and ability to pay and the inability to predict insolvency leads to sometimes sudden spread increases once the market has decided to reassess a government's credit risk (Centrum für Europäische Politik 2013).

Another argument used by ECB President Trichet at the extraordinary European Council meeting on May 8–9 was that there was possibility of distortions in the money markets that would be comparable to Lehman Brothers' insolvency. A breakdown of the interbank market would seriously hamper the banking transmission channel of monetary policy decisions. If Greece had been allowed to default, banks would have to write down Greece's and other Eurozone countries' sovereign bonds. The resulting reduction in bank equity could have threatened the solvency of a number of banks and triggered a market panic (Hayo et al. 2010). The events that led to the weekend of May 8–9, including market turbulence and indecisive political leadership, did resemble the last days before the collapse of Lehman Brothers. However, the consequences of the two events were very different.

When Lehman broke down in the fall of 2008, the panic that resulted was driven largely by the uncertainty concerning whether more banks could have similar problems and whether their respective countries would rescue them. It was the event of a systematically relevant bank's going bankrupt, an event previously judged impossible, that unsettled the market. The fact that the US government had decided to let Lehman Brothers go bankrupt shook the markets' confidence in supportive government action. As a result, banks stopped trusting each other, rendering the interbank market de-facto defunct, as every bank preferred to hoard cash and reduce lending activities to a minimum, leading to a credit squeeze in the real economy. However, in May 2010 the situation was different. As a result of the financial crisis of 2008, states all over the world, including those in Europe, had guaranteed citizens' savings and bailouts for their national commercial banks. In many countries these promises were institutionalized in the form of rescue funds, as was the case with Germany's Soffin, that were ready to intervene at once. Therefore, had the interbank market collapsed on May 10, despite the announcement of the agreement regarding the special assistance fund, which was worth

EUR 750 billion (USD 250 billion more than the US Troubled Asset Relief Program at the height of the Lehman crisis), every country would have had to bail out their own commercial banks. Because they had already off-loaded large quantities of Greece's debt at the ECB, the task was manageable (European Union Centers of Excellence 2010; Vaubel 2011; Sinn 2010).

The final economic argument brought forward was the strong depreciation of the Euro prior to May 10, especially with regard to the US dollar. Politicians and some economists voiced worries about the devaluation, going so far as to claim that the Euro's very existence was at stake. However, there was no currency crisis in spring 2010: Depreciation had begun in 2009, and while partly a result of the Greek debt problem, it was also seen as a normalization after the Euro had appreciated by 30 percent between 2005 and 2008. In addition, unlike the European economy, the American economy was growing strongly during the first two quarters of 2010 (Wissenschaftlicher Beirat beim Bundesministerium für Wirtschaft und Technologie 2011; Hayo et al. 2010).

To sum up, from an economic point of view, it is doubtful that transmission mechanisms were dysfunctional because of rising spreads and interest rates, the possibility of an interbank market crash, and the Euro's devaluation. While markets were turbulent in the early weeks of May 2010 and there was definitely some exaggeration in market movements, it is difficult to argue that the transmission mechanisms were dysfunctional instead of simply reacting to a reassessment of sovereign debt sustainability and beginning to reapply different risk premiums to different Eurozone countries, resulting in spreads. Money and stock markets were clearly in a state of exaggerated panic, but after the announcement of the EUR 750 billion European Financial Stability Facility (EFSF) and a reiteration of the Euro countries' commitment to bailing out banks, markets may have calmed even without additional ECB measures (Mink/De Haan 2012). While many scholars agree with this assessment, some point out that at least part of the rise in spreads was unjustified, and the fact that many countries at risk of contagion points to dysfunctional transmission mechanisms (Demary and Matthes 2013a, Bundesbank 2012). While, because of most states' comparatively solid fiscal policies, most cases of contagion were unlikely to develop into real problems for the respective states. After all, Spain had a better GDP-to-debt ratio than Germany did, and market reaction and the case of Ireland showed that the possible mechanisms of contagion could have been a lot more difficult to fully understand than believed (Wissenschaftlicher Beirat beim Bundesministerium für Wirtschaft und Technologie 2011). To dispel such fears and end the

risk of contagion, some limited support for endangered countries was advisable (Sinn 2010). With regard to the possibility of an interbank market crash, lessons learned from the financial crisis of 2008 and the resulting institutionalized bank rescue funds made a crash unlikely even if Greece defaulted, as the Eurozone banks would have been instantly recapitalized by their respective countries. Similarly clear is the case of the Euro's devaluation against the US dollar, as devaluation was only partly driven by Greece's debt crisis, and the Euro's internal and external value was never endangered.

The decisions of the ECB and the assessment of the economic arguments brought forward suggest that it was odd that the ECB came to the aid of troubled Eurozone countries in this principle-changing fashion. While decision-makers were under heavy pressure in May 2010, they appear to have used monetary-policy arguments as an excuse. Both policies seem to have been designed more to prevent write-offs on central and (especially) commercial banks' balance sheets. If that was the true objective a direct purchase of toxic sovereign debt would have been the cheaper and more targeted approach. In addition, interest rates in the Eurozone had not reached the zero lower bound. Therefore, the ECB did not buy the bonds to implement monetary policy but to keep bond markets liquid and deep so that Eurozone member states could continue borrowing at low interest rates. Monetary policy arguments were used to window-dress another bailout for commercial banks in the Eurozone, give governments more time to reform, and reduce the adjustment costs (Centrum für Europäische Politik 2013; Wissenschaftlicher Beirat beim Bundesministerium für Wirtschaft und Technologie 2011). In addition, the ECB could have relied on emergency liquidity assistance (ELA) to keep financial systems afloat. In contrast to the other two ECB measures, the ELA program already existed and all of the risks and costs of the granted credit lines would have remained on the respective national central banks' balance sheets. Therefore, especially the ECB's second decision, to purchase private and public debt, cannot credibly be defended on economic grounds. The argument that the program was intended to restore orderly markets is not convincing, especially as the ECB decided which market movements were justified and which were not (Belke 2010). The notion of a true Euro crisis was misleading; it was a crisis of over-indebtedness of some Eurozone member states. Only if a large number of member states had faced insolvency would the Euro have really be endangered (Wissenschaftlicher Beirat beim Bundesministerium für Wirtschaft und Technologie 2011).

In light of this conclusion, the question arises concerning why the ECB's Governing Council did not rest its decisions solely on economic arguments. To answer this question, the next section turns to the interests of political actors, financial actors and the general public in the Eurozone.

8.1.2. Audience group pressure and the May 2010 decisions

In order to assess the probability that external and especially political pressure was exerted on the ECB, one must understand the dynamics of the extraordinary European Council meeting on the weekend of May 8–9. The negotiations were intense, chaotic, and clearly driven by the impression of a crisis situation. An example of the chaotic nature of the meeting is Germany's Chancellor Merkel's absence from most parts of the meeting. As additional rescue measures for Greece in excess of the pre-arranged package had not been on the agenda, she was in Moscow. Nevertheless, the weekend bore the EUR 750 billion EFSF, and by the end of the meeting the no-bailout clause of the Maastricht Treaty was wastepaper. National interests seem to have played a considerable role in the meeting; in fact, solving Greece's underlying problems seem to have been of only minor importance, despite President Sarkozy's claims that he had rescued the Euro (Vaubel 2011). While the decision to suspend collateral credit rating requirements for Greece's public and private bonds can be defended on the basis of concerns about the financial stability of Greece's banking system and can be interpreted as an attempt to give political actors the chance to decide on the rescue package, the decision to start purchasing Greece's government debt on May 10 raises questions, as it can hardly be justified economically.

The assessment of political line of arguments begins with the interests of political actors. Although there is a low probability of a breakdown of the whole Eurozone, objective economic data indicates that the political world was in crisis mode in May 2010. Prior to May, the official version of the problem stressed that it was merely Greece's debt crisis, but the language changed around the time of the extraordinary council meeting, when the phrase "systemic crisis" suddenly came into use. The new line of thinking stressed that the systemic character of the crisis no longer endangered only highly indebted countries but also threatened countries with sound financials and even the Euro itself. Politicians both claimed and seemed to believe that the Eurozone—and with it the European and worldwide financial markets—were on the brink of collapse. Eurogroup chair Juncker spoke of a "worldwide organized attack against the Euro," and Germany's Chancellor Merkel and French President Sarkozy

stressed the need to “prevent speculators from endangering the adjustment efforts that have become necessary because of the recently overcome economic and financial crisis” (Sinn 2010: 5). Even ECB President Trichet joined the chorus, stating that the Euro was facing a systemic crisis (Sinn 2010). As former high officials of Germany’s finance ministry and advisors to Germany’s government revealed ten years after the meeting in an article in *Die Welt*, it was fear of the unknown that dictated policy action (Dams et al. 2015), the shock of Greece’s near-default and the fear of contagion that led to dramatic political action (Wissenschaftlicher Beirat beim Bundesministerium für Wirtschaft und Technologie 2011). Officials and advisors remember that there were two strands of argument. One was the economic strand, which was based on the fear that Greece could become the new Lehman Brothers. Although Greece was only 3 percent of the Eurozone’s economy, no one knew what would happen if it defaulted or could guarantee that there would not be a catastrophe the day after. There was never the feeling that one could just let Greece go. The second strand of argument was the political one, which revolved around German Chancellor Merkel’s statement that “if the Euro fails, [...] Europe will fail, the idea of European integration will fail” (Merkel 2010). Merkel may have feared that she would be held responsible for the failure of the Euro and for the end of European integration, so the discussion took on a historical perspective that had nothing to do with economic analysis (Dams et al. 2015). It is likely that to varying degrees both arguments influenced political actors in the Eurozone countries and provided them with a strong incentive to prevent Greece’s default. However, specific national interests also shaped the Eurozone countries’ positions.

As Spain’s Prime Minister Zapatero reported to his party after the meeting, French President Sarkozy allegedly threatened to leave the Eurozone and oppose Germany should Germany not be willing to participate in the rescue fund (Sinn 2010; The Guardian 2010). One reason for Sarkozy’s threat may have been that France’s banks were heavily burdened by government debt, including EUR 21 billion in Greece’s government bonds and EUR 52 billion in Spain’s, Portugal’s, and Ireland’s government bonds. France’s banks were by far the Eurozone banks with the greatest exposure. (In contrast, Germany’s banks held only EUR 16 billion in Greece’s bonds.) Therefore, a national solution would have had to include an expensive bailout of France’s commercial banks by the French state. Another pressing issue for France and other southern European countries was the rising spread between Germany’s Bunds and the other countries’ government bonds and the resulting increase in interest to be paid.

Regardless of the economic reasons for the spread, the diminishing ability of southern European countries to finance their deficits cheaply alarmed them. One of the key reasons that some of these states had voted in favor of the Euro's introduction was the risk premium they had had to pay beforehand and which they hoped not to have to pay after the introduction of the Euro. In the first years of the Eurozone—until 2008—these hopes were largely fulfilled, as countries like Spain, Italy, and Portugal had to pay negligible interest premiums over Germany's Bunds. However, with the debt crisis, the previous circumstances were returning; while spreads were still lower than they were before the introduction of the Euro, the desire to reduce the spread again may have been why southern European states supported the EFSF (Sinn 2010).

Germany's national interests may also have played a role. Some scholars and commentators claim that the regional election on May 9 in the German state of North-Rhine Westphalia influenced Germany's willingness to concede. According to their argument, Chancellor Merkel feared that further support for Greece would cost her an election victory, as support for Greece was widely unpopular in Germany (European Union Centers of Excellence 2010; Reuter 2010; Panico/Purificato 2013). Finally, Eurogroup President Juncker and EU Commission President Barroso may have seen the crisis as a chance to expand their influence, as both would have greatly benefitted from standing financial facilities under the roof of the EU (Vaubel 2011).

In line with Political Audience Cost Theory, political pressure on the ECB rose in May 2010. After the flash crash of Wall Street on May 7, the Fed and the US government increased pressure on Eurozone governments and the ECB (Sinn 2015). Europe had only a few days to solve its problems (Dams et al. 2015). US President Obama pushed Eurozone leaders to find a solution to the debt crisis (Barber 2010). At the same time, during the extraordinary Council meeting, French President Sarkozy, Italy's Prime Minister Berlusconi, Portuguese Prime Minister Sócrates, and other southern European prime ministers pressed Trichet to buy sovereign bonds. With the support of Germany's Chancellor Merkel, Finnish Prime Minister Vanhanen, and Dutch Prime Minister Balkenende and quoting the ECB's independence, Trichet apparently refused such attempts to influence monetary policy-making (Henning 2015; Reuter 2010; Woodruff 2014; Barber 2010). While neither episodes can be verified and the extent to which the ECB had to bow to pressure is unclear, only three days after Trichet denied any intention to purchase debt, on May 9, the ECB Governing Council decided to

launch the SMP (Stark 2010; Dams et al. 2015). How the SMP was structured and announced raises questions and does little to refute suspicion about political pressure on the ECB (Meyer 2010). The outcome on the morning of May 10 reflected President Sarkozy's demands and looked very much like *quid pro quo*, even though the two decisions were not formally coupled. After the Eurozone governments announced their EFSF, the ECB announced its SMP. It remains unclear why the ECB did not await the market reaction to the ESFS before purchasing bonds (Henning 2015; Belke 2010; Woodruff 2014). The ECB also decided to purchase Greece's government bonds and imposed no haircut, even though the EFSF had just been approved by the European heads of state. It was clear that Greece would not need to return to financial debt markets for financing for many years. In addition, that only Greece's bonds were exempted from collateral requirements and that this exemption was upheld even after Greece was "rescued" invited monetary policy problems and the question of a selective advantage on behalf of Greece. Commercial banks used the ECB's liquidity provisions to invest even more in Greece's and other Eurozone countries' government bonds that had been threatened by default. As long as credit rating requirements were suspended, these bonds were the most liquid of assets, as banks could always hand them over to the ECB in return for fresh liquidity (Sinn 2010; Sinn 2013; Wissenschaftlicher Beirat beim Bundesministerium für Wirtschaft und Technologie 2011). As a result, speculations about a "French bias" arose. Even some of Germany's central bankers assumed that the ECB bought Greece's bonds after May 10 only to allow France's banks to sell down their holdings. Germany's banks saw little advantage from the measure because they had voluntarily agreed with Germany's Finance Minister not to sell their Greek bonds (Reuter 2010). Policymakers effectively broke all of the rules in order to save the Eurozone, as Christine Lagard, then France's Finance Minister, put it (Sinn 2015).

The second audience group with a strong interest in the negotiation was the financial sector. In the past the financial sector had not worried about the solidity of Eurozone governments' debt; instead, all debt was judged to be more or less equally secure, and only small interest premiums were applied. With the outbreak of Greece's debt crisis and the wavering Eurozone support for Greece's government, the financial sector rapidly adjusted its expectations, and it is likely that the ECB was subject to intense pressure from the financial sector (Belke 2010). In fact, the financial sector assumed from the beginning that Greece would be bailed out, and the idea that the ECB could start buying bonds was raised by the markets but denied by ECB

President Trichet (Dams et al. 2015; European Union Centers of Excellence 2010). Financial markets did not necessarily have to spell-out their demands, as by hinting at a possible panic because of disappointed expectations, they could already generate enough pressure. As Woodruff (2014) calls it, financial markets were “governing by panic.” According to the German magazine *Spiegel Online*, Germany’s government believed financial actors were also the source of the returning public speculation about a German bailout plan prior to the weekend of May 8–9 (Spiegel Online 2010a). It is plausible that the same pressure of expectations built within the ECB, leaving the central banks little room to maneuver should it not want to disappoint markets with unclear consequences.

The third audience group was the general public. A poll fielded by the *Financial Times* and Harris in March 2010 found mixed sentiments with regard to whether the Eurozone had a responsibility to help members in need and whether Greece should be supported (Atkins 2010). As Figure 20 shows, the general public in Germany denied a common responsibility to help other Eurozone countries, while the public in southern member states like France, Italy, and Spain supported it (Corso 2010).

Figure 20 –EU members’ views regarding their responsibility to help other member countries

RESPONSIBILITY TO HELP WITHIN THE EU
 “How much do you agree or disagree with the following statement: The European Union and its members have a responsibility to help other member countries that get into financial/fiscal trouble?”
 Base: All EU adults in five countries

	Great Britain	France	Italy	Spain	Germany
	%	%	%	%	%
Agree (NET):	35	46	59	65	32
Strongly Agree	9	9	14	33	5
Somewhat Agree	26	38	45	32	27
Neither agree nor disagree	31	30	25	15	22
Disagree (NET):	34	24	17	20	46
Somewhat disagree	18	15	13	11	27
Strongly disagree	16	9	4	9	19

Source: Corso (2010)

The same division is apparent with regard to the question concerning whether national governments should support Greece (Figure 21). While in Germany 61 percent of the public opposed support for Greece, more people in Italy and Spain supported assistance to Greece than opposed it, and public opinion in France was split. However, an average of 20 percent of the respondents in these four countries had no opinion on either question (Corso 2010).

Figure 21 – EU members’ views regarding support for Greece

“The EU is discussing ways to help Greece cope with its budget deficit. How much would you support or oppose the government in your country to do so?”

Base: All EU adults in five countries

	Great Britain	France	Italy	Spain	Germany
	%	%	%	%	%
Support (NET):	21	35	40	45	20
Very much support	4	5	4	15	4
Somewhat support	17	31	36	30	16
Neither support nor oppose	24	26	26	21	19
Oppose (NET):	56	39	34	34	61
Somewhat oppose	26	24	23	19	31
Very much oppose	30	15	10	15	31

Source: Corso (2010)

A second survey, commissioned by the Fondation pour l’Innovation Politique and carried out by Ifop in March 2010, presented a similar picture (Figure 22). Asked whether their states should provide Greece with financial aid in the interest of European solidarity, the majority of respondents in Spain, Italy, and France said they should, while the majority in Germany said they should not (Ifop Institute 2010).

Figure 22 – EU members’ view on whether Greece should be provided financial aid

	Europe	France	Germany	Spain	Italy	UK
	(%)	(%)	(%)	(%)	(%)	(%)
• Yes	42	53	24	55	67	22
• No	58	47	76	45	33	78
TOTAL.....	100	100	100	100	100	100

Source: Ifop Institute (2010)

The Fondation pour l’Innovation Politique poll also indicates why the level of solidarity with Greece differed from country to country (Figure 23). Asked whether they thought that their states would face a similar situation as Greece within the next months or years, respondents from France, Spain, and Italy said they did, while in Germany most respondents said they did not (Ifop Institute 2010).

Figure 23 – EU members’ views on the likelihood of facing a situation similar to that of Greece within the next months or years

	Europe	France	Germany	Spain	Italy	UK
	(%)	(%)	(%)	(%)	(%)	(%)
TOTAL Yes	52	61	34	69	56	50
• Oui, definitely	12	13	7	22	11	10
• Oui, probably	40	48	27	47	45	40
TOTAL No	48	39	66	31	44	50
• Non, probably not	42	37	55	27	37	46
• Non, definitely not	6	2	11	4	7	4
TOTAL.....	100	100	100	100	100	100

Source: Ifop Institute (2010)

Another reason for a difference in the willingness to support Greece could be the differing views on what caused the problems in Greece (Figure 24). Asked what factor was primarily responsible for Greece’s debt and deficit problem, in Germany more than two-thirds of the respondents saw Greece’s government’s inability to manage the country’s finances as the primary reason. While a majority in France and Spain also believed that it was primarily Greece’s government’s fault, only 44 percent of Italy’s respondents shared that belief. In contrast, while only 9 percent of Germany’s respondents saw financial speculation as the primary reason, an average of 20 percent of France’s, Italy’s, and Spain’s respondents saw it as the primary reason (Ifop Institute 2010).

Figure 24 – EU members’ views on the primary factor for Greece’s problems

	Europe	France	Germany	Spain	Italy	UK
	(%)	(%)	(%)	(%)	(%)	(%)
• The fact that the Greek governments have poorly managed their country’s finances	60	57	78	59	44	56
• The global economic crisis which has hit Greece hard	24	19	13	27	33	33
• Financial speculation intended to destabilize the Euro by attacking Greece, one of the weakest countries in the Euro zone	16	24	9	14	23	11
TOTAL	100	100	100	100	100	100

Source: Ifop Institute (2010)

To sum up, public opinion in the four largest Eurozone countries was split prior to the extraordinary European Council meeting. While the public in Germany opposed support for other member states in general and Greece in particular, the public in the southern European countries supported assistance. Possible reasons for this divergence in opinion could have been the perceived likelihood of having to face the same situation in the future and the assessment of the primary reason for Greece’s debt problem. It is reasonable to assume that public opinion in other Eurozone countries mirrored this division: Publics that feared a similar fate as that of Greece and that not necessarily believed that governments were responsible for the debt drama favored assistance, while publics that believed they were at no risk and that saw governments as the primary reason for the debt crisis opposed assistance. Differing public opinions might have influenced the respective governors of the national central banks and affected their decision on SMP.

Finally, ECB President Trichet played an important role during the negotiations. From the beginning of the crisis, the ECB participated in discussions on rescue packages and their conditions, not just in an advisory capacity but as an actor with its own agenda. The ECB was involved in strategic interaction with governments that tried to extract the most accommodative monetary policy and liquidity provisions possible for crisis countries (Henning 2015; Woodruff 2014). It was Trichet who, on the evening of May 7, warned the heads of state of the market panic that would occur if Greece were allowed to default. He also emphasized that it was no longer Greece’s problem but a European problem (Barber 2010;

Dams et al. 2015). Prior to this meeting, many heads of state judged the situation to be considerably less dangerous than Trichet did (Dams et al. 2015), but Trichet presented the situation in such drastic ways that Chancellor Merkel later spoke of an *ultimo ratio* decision (Vaubel 2011). Why did Trichet present the situation in the financial markets as so dire? Did he really believe that a “Lehman Brothers II”: scenario was likely? The Bundesbank and the Dutch national central bank did not support the subsequent decision to install the SMP, and the chief economist of the ECB, Jürgen Stark, was at least concerned about the program, and in 2011 both Stark and Bundesbank President Weber resigned, at least partly as a result of the SMP (Mabbett/Schelkle 2015). This dissent among top European monetary personnel raises doubts that the ECB as an institution saw the situation to be as dire as it was presented (Sinn 2010; Belke 2010; Alich/Häring 2010; Stark 2010; Panico/Purificato 2013). According to Henning (2015), Trichet saw the extraordinary meeting as a way to convince Eurozone member states to undertake fundamental adjustments and commit financial resources to the rescue plan. If such was the case, Trichet had a motive to overdramatize the economic situation in order to extract concessions from the heads of state. From a political point of view, such a move was both sensible—after all, it was essentially political indecisiveness that sparked market turbulence—and successful, as over the weekend political leaders approved a support package of unprecedented size.

The question concerning the extent to which external pressure influenced the ECB’s decision-making is difficult to answer, as loosening monetary policy does not necessarily imply external pressure. The economic circumstances and audience groups’ pressure were pulling the ECB at least partly in the same direction (Henning 2015). That publicly the Bundesbank, the Dutch national central bank, and later the German chief economist of the ECB argued against the purchase of public and private debt, while French ECB President Trichet, Italy’s central bank Governor Draghi, and Irish central bank Governor Honohan came out in support of the SMP points to a re-nationalization of monetary policy-making (Alich/Häring 2010; Stark 2010; Vaubel 2011; Sinn 2010; Wyplosz 2011). Contrary to the ECB’s standard operating procedures, the decision in favor of the SMP was not made unanimously, as ECB President Trichet had to concede in an interview with the French newspaper *Le Monde* (Belke 2010; Trichet 2010). While the evidence points to a division between southern European countries plus Ireland and northern European countries, the true constellation of opinion will not be revealed until the ECB starts publishing meeting minutes.

What could lie at the heart of this division? One possibility is that national central banks had differing expectations regarding the possible economic effects of not taking action. While it is possible that the ECB blew the danger out of proportion in order to extract concessions from political actors, differing assessments of the strength of the economic arguments do not lie at the heart of division. After all, Bundesbank President Weber did not point to differing economic assessments when he publicly voiced his criticism of the decision (Alich/Häring 2010). A second possibility has to do with opposing political and public pressure. It is likely that President Sarkozy tried to pressure the French national central bank's governor Noyer. After all, why should he not attempt at home what he also allegedly attempted at the council meeting? The other national central banks' governors from southern European countries and Ireland likely experienced similar pressures, as all national central banks faced a conflict of interest between the need for a European monetary policy and national demands to soften the blow. Public pressure may also have played a role. The general public in each of the Eurozone member states had widely diverging interests and opinions regarding rescue policies, but the fact of it is that monetary policy had been renationalized (Belke 2010).

8.1.3. Conclusion

While the signs of possible pressure on the ECB remain inconclusive and the understanding of the interactions between the ECB and the Eurozone's heads of state and discussions of the measures in the ECB Governing Council remains vague, it is clear that the ECB's credibility has been tarnished. Regardless of the uncertainty surrounding the ECB's decision, the perception of the bank's action is that of low independence. Perception is an important part of central banks' independence, and the relationship between de-jure independence and low inflation is not straightforward. Only if a central bank is also perceived as independent and supported by a societal consent can price stability be achieved (Hayo et al. 2010). The economic arguments for waiving the collateral requirement and the SMP remain unconvincing. Transmission channels were dysfunctional, not because of market failure but because markets sensibly re-estimated the probability of default in countries that had lived beyond their means for years, were running deficits, and had amassed huge piles of debt. In addition, the size of Greece's outstanding debt was never big enough to bring the European financial system down, keeping in mind that national governments and institutionalized bailout funds stood ready to recapitalize banks when necessary. In addition, the ECB could have used the ELA program to support the financial system without transferring credit risk to

the Eurozone. (ELA is granted by the national central bank, and any risks or costs arising from the provision are incurred by the respective national central bank.) While contagion was an issue, the EUR 750 billion EFSF would probably have brought it under control. Finally, the fact that the SMP started buying Greece's debt in large quantities, even though the rescue package meant that Greece would not need to return to the financial markets for the foreseeable future, raises further doubts about the purely economic argumentation. In short, the ECB used monetary policy arguments as an excuse to bail out banks, keep highly indebted countries afloat, and buy political actors time.

From a political point of view, the ECB's decisions are understandable, as it had become a strategic actor in the game. ECB President Trichet's argument that—because the ECB participated as an advisor in drafting Greece's austerity program—it had to accept Greece's bonds in order to be credible and consistent underlines this new understanding of the central bank's role (Hayo et al. 2010). First, a dramatic presentation of the economic situation may well have been the reason that political actors, after six months of indecision, agreed on such a far-reaching program. Second, while the ECB was able to put pressure on political actors, political actors could return the favor. For example, anecdotal evidence suggests that at least French President Sarkozy put considerable pressure on the ECB to support the ESFS with the purchase of debt. It is plausible that he was not the only head of state who, fearing turbulence at home, put pressure on the ECB and his or her respective national central bank. The fact that the ECB announced its program on May 10 without awaiting the market's reactions to EFSF does little to disperse suspicion. In addition, the clear rift in the ECB's decision-making body between representatives of the crisis countries and the Bundesbank indicates that monetary policy was renationalized. In line with audience cost theory, national central bank governors probably felt both political and public pressure at home. That poll respondents in Italy, France, and Spain supported bailout mechanisms prior to May 2010, while respondents in Germany opposed them, indicates the direction of public pressure. Finally, financial actors also pressured the ECB into action, probably less through direct demands than by stoking expectations.

8.2. Emergency Liquidity Assistance during Greece's debt crisis

The second case study analyzed here is the decision to allow the Bank of Greece to support Greece's banking system with unprecedented amounts of ELA during the height of Greece's

debt crisis in 2015. The use and especially the sheer size of the assistance provided have been at the heart of discussions among researchers, politicians, and the public.

ELA, a temporary central bank support mechanism for solvent but illiquid commercial banks, is decided upon by national central banks and can be suspended only by a two-thirds majority of the ECB Governing Council (European Central Bank 2013). As ELA is administered by the respective national central bank, the risks and benefits associated with the granting it are also on the national central bank's balance sheet (European Central Bank 2013).

Between January and August 2015, Greece's commercial banks began to rely to an increasing extent on ELA provided by the Bank of Greece for two primary reasons. First, Greece's commercial banks turned to ELA because their primary liquidity lifeline, the ECB's liquidity, was cut in February 2015, when the ECB declared that it would no longer accept Greece's government debt as collateral. As a result, Greece's commercial banks had to find a new way to access central bank money (Speciale et al. 2015; Bibow 2015). In April 2015 Fitch downgraded Greece's four biggest banks, the National Bank of Greece, Piraeus Bank, Alpha Bank, and Eurobank Ergasias, to CCC in response to a downgrade of Greece, the banks' liquidity constraints, and their declining solvency (Moss 2015). With Greece's financial system basically cut off from markets and the ECB's liquidity operations, ELA became the instrument with which to guarantee liquidity (Speciale et al. 2015). Second, access to liquidity became increasingly important in spring 2015 as customers' withdrawals of their deposits from Greece's banks accelerated in response to political uncertainty. In Greece's January 2015 national election, the left-wing political party Syriza won a clear victory on the promise of an end to austerity and foreign intervention (Speciale et al. 2015). With Greece's future in the Eurozone unclear and a looming danger of default, private capital was fleeing the country. Moody's estimated that approximately EUR 44 billion were withdrawn from Greece's bank accounts after November 2014 (Orrick, Herrington & Sutcliffe LLP 2015). This capital flight would not have been possible without ELA, as Greece's banks would have rapidly faced a liquidity crisis, and capital controls would have had to be imposed to rescue the financial system (Sinn 2015). Instead, by July 2015 ELA had increased from close to zero to almost EUR 90 billion. The Eurosystem took the place of largest depositor in Greece with EUR 130 billion, exceeding the EUR 120 billion in private-sector deposits (Draghi 2015).

On June 28, 2010, the Bank of Greece lost the support of the ECB's Governing Council, so instead of raising the limit for ELA, it froze the funding line, a decision that quickly led to the exhaustion of funds of the ELA facility. On the same day, Greece had to announce capital controls that imposed a ban on cross-border transfers and set a cash withdrawal limit of EUR 60 per day. On July 7, the ECB also tightened the collateral requirements Greece's banks had to meet to access ELA credits (Orrick, Herrington & Sutcliffe LLP 2015; The Economist 2015).

Critics have accused the ECB of delaying the bankruptcy of Greece's already insolvent banking system during the crisis in order to buy politicians more time to solve the negotiation impasse between Greece and its creditors (Götz et al. 2015). ECB President Draghi refuted this claim by stating that Greece's banks were illiquid but not insolvent (Draghi 2015). Assessing the ECB's Governing Council's decision requires analyzing the economic arguments surrounding the solvency of Greece's banking sector and the political reasons for the ECB's decision.

8.2.1. Economic reasons for the use of ELA

Researchers distinguish between two kinds of bank runs: the efficient runs that occur because of a worsening of a bank's fundamentals and the inefficient runs that are caused by wrong assumptions about a bank's financial well-being (Götz et al. 2015). Conventional wisdom draws a clear line in the allocation of responsibilities for responding to these two types of bank runs. The efficient bank run should not cause action by the central bank; solvency crises should be left to fiscal authorities, as the bank's restructuring and the provision of financial aid is distributional and action by the central bank would blur the distinction between fiscal and monetary policy (Reichlin 2013; Pill 2013). Inefficient runs, on the other hand, can be overcome by granting an emergency loan along the lines of the ELA program. Central banks should be in charge of such liquidity crises, as they can create unlimited liquidity (Reichlin 2013; Pill 2013; Götz et al. 2015). A central bank can determine whether it is facing a solvency (efficient run) or a liquidity (inefficient run) problem, but the fact that central banks can effectively eliminate any insolvency risk also points to potential moral hazard problems. Accommodating unsustainable government or bank behavior by providing liquidity can create problems in the future if no steps are taken to improve the recipient's financial health (Pill 2013).

According to the banking supervisors' point-in-time assessment of the common equity Tier 1, total capital ratio, and Tier 1 capital ratio, Greece's banks have sufficient equity (Draghi 2015). As Greece's banks are solvent but illiquid, the bank run was not caused by a worsening of the banks' fundamentals. Not only have they received EUR 38 billion in re-capitalization aid from previous aid packages to Greece, they also passed the European banking stress test in autumn 2014. While some capital shortfalls were detected, those gaps were closed by Greece's banks between the date of the data collection and the publication of the test results (Ruparel 2015). However, as Draghi (2015) points out, the point-in-time assessment of a stress test is not the only possible evaluation of the state of solvency of Greece's banks. The second evaluation is based on a prospective assessment.

While Greece's banks' solvency looks good on paper and analysts believe that Greece's banks still have sufficient collateral, for several reasons their longer-term solvency is at least questionable. First, Greece's banks are facing a deteriorating real economy that is likely to affect banks' balance sheets. The number of bad loans on their books will probably increase, forcing the banks to write off loans and damaging the banks' financial well-being (Giugliano 2015). Second, the close connection between Greece's banking sector and the Greek state has become a liability for the banks' solvency. The solvency of a bank depends on the solvency of its borrowers, so the solvency of Greece's banking system should be doubtful if the Greek state is bankrupt, as former Finance Minister Varoufakis claimed (Moss 2015). Third, the issue becomes more complicated when the solvency of the state depends on decisions and financial assistance on the supranational level. Despite a directive in March 2015 to Greece's banks from the ECB that prohibited Greek banks any further increase in exposure to Greece's sovereign debt, Greece's banks have become the dominant holders of Greece's short-term sovereign debt. In addition, about half of the Greece's major banks' reserves and equity are made up of deferred tax credits (DTCs), that is, cash claims on the Greek state (Moss 2015; Giugliano 2015; Ruparel 2015).the Greek state has also become a majority stakeholder in many of Greece's banks because of the recapitalization that became necessary (Ruparel 2015). As a result, the solidity of Greece's banks depends on the economic well-being of Greece. When markets started to lose faith in Greece, the value of Greece's sovereign bonds on banks' balance sheet suffered. Banks, which are heavily dependent on the Greek state, are facing a disastrous loop. When the Greek state comes close to default, Greece's banks are affected through their holdings of government bonds and DTCs. As a result, they need to be

re-capitalized by the state, which in turn worsens the government's fiscal position and further reduces the value of its sovereign bonds (Mabbett/Schelkle 2015). Referring to these interdependencies, the ECB's Governing Council refused to increase the ceiling for Greece's ELA further and toughened the collateral requirements at the end of June 2015 and beginning of July 2015 (Draghi 2015).

There are a number of reasons for the shaky solvency of the Greek state. First, Greek state finances are being restructured. Greece repeatedly needs financial aid packages from its partners in the Eurozone and from the IMF. It lost access to financial markets in 2010 and has not been able to regain it, so it has relied on the ECB's liquidity provision and ELA to gain access to liquidity. Therefore, it is important for Greece's solvency that Greece can continue to count on the financial support of its partners. The payment suspension of the last installment of the aid package by the Troika that resulted from the slow execution and the incomplete nature of Greece's austerity measures makes the stability of this support questionable. Second, the ECB decided in February 2015 to stop accepting Greece's government bonds as collateral in its own liquidity operations, and in its function as banking supervisor, ordered Greece's banks not to increase their exposure to Greece's sovereign debt (Moss 2015). Both decisions convey little trust in the solvency of the Greek state. In addition, Greece missed a payment to the IMF on June 30, 2015 and ended its participation in the bailout program, making it difficult for the ECB to continue accepting Greece's government securities as collateral under ELA (Jones 2015). Third, granting large amounts of ELA against collateral guaranteed by the Greek state has made the Bank of Greece extremely vulnerable. By July 2015 the Bank of Greece had granted ELA worth EUR 80 billion, but the Bank of Greece's capital stands at only about EUR 4.5 billion plus EUR 36.5 billion in shares of the Eurosystem's monetary base. Having to recapitalize the Bank of Greece would render Greece insolvent (Sinn 2015). To sum up, from the prospective assessment view, the bank run on Greece's banks that occurred during the first half of 2015 appears to be rational, given the looming default of the Greek state.

From an economic point of view, Greece's banks' solvency is therefore doubtful. While the point-in-time assessment suggests that they are solvent but illiquid, a prospective assessment of the situation suggests otherwise. The Greek state itself was on the brink of default during the first half of 2015, an event that would surely have pushed most of Greece's lenders into bankruptcy. The discussion of the point-in-time and prospective assessments of solvency

shows that the distinction between liquidity and solvency problems is difficult to draw and that there is a significantly large grey area in practice (Reichlin 2013; Pill 2013). As Helge Koenig, chair of Europe's Single Resolution Board pointed out, "The line between ELA and delaying a collapse is fluid" (Speciale et al. 2015). The solvency of Greece's banking system depends mostly on the choice of assessment: point-in-time versus prospective.

8.2.2. Audience group pressure and the use of ELA

According to authors like Götz et al. (2015) the ECB's decision on the solvency of the banking system and, therefore, on the provision of ELA should be based solely on point-in-time assessments: As long as Greece is considered solvent or receives financial aid from the Eurozone, the banking system should be considered solvent as well. This argument is based on the idea that political decisions should be left to democratically legitimized actors. While Greece's banking system can rely on ELA, political decision-makers have the time to decide. If ELA were discontinued, the resulting collapse of Greece's financial system would likely push the real economy into the abyss and make a state default more probable, which would constrain the political decision-making process and its options (Götz et al. 2015). The ECB's stance is more complicated. While Draghi (2015) points out that ELA is neither unlimited nor unconditional, the ECB has always operated under the assumption that Greece remains within the Euro and that Greece's government will deliver on its promised reforms. At the same time, Draghi points out that the ECB applied a prospective assessment as well by including the debt crisis negotiation and its effects on government bonds in the evaluation of Greece's banking sector's solvency (Draghi 2015). In other words, while the ECB is not ignoring the results of the prospective assessment of Greece's financial system, it is not willing to act decisively on its outcomes. This inconsistency between argumentation and action by the ECB illustrates the political dimension of ELA.

As an audience group, the political actors involved had a vested interest in convincing their national central banks and the ECB to keep financial support for Greece available. Creditors and well as Greece's negotiators were facing strong opposition from their respective publics. While in many creditor states public opinion was hostile toward any concessions, Greece's negotiators were facing similar opposition to anything but an end of austerity and foreign intervention. With the risk of uncontrolled and perhaps accidental default off the table, creditors could negotiate much more aggressively and with less time pressure. In addition, even if they publicly condemned it, political actors from creditor countries probably tacitly

supported the use of ELA, as it meant that less of Greece's financial needs had to be financed via taxpayers' money from creditor states. ELA itself worked like a financial assistance program because of the importance of Greece's financial sector for state finances. From Greece's point of view, ELA permitted the government to continue negotiations without sliding into insolvency. The Greek side also knew that the longer the stand-off continued, the harder a default would be on its Eurozone partners because of the daily rising levels of ELA, as ELA had become the most important source of liquidity for Greece's financial system and the Greek state. Unable to reach an agreement, politicians from creditor states and Greece forced the ECB to keep banks and the Greek state alive or risk a financial system meltdown in Greece (Reichlin 2013). As a result, the ECB had to succumb to being financially and fiscally dominated (Mabbett/Schelkle 2015).

Regarding the problem of financial dominance, the ECB used generous liquidity provisions to keep alive many banks in Greece alive that were struggling with liquidity and solvency issues. Banks acquired substantial amounts of their government's debt, relying heavily on state guarantees, so the possibility of sovereign default would put their creditworthiness at risk. Especially the DTCs that make up the majority of banks' capital would be worthless in the case of a default (Speciale et al. 2015). Therefore, the risk of the financial system's collapse forced the ECB to continue ELA, as financial markets in the Eurozone were segmented along national borders, cross-border financial flows had dried up, and Greece's banks were cut off from financial markets (Reichlin 2013; Mabbett/Schelkle 2015). It is this segmentation along national lines that weakened the political support for the ECB's action in other Eurozone countries (Pill 2013). Greece's sovereign debt crisis had, through the disentanglement of financial markets in the Eurozone, become mostly Greece's problem again. Nevertheless, the liquidity needs of Greece's financial system replaced economic fundamentals as the basis for monetary policy decisions. The ECB is also facing the risk of fiscal dominance, as the Greek state also depends on Greece's banks for liquidity. As Greece's banks have become the almost sole purchaser of Greece's short-term debt, they have become important for the rollover of Greece's sovereign debt (Ruparel 2015). The Bank of Greece provided ELA credit using state-guaranteed collateral and then used by Greece's banks to buy Greece's new government bonds. By using sovereign debt instruments as collateral and then using the liquidity to purchase additional Greek sovereign debt, ELA became government financing through the back door (Sinn 2015; Reichlin 2013; CESifo Group Munich 2015). The fact that there was

no legal objection to the monetization of private assets was used to circumvent the constraints regarding the purchase of sovereign debt (Bibow 2015). The economists Sinn and Fuest estimate that, since the beginning of 2015, the Greek state has received EUR 10 billion in financing through ELA, which exceeds by far the total amount of possible emergency funds discussed in negotiations with Greece's debtors (CESifo Group Munich 2015). According to Sinn and Fuest, the ECB thereby delayed the insolvency of the Greek state and consequently violated the principle of non-intervention by the central bank in solvency issues (CESifo Group Munich 2015). The ECB's deciding to continue ELA even after Greece missed its payment to the IMF, the EFSF's declaring Greece's government formally insolvent on July 3, and Greece's announcing a referendum in which the government campaigned against a deal with debtors can hardly be explained along economic lines (CESifo Group Munich 2015; Jones 2015). Instead, these were political decisions on behalf of the ECB's Governing Council. The incomplete nature of the Eurozone system, especially the lack of a fiscal backstop, means that the Eurozone would have to deal with substantial cross-border transfers resulting from the Eurozone's balance sheet if there were a sovereign default. Sovereign default and the resulting risk of denomination of debt would have damaged the monetary-transmission channels because of financial fragmentation. In order to ensure the functioning of monetary policy across the whole Eurozone, the ECB had little choice but to support Greece (Mabbett/Schelkle 2015).

Finally, the ECB as an institution and a player also had several reasons for keeping the Greek state solvent but always on the brink of disaster. First, it ensured that the ECB did not have to make a decision that would likely have resulted in Greece's default. Second, it made sure that the Greek side could not walk away from negotiations, as financial support was kept to a minimum. Third, ELA allowed the ECB to buy additional time for politicians to reach an agreement on financial aid for Greece. Draghi (2015) explains that the early discontinuation of ELA would have been a political decision on the future composition of the Eurozone. In other words, pulling the plug on Greece's ELA would probably have resulted in a breakdown of Greece's financial system, Greece's default, and ultimately the country's exit from the Eurozone, a decision Draghi believed that should be left to politicians and not central bankers (Draghi 2015).

8.2.3. Conclusion

To conclude, granting ELA to Greece's banks during the first half of 2015 was a difficult decision that can be explained only partly on economic grounds. While the ECB has repeatedly pointed out that Greece's banks were illiquid but solvent throughout the whole crisis, a prospective assessment casts doubts on this statement. The rapid deterioration of Greece's economy, coupled with banks' capital that relied heavily on the Greek state's solvency, and the high level of political uncertainty surrounding Greece's membership in the Eurozone would have justified much shorter haircuts on the collateral provided by Greece's banks or even an end to the ELA. While the likelihood of a Greek default kept growing, the ECB only banned Greece's government debt from being used in the ECB's own liquidity operations. However, the Bank of Greece was not hindered from using the same collateral the ECB deemed too unsecure for its own operation in its provision of ELA. As a result, the ECB allowed not only the financing of the massive capital flight from Greece but also the rollover of Greece's sovereign debt. Without ELA, Greece's financial system and government would have been forced into default or accepting a new financial aid package much earlier. However, the ECB used the assumption that Greece would remain within the Eurozone in an attempt to avoid the decision that a prospective assessment of Greece's banks' solvency situation would have dictated. By providing Greece's financial system with excessive liquidity, the ECB prevented the insolvency that would result from rollover risks and ensured that its action, at least on paper, remained within the limits of the Eurozone's treaties. Eurozone politicians' had, through inactivity, forced the ECB into financing Greece's financial system and state. Thus, the ECB accepted political dominance as well as fiscal and financial dominance.

8.3. Eurozone Quantitative Easing

On January 22, 2015, after months of debate, the ECB announced that it would launch QE to counter deflationary pressures in the Eurozone through the purchase of government debt on a large scale. At the time of the announcement, inflation had turned negative for a few months and had been below 1 percent for more than year (Dunne et al. 2015). The ECB's Governing Council's view was that the drop in crude oil prices would further embed expectations of low growth, inflation, and increased availability of credit (Dunne et al. 2015). Eurozone QE, named the public sector purchase program, was added to the already existing asset-backed securities purchase program (ABSPP) and the covered bond purchase program 3 (CBPP3) to

form the expanded asset purchase program (expanded APP) (Dunne et al. 2015; Tonveronachi 2015). Under QE, the ECB committed to purchasing EUR 1 trillion worth of debt by September 2016 or until the Governing Council was sure that inflation would reach the ECB's inflation goal of just below 2 percent (Dunne et al. 2015). QE became operational in March 2015 with monthly purchases of EUR 60 billion. Most of the EUR 60 billion was earmarked for public sector securities, including sovereign debt and debt issued by European agencies or other supranational entities (Dunne et al. 2015; Tonveronachi 2015). The ECB Governing Council also decided to keep purchases in line with the ECB's capital key and committed only 20 percent of the program to loss-sharing, with the remaining 80 percent to be bought by the respective national central banks and to remain on their balance sheets. The ECB also decided to buy no more than 25 percent of each issue and no more than 33 percent of any member state's entire debt. Through these provisions, the ECB hoped to counter the fear of risk mutualization and government financing in the Eurozone. If a country's debt did not have an investment-grade rating, a waiver would be granted if the country's debt either fulfilled the ECB's minimum collateral requirements or the country participated in a Eurozone rescue program (Tonveronachi 2015; Credit Agricole 2015; European Central Bank 2015).

In contrast to the already existing asset purchase programs, the public sector purchase program's goal was to battle deflation and to push households and firms to increase their consumption and investments by reducing interest rates through asset purchases, not to unblocking monetary policy transmission channels (Tonveronachi 2015). The goal was to push inflation back up toward the 2 percent goal by stimulating the European economy through a substantial expansion of the ECB's balance sheet, thereby firmly anchoring the mid- to long-term inflation expectations (Weidmann 2015b; BBVA 2015; Dunne et al. 2015).

According to the ECB, QE is already generating some success in reducing economic slack and generating growth through reduced borrowing costs for companies and households (Draghi 2015). In addition, inflation expectations have stabilized, since inflation is back in the positive territory. While inflation rates remain low, the ECB expects a rise by the end of the year (Draghi 2015). This optimism is only partly shared by academics and financial institutions' analysts, as empirical results regarding the effectiveness of sovereign debt purchasing programs have been inconclusive (Bernoth et al. 2015). While QE is expected to have a positive impact on growth rates, the risk of deflation remains, as QE will require a long time to increase inflation rates to the ECB's target of close to 2 percent (BBVA 2015;

Delivorias 2015). In addition, mirroring the debate in literature, analysts are not convinced of the ultimate success of QE. Analysts from PwC, ABN Amro, Fidelity Worldwide Investment, and other institutions point out that high debt levels and low international competitiveness are at the heart of slow European economic growth, and as long as the Eurozone's governments are not willing to engage in deep structural reforms, business will likely remain reluctant to invest, especially as long as the debt overhang persists (Jost 2015; Kollewe 2015; Praet 2015). Analysts also point to the already low interest rates that will likely limit QE's impact (Kollewe 2015). According to Georgiadis and Gräb (2015), the only significant effects of the Eurozone QE so far has been the Euro's depreciation and the boost in equity prices around the world. Rather than leading to portfolio rebalancing or increased bank lending, QE convinced market participants that the ECB would not tighten monetary conditions in the near future (Georgiadis/Gräb 2015). The debate illustrates the persistent skepticism with regard to the QE's effectiveness in the Eurozone. In addition, the ECB's past efforts to help the Eurozone's economy recover have only increased the Eurozone's dependence on central bank money without raising inflation and growth rates significantly (Akagawa 2015).

Despite ultra-low inflation rates, the decision to launch QE in March 2015 was not made unanimously but by majority vote. While there has been consensus about the legitimacy of the purchase of government bonds on secondary markets according to the ECB's capital share as a monetary-policy tool, there was no agreement on the necessity for QE at this stage (Tonveronachi 2015).

The next section assesses the legitimacy of QE as a monetary policy instrument and the economic and political reasons for the launch of the Eurozone QE.

8.3.1. Assessment of QE's legitimacy

The debate surrounding the use of QE in the Eurozone after interest rates have hit the zero lower bound usually follows three lines of argument: the purchase of sovereign debt is illegitimate, the purchase of sovereign debt is ineffective, and the side effects of asset purchases are damaging (Winkler 2015b). This assessment of QE begins with an analysis of QE's legitimacy as a monetary instrument and its appropriateness in the Eurozone context.

Perhaps the question concerning the legitimacy of sovereign debt purchases on secondary markets has been answered. The ECB's Governing Council unanimously accepted QE as a legitimate monetary policy instrument in January 2015 (Tonveronachi 2015). Despite fierce

critique among public opinion and some academics in Germany, Bundesbank President Weidmann voted along with his colleagues on the question of legitimacy, even as he voted against its use (Winkler 2015a). However, the legitimacy of QE in the Eurozone is difficult to assess. The Governing Council did not answer the question concerning under what circumstances asset purchases should be considered legitimate. In light of the difference between the voting on legitimacy and that on the use of QE in March 2015, it is clear that the members of the Governing Council differed with regard to the requisite circumstances. According to Winkler (2015b), the dispute can be explained based on the economic theory dominant in each of the members' respective national central banks. Most of the central bank governors followed Fisher's, Keynes', and Friedman's argument that failure to meet the ECB's inflation target would result in substantial costs; although inflation fell short of the target, this school of thought suggested that not using QE would have been irresponsible (Winkler 2015b). A number of scholars agree, including Fritsche and Tarassow (2015), who argue that the institutional malfunction that makes fiscal policy coordination undesirable comes at considerable cost. In the case of the Eurozone, political blockade and haggling over austerity forced monetary policy authorities to adopt an aggressive monetary stance, especially in light of the deflation risk (Fritsche/Tarassow 2015). The minority of central bank governors, including Bundesbank President Weidmann, adhered to a different school of thought, based on Hayek. According to this theory, low inflation rates or even mild deflation do not need to be combatted by monetary policy, although action to increase economic activity using interest-rate setting or unconventional monetary-policy support for the banking sector can be tolerated. The purchase of sovereign debt is a different matter entirely, as its negative side effects mean that it is warranted only in the case of a deflationary spiral, a situation not yet present in the Eurozone (Winkler 2015b). One of the most important negative side effects is the effect of QE on government finances. Because of QE's incomplete nature, the Eurozone is faced with a constant struggle for dominance between national fiscal and Eurozone-wide monetary policy. The purchase of sovereign debt on secondary markets might, in this context, undermine fiscal discipline as one of the Eurozone's core conditions (Winkler 2015b). Therefore, the dispute between Bundesbank President Weidman and ECB President Draghi is not necessarily one of principle. Both accept QE as a monetary policy tool, but they differ in their assessments of the circumstances and QE's possible side effects. The Governing Council faces two core dilemmas: an economic one and a political one. The economic dilemma is the decision about the economic necessity for QE in the Eurozone, including the

question concerning of the instrument's effectiveness in the context of a common currency without a fiscal or political union. The political dilemma centers on the question concerning the extent to which QE will undermine the incentive for economic reforms in struggling Eurozone countries. In the following section, I will turn to the economic assessment.

8.3.2. Economic reasons for QE

While most of the literature suggests that the self-enforcing nature of the deflationary spiral requires forceful, credible monetary policy actions, Borio et al. (2015) point out that price deflations have not always resulted in negative growth rates. To the contrary, with the exception of the Great Depression, the price deflations of goods and services had a lower impact on growth rates than did the price deflations of assets. Nevertheless, most of the literature holds little disagreement with regard to the gravity of self-enforcing deflation. Usually one of the results of a decline in aggregate demand that forces companies to cut prices repeatedly, deflation affects the economy through two channels: First, deflation increases the real value of debt if debt is fixed in nominal terms, as an increase in real value pressures on debtors, and a lower demand for credits can pressure creditors and may cause a credit crunch. Second, expecting falling prices, households and companies postpone consumption and investments indefinitely (Fritsche/Tarassow 2015).

If agreement about the negative outcomes of deflationary spirals is almost universal in the literature, the question at the heart of the debate concerns whether the Eurozone was on the brink of a deflationary spiral. Most of the ECB's Governing Council seem to have believed so. The ECB announced the QE in January 2015 in an attempt to fulfill its price stability mandate by reducing the risk of a prolonged period of low inflation. According to the ECB, at the time of the decision, most indicators of actual and future inflation had reached historic lows. To battle deflation's potential effects on wages and price-setting, the ECB Governing Council decided that a strong response was necessary to prevent a deflationary spiral (European Central Bank 2015). Measurements of inflation expectations that focus on the actual behavior of market actors instead of self-reported expectations have confirmed the ECB's view. Breakdown inflation, which is defined as the yield differential between nominal debt and inflation-indexed debt and is many analysts' preferred measurement of inflation expectation, has trended downward (Badel 2014). As calculated by Eurostat, core inflation adjusted for energy and unprocessed food reached its lowest levels in January 2015 at 0.6 percent, with forecasts predicting a further reduction to -0.4 percent before a gradual increase

to 1.4 percent in 2020. However, inflation rates in the Eurozone have been variable. While in Germany only 19 percent of prices have been declining, considerably more have declined in crisis countries like Spain and Portugal (Bernoth et al. 2015). As Fritsche and Tarassow (2015) point out, the share of products with falling prices has increased in the past months, reaching levels of up to 80 percent in Greece. Therefore, for Spain, Italy, and Greece, deflation is not just a prospect but reality as prices across all product groups are falling. However, the ECB's assessment of the situation in the Eurozone is not universally shared. Critics, most prominently Bundesbank President Weidmann, have pointed to low oil prices as the main source of low inflation rates, but this phenomenon, which is likely to be short-lived, serves as a massive support program for the Eurozone's economy as companies pass on some of their savings to consumers. The extent to which a Eurozone economy benefits from low energy prices is not uniform but depends on the energy intensity of the country's economy, the duration of the decline in oil prices, and the stability of income in the country. Another source of the low inflation rate is deflationary pressures in the crisis countries that are due to economic restructuring. As crisis countries can no longer use currency devaluation as a shortcut to competitiveness and lower deficits, they have to devalue internally to achieve these goals. As a result, either production costs must fall or productivity in the tradable sector must rise, making the tradable sector more profitable than the non-tradable sector. As long as the adjustment process continues, low import demand, underutilization of capacity, fiscal consolidation, and balance sheet adjustments through debt reduction will persist, leading to deflationary pressure on prices. Therefore, deflationary developments in countries like Spain and Greece could be attributed to the side effects of a generally desirable internal devaluation. However, the overall low inflation rates in the rest of the Eurozone complicate the situation in the crisis countries, as they have to push their own inflation rates down even farther in order to achieve real depreciation (Winkler 2015b; Weidmann 2015a, 2015b; Bernoth et al. 2015; Jost 2015; Polak 2014).

Therefore, for the critics the low inflation rates do not point to a deflationary spiral, which they see as only a remote possibility, but to a variety of factors that monetary policy can influence to only a minimal degree.

A core question in the debate about the economic necessity for QE and an important indicator for monetary policy makers concerns to what extent medium- to long-term inflation expectations have changed. Anchoring inflation expectations works along three parameters:

expectations must be stable, moving only in a narrow inflation-rate band; uncertainty about the realization of future rates should be low, as uncertainty is considered a sign of low trust in the central bank's ability to control inflation, shaking inflation expectations; and expectations should react only marginally to political and economic news, reflecting the trust participants place in the central banks' ability to keep inflation in check (Scharnagl/Stapf 2014). According to Scharnagl and Stapf (2014), average inflation expectations for the Eurozone have decreased over the past couple of years, and uncertainty regarding future inflation rates has risen because of the European debt crisis. Other authors confirm declining inflation expectations among professional forecasters and households (Fritsche/Tarassow 2015). At the same time that the effect of the ECB's communication and the Eurozone's macroeconomic news on inflation expectations has declined, macroeconomic news from crisis countries has gained influence. Heterogeneity among Eurozone countries in such areas as bond yields and inflation rates and resulting deflationary pressures have increased the effect of macroeconomic news from debt-crisis heavyweights like Italy. The observations point to increasing disagreement among market participants about the central banks' ability to handle the potential for extreme outcomes like high rates of inflation and deflation (Scharnagl/Stapf 2014; Fritsche/Tarassow 2015).

To sum up, while optimists point out that the fall in energy prices and crisis countries' internal adjustments are the core sources of low inflation rates, the weak economy and the high debt levels mean that deflation could have grave effects on the Eurozone. That deflationary pressures are partly the result of debt-depressed demand exacerbates the problem (Legrain 2015). Overall, the ECB's decision to engage in QE seems to be mostly the result of mounting unease about deflationary pressures, a fear that the general public would get used to stagnating prices, the disappointing results of previous measures, the feeling of urgency about battling falling inflation and inflation expectations, and significant public pressure to act (Bibow 2015; Jost 2015; Bernoth et al. 2015). As banking analysts point out, considering that fiscal policies were still heavily constrained by deleveraging and that it had few alternatives to QE, the ECB was forced to act (Kollewe 2015; Blackstone et al. 2015; Subacchi 2015).

The success rate of QE in the US, the UK, and Japan is mixed. Central banks have employed QE in the US and the UK since 2008. According to the Fed, QE had some success in reducing the unemployment rate by 1.5 percent in 2012 and returning markets to normal during the crisis, and the Fed's board concluded that QE had helped job growth (Delivorias 2015). The

cheap money provided by the Fed allowed market participants to dump assets that had suddenly become toxic (Seith 2014). Researchers at the Bank of England confirmed the positive effects, finding that 1 percent of GDP in purchases translated into 0.36 percent in GDP growth and a 0.38 percent rise in the consumer price index in the US and 0.18 percent in GDP growth and a 0.3 percent rise in the consumer price index in the UK (Delivorias 2015). In Japan, QE was successful only for a limited time. The strategy, called “Abenomics” for Japanese Prime Minister Abe, generated a short high in 2013 before the inflation rate and GDP growth started to drop again (Seith 2014). Despite launching its third round of QE in late 2014, Japan is still trapped in low growth, which calls the program’s efficacy into question (Kollewe 2015). In addition, the yen’s depreciation did not have the necessary strong effect on exports (Delivorias 2015). Despite the massive influx of central bank money, households and businesses remain too indebted to borrow more, and banks have failed to clear their books of bad loans. According to Seith (2014), Japan provides a good example of QE’s low effectiveness when not coupled with much needed structural reforms.

There remains some disagreement in the literature about the effectiveness of each transmission channel. Some studies see a strong effect of QE on the long-term interest rates of government bonds, especially at the beginning of QE (Seith 2014; Bernoth et al. 2015), but later rounds of QE had only small or even no statistically significant effects (Bernoth et al. 2015). Other scholars claim that government bond purchases not only benefitted long-term interest rates of government bonds but also affected corporate bonds and, to a much lesser extent, the foreign exchange rate (Bernoth et al. 2015). On the other hand, Legrain (2015) contends that QE’s effect on the foreign exchange rate was the most important one and that, while it artificially inflated asset prices without increasing household consumption and corporate investments, the resulting currency depreciation had a strong effect on growth and inflation (Legrain 2015).

As for QE in the Eurozone, Dunne (2015) argues that QE is ineffective as a monetary policy tool, as the mechanism through which QE is intended to work is the expansion of money supply, which increases asset prices, lowers bond yields, and reduces interest rates.

The first core assumption of those who support Eurozone QE is that current bank lending has been decreasing because of restricted access to liquidity. According to theory, banks should be eager to lend liquidity to the real economy in excess of their capital reserves to make a

return. This transmission channel is called the bank lending channel (Dunne et al. 2015; Wyplosz 2014). However, that banks' hold reserves in excess of EUR 100 billion in the Eurozone creates a flaw in the liquidity-shortage assumption. The two other theories are that there is low demand for loans in the real economy because of slowly growing economies in the Eurozone and that banks are too risk-averse to lend (Wyplosz 2014). Banks are still deleveraging in order to fulfill new regulations and pass European stress tests while, at the same time, ongoing weak economic growth reduces corporate rates of return and high unemployment makes lending to private households risky (Wyplosz 2014; Subacchi 2015). If the observations of low loan demand and risk aversion are correct, there is little reason to believe that QE will be effective, as similar to previous liquidity provisions, liquidity will not filter through the banking sector into the real economy (Ruparel 2015). After all, the ECB's quarterly lending survey shows historic lows across all loan categories (Delivorias 2015).

Another channel through which QE is supposed to work is the portfolio re-balancing channel. QE forces additional liquidity into assets like corporate bonds and equity, driving down their interest rates and increasing their value. Similar to the bank lending channel, the portfolio re-balancing channel is unlikely to have much of an impact on the investment and consumption behavior in the Eurozone (Dunne et al. 2015). Interest rates have already dropped to historic lows because of previous interventions, without increasing economic activity or inflation. Almost a third of European debt, ranging from money market debt to sovereign debt, has shown negative interest rates for some time (Ruparel 2015; BBVA 2015; Delivorias 2015; Bernoth et al. 2015). In addition, unlike those in the UK and US, non-financial companies in the Eurozone receive roughly 85 percent of their funding from banks instead of capital markets, and households have considerably less exposure to financial assets. Therefore, the wealth effect of lifted asset prices will remain small and QE will probably be less effective in sparking more investments and consumption in the Eurozone than in other countries, and its success will depend to a great extent on the banks' willingness to lend (Ruparel 2015; Delivorias 2015; Randow 2015; Subacchi 2015).

The third channel through which QE works, the signaling channel, is likely to have a positive impact on inflation expectations through the purchase of inflation-linked assets and boosted confidence in the ECB's promise to increase inflation. QE signals that the ECB is committed to its inflation target and that it intends to keep interest rates at low levels for the foreseeable future (Credit Agricole 2015; Dunne et al. 2015). In addition, QE will incentivize bond holders to

sell their euro-denominated bonds and convert the proceeds into other currencies, thereby driving down the Euro's value (Subacchi 2015). While the effect of signaling is often difficult to assess, as financial markets usually at least partly anticipate central bank measures, Georgiadis and Gräb (2015) identify the announcement of QE as the major reason for the Euro's devaluation. In addition, banking analysts suggest that the ECB will adjust the size, pace, and composition of the program if necessary, boosting confidence in the ECB's ability to achieve its desired outcomes (Credit Agricole 2015).

8.3.3. Audience group pressure and QE

The decisions for QE led to a lively debate within the ECB and among politicians, academics and the general public (Delivorias 2015). Commentators in the Eurozone's biggest economy, Germany, claim that the tradition of stability-oriented policy has been abandoned (Fritsche/Tarassow 2015).

The question concerning why Eurozone QE is so different from Fed-style QE is especially important. The easiest approach to QE would have been to buy government debt on large, liquid secondary markets. For example, the Fed and the Bank of England followed this approach, acquiring 20–30 percent of their respective sovereign bonds (de Grauwe/Ji 2015; Ruparel 2015). However, for the ECB this technically easiest and most promising approach has proven to be politically difficult. Its blurring of the borderline between fiscal and monetary policy has resulted in fierce resistance from Germany's Bundesbank, administration, and academics, forcing the ECB to alter its QE program (de Grauwe/Ji 2015). Therefore, the alternations were essentially the result of political considerations.

One of the core arguments made against the introduction of QE is that it would reduce governments' incentives for deep structural reforms. While this argument appears to be an economic argument, it is a political one. Without the ability to coerce Eurozone governments into responsible fiscal and economic policy, policy-makers must rely on market pressure to convince unwilling governments. Germany's administration fears that, by increasing growth and decreasing borrowing costs, the ECB will lift pressure off reform-weary Eurozone governments (Blackstone et al. 2015), a possible explanation for its fierce resistance. The critics anticipate that political pressure will keep interest burdens low in the long run but fear that market pressure and its disciplinary effect on Eurozone governments will once again crumble (Weidmann 2015a; Weidmann 2015b; Bernoth et al. 2015; Kollewe 2015;

Darvas/Merler 2013). In addition, there is concern that QE will distort the market for government debt, reviving the illusion that debt from all Eurozone countries is equally safe (The Economist 2015) and tempting market participants to ignore once again the risks associated with investing (Seith 2014). What's more, primary market actors might acquire only certain sovereign bonds because they can off-load them to the respective national central bank on secondary markets (Darvas/Merler 2013). The closer the time of the purchases of debt on secondary markets is to the date of the issuance of the debt on primary markets, the lower the risk for the purchaser on primary markets (Deutsche Bundesbank 2012). As Ruparel points out, free-riding by politicians is most likely not sustainable in the long run, especially as the Eurozone remains reluctant to reform. Examples of such reluctance are plentiful, including the failure to make the Stability and Growth Pact more effective in controlling fiscal deficits and establishing a working banking union (Ruparel 2015; Akagawa 2015). Experience from the US and Japan suggest that structural reform is key, but there is little enthusiasm for reform in some of the Eurozone's biggest economies, including Italy and France (Blackstone et al. 2015). Thus, the effects of QE will be short-term at best, buying governments additional time to restructure their economy. Monetary policy alone will not be enough to ensure sustainable and durable economic recovery (Bernoth et al. 2015; Draghi 2015; Blackstone et al. 2015; Akagawa 2015).

At the same time, the ECB is in danger of losing its independence to fiscal dominance. Central banks have become the Eurozone governments' biggest creditors, and their swelling balance sheets might lead to difficult interdependencies between fiscal and monetary policy (Bernoth et al. 2015). Should markets lose confidence in sovereign debtors, the ECB would be forced into buying ever more debt in order to avoid massive losses. Both events would seriously damage the ECB's reputation (The Economist 2015; Darvas/Merler 2013).

As a result of these considerations and criticism about QE, the ECB decided to purchase government debt solely on secondary markets and in line with the ECB's national capital key. Although it was still potentially borderline debt monetization, the first part of the decision was based on the Eurozone treaties' prohibition of government financing through the money printing press. The split of purchases along the ECB's capital key was introduced only after considerable pressure from Germany (Darvas/Merler 2013). Unlike the US and the UK cases, purchases of government debt that did not follow the capital key would result in redistribution of financial resources, as there are no Eurozone-wide debt instruments or common fiscal

backstops for the ECB (Deutsche Bundesbank 2012). While the split of purchases along the capital key prevents the redistribution of financial resources, it also undermines the program's effectiveness. The ECB will purchase EUR 7.2 billion from European institutions and other supranational institutions and spend the remaining EUR 52.8 on Eurozone government bonds (Bernoth et al. 2015). Of the total EUR 1 trillion, only a small amount will be used to buy the sovereign bonds of the countries that are most in need of cheap capital and where deflationary pressures are highest. For example, only 15 percent of all purchases will be of Spain's government debt, while almost 25 percent of purchases will be Germany's (Ruparel 2015). To be maximally effective, QE should focus on the worst-indebted countries, as their sovereign debt is already concentrated on their national central banks' balance sheets (Wyplosz 2014). Instead of closing the interest rate spread gap between the crisis countries and the Eurozone core countries, the need to purchase German and other low-yield or even negative bonds will widen the gap, especially considering that market participants already seek the sovereign bonds of countries like Germany as zero-risk bonds (Jones 2015; Mabbett/Schelkle 2015). However, without sufficient political support, it is unlikely that the ECB will be able to ignore its decision to purchase government debt in line with its capital key, even though further reduction in Germany's sovereign and corporate bonds is unlikely to increase consumption or investment (Jones 2015; Ruparel 2015). Germany's households and companies have enough cash that they choose not to spend, and its economy is already operating close to capacity (Ruparel 2015). At the same time, these limits might re-install a truly Eurozone-wide monetary policy and ensure that inflation, not government deficit financing, is at the heart of QE. By adhering to the capital key quota, the ECB limits the risk of unduly supporting debt-ridden countries.

The second part of the ECB's decision that makes Eurozone-style QE different to traditional QE is the low risk-sharing, which also appears to be largely a political concession (Credit Agricole 2015). While the ECB has repeatedly suggested that a default outside the Eurozone would be illegal, the question concerning how to handle government default risk has been a major concern in Germany (Legrain 2015). The example of Italy, the Eurozone's biggest bond market and the living embodiment of the "too big to fail" theory, shows that the risk of default would put the ECB into the difficult position of having to face hefty losses, most of which Germany would have to bear, or continuing to purchase the debt of the by-then-insolvent Italy (Legrain 2015). By agreeing to only 20 percent risk-sharing, the ECB avoided the

mutualization of risk for the remaining 80 percent of the program, as long as any country defaults only within the Eurozone (Bibow 2015). While some academics stress the beneficial side of the agreement, as the central banks in the Eurozone's periphery do not have to share their higher interest proceeds with the whole Eurozone, others point to the fact that, past a certain threshold, possible losses by the respective national central bank will outweigh the gain from additional debt purchases (Credit Agricole 2015; Jones 2015).

Therefore, QE is not designed only with economic necessities in mind; it is often a political compromise. The legality of QE, the *pari passu* clause, and its launch in March 2015 were traded against inflation targeting as the sole objective, purchases along capital shares, and limited risk-sharing (Tonveronachi 2015).

Why did the ECB give in to these political considerations? An examination of the interests of core audience groups can provide the answer. One explanation is that the repeated outvoting of the Bundesbank at ECB meetings led to the hardening of political and public opinion in Germany, which might have reduced Chancellor Merkel's room to manoeuvre. Despite signaling that Germany is opposed to monetary easing and reducing pressure on profligate Eurozone countries, Merkel publicly assured the ECB's independence to act as it sees fit (Ruparel 2015; Warner 2015). The time when Germany's government at least tacitly supported the ECB in its quest to support debt-ridden Eurozone countries, despite the treaty's prohibition of government financing, may have come to an end because of the rising political and economic costs (Streeck 2015). The ECB's introduction of QE years after central banks in the US and UK did so is probably due in part to Germany's opposition to it. Both Germany's administration and the Bundesbank have consistently voiced their concerns (Warner 2015). According to some scholars, opposition to expanding money supply for the fear of inflation has become a matter of principle in Germany, even though falling prices have recently been a greater threat (Randow 2015). Others see an obsession with legality and rules at the heart of Germany's opposition, that its resistance can be explained by historic fears of inflation, misplaced incentives for indebted countries, and the fact that QE might be illegal under the Eurozone treaties (Warner 2015). While ECB President Draghi could probably have received sufficient votes for traditional QE, he chose to adjust the program in a way that—at least in principle—was acceptable to Germany. As Fratzscher, the head of the German think-tank DIW, points out, Germany's support is vital for the ECB's monetary policy, as a rift would have put the Eurozone's two most influential powers, Germany and the ECB, at odds (Barkin

2015). Before the January 2015 ECB decision, a high German official stated off the record that the ECB had to be careful not to cross the red line of government financing if it were to prevent a fierce reaction from Germany and that a low level of risk-sharing, an idea first floated by Bundesbank President Weidman, could be an acceptable solution for Germany (Barkin 2015). Therefore, ECB President Draghi's doctrine of "whatever it takes" appears to have limits that are set by the German members of the Governing Council. The price for Germany's support was limiting debt mutualization (Subacchi 2015).

Despite the changes to QE, audience groups in the Eurozone periphery hailed its launch as a victory over Germany. According to Streeck (2015), although Draghi is an outspoken neoliberal, he is regarded in Italy as a hero for forcing Germany into QE, as Germany had to compromise and accept southern European demands (Warner 2015). Akagawa (2015) observes that political pressure likely played a significant role in shoring up support for QE among governors of southern national central banks and that top Italian officials had tried to convince ECB President Draghi of QE in November 2014. For many Eurozone governments, monetary policy is an attractive way to support their economies through cheap liquidity and depreciation instead of reform (Akagawa 2015). QE also allows countries in the periphery to continue issuing high levels of sovereign debt at lower interest rates (Randow 2015). In fact, both Spain and Italy used the first four months of 2015 to place 40 percent of their total yearly issuance. Maturities have started to lengthen as well (BBVA 2015). Lower interest rates decrease the pressure on fiscal budgets, giving governments more room to maneuver (Bernoth et al. 2015). For governments, financing through monetary policy is worthwhile, as it allows politicians to reduce or at least postpone the pressure for structural reform (Deutsche Bundesbank 2012). While the ECB has taken measures to limit the bailout of the most profligate debt-ridden countries that are dragging their heels on reform (e.g., Greece), Eurozone heavyweights like Italy and France are also counting on QE more than on structural reform (Akagawa 2015; Randow 2015).

The financial sector as an audience group probably supported the launch of QE in all Eurozone countries, as from an investor's point of view, it would be irrational not to try to profit from this almost risk-free opportunity. In addition, especially in the periphery, the holders of the most sovereign bonds are commercial banks. Over the last three years, their exposure has risen considerably, as sovereign bonds are still seen as a low risk investment. Therefore, changes in states' creditworthiness directly affect banks' balance sheets and, in

turn, threaten the stability of the respective country's financial system. A good example of this dynamic was Greece's banking system in spring and summer 2015. Countries in the periphery pay considerably higher interest rates than do the more stable countries of the core, but at the same time QE allows the sovereign bonds even from the periphery to be converted into liquidity rapidly if necessary (BBVA 2015).

Another non-political explanation for the divergent interests of the audience groups in southern and northern European countries is the differing political economies in the Eurozone. Countries in the south of Europe have developed an economic system based on domestic demand, stimulated by public deficits, security of employment, and resulting inflation (Streeck 2015). Therefore, inflation is not necessarily seen as an evil, as it allows for large public debt through constant devaluation of the nominal stock. Countries that have operated under this economic model have used currency devaluation in the past to achieve international competitiveness. On the other hand, the northern European countries operate on an export-driven economy, and inflation, with its negative effect on international competitiveness, is the enemy. Instead of devaluation, these countries have relied on a tight grip on prices through rigorous monetary policy (Streeck 2015). Thus, QE benefits southern Europe's economic system by bringing inflation up to 2 percent and devaluing the previously strong Euro, which political leaders like Italy's Prime Minister Letta have made responsible for slow economic recovery (Streeck 2015).

While no of the two economic system is inherently better than the other, the differing political economies on which the Eurozone is built can partly explain the heated debate over QE. Economic disparities are likely to cause additional conflict between Eurozone countries in the future, as southern European countries will continue to ask for financial support, while for political reasons northern European countries will be able to provide only a fraction of the demanded financial support in exchange for fiscal oversight (Streeck 2015).

Finally, the years that it took the ECB to reach a conclusion in favor of QE show the deep-seated ideological beliefs that had to be overcome. ECB President Draghi had to enlist enough political support to defeat Germany's opposition to QE while at the same time applying changes to traditional QE in order to reduce the level of resistance (Collins 2014). While the ECB sees QE as a necessary evil to prevent the Eurozone from sliding into deflation, and regardless of the apparent agreement across the Governing Council, parts of the literature and

public opinion (e.g., in Germany) regard the purchase of government debt as a violation of principle. For them, the dispute is not about whether bond purchases are inevitable to prevent the Eurozone from sliding into deflation but whether QE is a violation of the principle that the central bank should not finance governments through the back door (Seith 2014; Subacchi 2015). It is the violation of principle and of the Treaties that form the basis of the Eurozone that, even before QE, have resulted in numerous legal battles, especially in Germany's Constitutional Court (Delivorias 2015).

8.3.4. Conclusion

To sum up, while the ECB Governing Council decided by majority vote to implement monetary easing via an asset-purchasing program, the outline of the program reflects a political compromise with QE opponents like Germany. Instead of implementing traditional QE along the lines of the policies enacted in the US and the UK, the ECB Governing Council chose to introduce alterations, the two most important of which reflect German concerns about risk-sharing and capital share quota purchases: the ECB would purchase sovereign debt in line with the respective country's share in the ECB's capital, and 80 percent of the risk associated with these purchases would remain on the respective countries' central banks' balance sheets. Low risk-sharing reflects the incomplete nature of the Eurozone, which lacks a common fiscal backstop, and reduces the incentive for reckless fiscal policies. Both alterations render the Eurozone's QE less effective by steering almost 25 percent of total purchases to Germany instead of concentrating it on the countries that have to pay high interest rates on their government debt and that show the strongest deflationary signals. On the plus side, it marks a return to a common Eurozone monetary policy. National demand for debt relief and debt monetization will not be at the heart of QE, but battling deflation will (Tonveronachi 2015). QE is a renunciation of the ECB's previous politically conditioned policies toward an approach driven by economic developments (Bibow 2015). The fact that opponents claim that QE is not intended to overcome the deep structural problems of the Eurozone is true but irrelevant; it is not the responsibility of monetary policy to overcome structural problems but to avoid deflation in order to improve growth conditions (Winkler 2015a).

To sum up, QE is the logical continuation of ECB President Draghi's "whatever it takes" speech. Forced by political inactivity and the grave design flaws in the Eurozone, the ECB moved beyond simple monetary policy to become a political institution. By assuming

responsibility for the survival of the Eurozone, the ECB lost its political innocence (Fritsche/Tarassow 2015).

8.4. The Trichet/Draghi letter and the ECB's implicit conditionality

The decision to include Italy's debt in the SMP program, while not necessarily the result of external pressure, demonstrates that, after the ECB accommodated political demands a first time by effectively bailing out the Greek state, there was no easy way back. Instead, faced with political inactivity, the ECB was forced to become even more political in order to guard a minimum of its monetary independence.

Italy's government and Italy's financial system became the focal point of the European debt crisis in summer 2011. Because of several unfavorable events, including the long discussions surrounding the second bailout of Greece, Portugal's need for financial assistance and the flawed stress test of European banks added up to a crisis in confidence. Despite solid budget surpluses for most of the preceding two decades and the fact that national aggregate wealth was vastly greater than national debt, Italy moved into the focus of the contagion debate, and political stalemate and structurally low growth rates fueled concerns (Sacchi 2015). Interest rates on Italy's government debt rocketed to prohibitively high levels, risking an effective lock-out from financial markets. Italy's prime minister's speech to parliament on August 3, 2011, denying the need for additional reforms did little to stop the flight to safety. On August 4, after weeks of public discussion about the possibility of an ECB intervention on behalf of deeply indebted Eurozone countries and calls from politicians like French President Sarkozy for such a decision, the ECB Governing Council announced that it would resume its SMP in order to calm markets down. The decision was made by majority vote, with Germany's, Holland's, and Luxembourg's Governing Council members in the minority (Sacchi 2015; Walker et al. 2011; Darvas/Merler 2013).

While the argument concerning the resumption of SMP was the same as it had been in earlier cases, centering on dysfunctional transmission channels, the fact that ECB President Trichet and his successor, Italy's Central Bank President Draghi, co-signed a confidential letter to Prime Minister Berlusconi outlining the conditions for the inclusion of Italy's sovereign debt in SMP was new. While the letter never mentioned SMP, the intention of a quid-pro-quo deal was clear, as the letter specified the expected reforms and policy alternatives and demanded that Italy's government implement the reforms swiftly. Ratification by parliament was

envisioned for September 2011 (Sacchi 2015). The ECB assumed that purchases of Italy's sovereign debt, coupled with adequate austerity measures in Italy, would be enough to calm the markets and disperse doubts about Italy's solvency (Zingales 2011). Prime Minister Berlusconi replied on August 7, pledging far-reaching reforms and deeper budget cuts, and a day later, the ECB started to buy Italy's sovereign debt for the first time, calming markets and reducing the spread between Germany's and Italy's bonds. By the end of August 2011, facing national audience groups' internal opposition to reform and feeling reassured by the drop in interest rates, Italy's government again backed away from substantial reforms. As a result, investors took to flight, and Italy's interest rates rose again. At the beginning of November 2011, members of the ECB Governing Council publicly discussed the possibility of halting purchases of Italy's bonds under SMP if Italy's government did not successfully conclude the promised reforms. When the ECB eventually stopped buying Italy's bonds, the resulting spike in interest rates led to Prime Minister Berlusconi's replacement by the technocrat Mario Monti, whose government immediately pledged deep reforms (Sacchi 2015; Walker et al. 2011; Zingales 2011; Mabbett/Schelkle 2015).

With its decision to expand SMP to Italy's debt only in return for reforms and budget cuts, the ECB introduced a monetary policy with conditionality (Darvas/Merler 2013). As there was no formal way to impose conditionality on Italy—Italy had never signed up for a formalized conditional aid program—the ECB resorted to the implicit conditionality of a letter to the prime minister (Mabbett/Schelkle 2015; Sacchi 2015). While implicit conditionality has no powerful public audience to ensure compliance, sensible monitoring, coupled with market discipline as a powerful enforcement mechanism, can make it an effective way for the ECB to influence sovereign actions (Sacchi 2015). At the same time, implicit conditionality attached to SMP raises two important issues: First and most important is that it moves the central bank into the fiscal space such that the central bank becomes a sort of European IMF, asking for detailed reforms in return for financial relief (Engelen 2011). In essence, the ECB assumed the roles and responsibilities that political actors had previously assigned to the European bailout fund EFSF (Hooper/Wilsher 2011). While such a move is difficult to defend for a mandate-driven, independent monetary institution, it also subjects a monetary-policy decision to fiscal-policy considerations, as only when the appropriate fiscal-policy actions are taken will the ECB engage in monetary policy (Darvas/Merler 2013). Second, implicit conditionality leaves the ECB with the dilemma concerning how to react to a breach of

conditions. Should it ease off from its policy, despite the risk of systemic financial troubles (Darvas/Merler 2013)? A breach of conditions would likely result in further deterioration of the situation, but ending the intervention at that point would seriously undermine the argument about dysfunctional transmission channels on which the program was based in the first place (Deutsche Bundesbank 2012). At the same time, continued support despite a breach of conditionality would hurt the ECB's credibility. In addition, it is unclear how a breach in conditions would be determined and whether there should be several stages of escalation in case of a breach (Darvas/Merler 2013).

The letter ECB President Trichet and Bank of Italy President Draghi sent and the resulting sequence of events marked a new level of monetary-policy politicization. Facing political stalemate in Italy and rising risks of contagion, the ECB demonstrated that it was ready to assume a political role (Engelen 2011). The letter proved unsuccessful in the short run, and when it was made public, it caused the Italian public and political establishment to be disgruntled without initiating major changes in Italy's fiscal policy. Therefore, at first glance, the ECB granted financial relief to a government that then backtracked on its promises, damaging the ECB's credibility (Zingales 2011; Darvas/Merler 2013; Mabbett/Schelkle 2015). In fact, the episode seemed to confirm the concerns of those who had warned of the moral hazard of purchasing government bonds (Darvas/Merler 2013). After November 2011, the ECB did replace a reform-weary government with a reform-oriented government of technocrats. While little is known about the decision-making process that led to this change, it is likely that pressure on the ECB to support Eurozone governments' financing needs was mounting. Having shown their power in May 2010, it is unlikely that pressure groups in many Eurozone countries would have been willing to sacrifice the ECB's access to unlimited liquidity for the principle of independent central banking. While ECB President Trichet tried to downplay the letter's importance by pointing out that many letters are sent to Eurozone governments, the link to SMP and the letter's content, which drew out what was almost a new government program, made it special (Dinmore/Atkins 2011). According to the Eurozone treaties, monetary policy is to be clearly separate from fiscal policies.

While implicit conditional monetary policy proved to be somewhat effective, it threatened the credibility and popular support of the ECB. By bending to political pressure and inactivity, the ECB turned SMP interventions from a one-time exception into a regular monetary-policy instrument (Kaiser 2011). Attaching implicit conditionality in order to safeguard a minimum

of independence might lead to a popular backlash if the ECB continues to push Eurozone governments to do their duty. In addition, the ECB's credibility will surely suffer from failures to convince governments to take necessary steps. The episode outlines the concept of relative audience costs, as until the inauguration of the technocrat Monti as Italy's prime minister, the power of national audience groups over Italy's government were stronger than the fear of skyrocketing interest rates. In fact, by turning national audience groups against the ECB, Prime Minister Berlusconi almost managed to extract concessions from the ECB without having to make any reforms.

8.5. ECB decision-making process and external pressures

To sum up, some external influence on the ECB's decision-making can be established, even though its extent remains unknown. The ECB's new role as a strategic actor at the negotiation table paved the way for a more political interpretation of the monetary-policy mandate. The assumption of this new role can be attributed in part to continued pressure from audience groups for a more active monetary policy. However, the decisions the ECB made also introduced new risks into the system. All of the decisions invited pressure and criticism from audience groups, as these decisions blurred the line between fiscal and monetary policy, increased moral hazard, and transferred credit risk to central banks.

Concerning the question of fiscal and monetary policy, the targeted purchase of bonds from certain countries under SMP contains elements of subsidy and selective advantage. From an economic point of view, whether bonds are purchased on secondary markets or primary markets when they are bought at face value is irrelevant (Belke 2010), and accepting bonds as collateral at face value, regardless of credit rating, transformed the ECB into a money printing press, as indebted countries can continue to issue unlimited quantities of new debt at low interest rates. The extent to which sterilizing purchases can be successful when providing unlimited liquidity to banks remains to be seen (Sinn 2010; Hayo et al. 2010; Belke 2010; Wissenschaftlicher Beirat beim Bundesministerium für Wirtschaft und Technologie 2011). While QE removed the selective advantage, its sheer magnitude will affect government debt markets and reduce the incentive to embark on the painful but ultimately more sustainable path of structural reform. In addition, the ECB's decisions foster moral hazard. On the state's side, the decisions tolerate irresponsible fiscal behavior and punish fiscally solid governments (Hayo et al. 2010; Belke 2010). The case study of the Trichet/Draghi letter underscores this

view: as soon as market pressure was lifted and unpopular reform measures had to be enacted, Italy's government chose to ignore its promises by betting on the ECB's unwillingness to confront. On the commercial banks' side, the ECB's decisions increase investor's motivation to purchase even more high-yield government debt, as the ECB's "insurance policy" makes more cautious behavior less attractive and resembles a bailout since the bonds were purchased outside of profit considerations (Sinn 2010; Hayo et al. 2010). What's more, credit risk has become an issue for the ECB because of the increasing amount of risky public and private debt on its balance sheet, amassed through the change in the collateral requirements, the direct purchase of debt, and the provision of ELA. If debt-ridden countries are finally forced into restructuring or waiving debt, the ECB would be forced to write down substantial amounts of credit, which could either reduce governments' receipt of seignorage or, in the worst case, force them to recapitalize their national central banks. Therefore, credit risk is rolled over to taxpayers in the end (Belke 2010; Hayo et al. 2010; Demary/Matthes 2013b). In the long run, the inability to end the purchase of public and private debt—despite unfulfilled reform promises and because of such a step's dramatic effects on crisis countries' deficit financing ability and the loss the ECB would incur in case of default—could subject the ECB to blackmail and undermine its independence (Demary/Matthes 2013b).

Finally, being constantly overruled in ECB Governing Council decisions may well turn public and political opinion in northern European Eurozone countries against the ECB. Even among Bundesbank bankers, fears are growing that the Bundesbank has been taken over by the national central banks of southern Eurozone countries (Engelen 2011). The "one country, one vote" rule has led to a politically explosive situation in which the Eurozone's most indebted countries can access Germany's financial resources to soften the blow. The idea of creating a depoliticized monetary policy has been overturned by the differences in national approaches to and beliefs about overcoming the current crisis (Engelen 2011). Lacking an effective instrument with which to counter the apparent hijacking of monetary policy, Germany's central bankers have inflicted massive public audience cost on the ECB by encouraging and feeding into an ongoing public debate on the legitimacy of the ECB's crisis management. While legal challenges in Germany's Constitutional Court have so far failed to overturn the ECB's policy measures, the Bundesbank's testimony in front of the court favored the plaintiff, showing the frustration among Germany's central bankers (Mabbett/Schelkle 2015). The attacks have put the ECB into a politically difficult situation: the close relationship between

bank and government financing means that walking away from buying government bonds is not an option, so the ECB has responded to audience costs by moving even deeper into the fiscal space, expanding its jurisdiction over fiscal policy through implicit conditionality and membership in the Eurozone's troika (Mabbett/Schelkle 2015).

9. Conclusion

The pre-crisis consensus on monetary policy broke down during the crisis, damaging the perception of independent central banks' successful monetary policy-making. The certainty that, left to a technocratic and independent central bank, price stability and monetary policy would be sufficient to guarantee financial stability and economic well-being no longer hold true. Focusing on price stability as a core goal, independent central banks around the world could not prevent or even predict the financial crisis. The use of unconventional monetary policy, which blurs the boundary between fiscal and monetary policy, was also only partially successful at best. While the ECB prevented the breakdown of the Eurozone and the collapse of the financial system, the side effects—especially the functional and distributional risks—of ultra-lax monetary policy are becoming increasingly evident. However, most worrisome is the significant reliance of public and private parties on cheap central bank liquidity, as any change in policy would likely be met with fierce opposition. Now that central banks have shown both the public and politicians just of what they are capable, the way back to conventional monetary policy will be rocky. The failure to prevent the crisis, the raising expectations about what monetary policy can achieve, and the resulting risks have led to a discussion in public and academic circles about central banks' structure and mandate. Central banks' sovereignty in the interpretation of monetary policy and their assumed status as independent bodies have come under attack.

Against this background of strained support and recurring debate on central banks' structure and mandate, this dissertation addresses why the ECB continues to engage in ultra-low monetary policy. It is my conclusion that the measures' limited success raises questions about why the ECB continues to engage in them. The hypothesis tested here is that external audience groups—the general public, political actors and economic actors—are influencing the ECB's decision-making. Applying the Political Audience Cost Theory, the dissertation shows that the ECB is susceptible to external audience groups' preferences about monetary policy. The analysis shows that these preferences are a good indicator of the ECB's policy-making between 2007 and 2014. For most of the time period covered by this analysis, the ECB's refinancing rate moved in line with the average preference for monetary policy in the Eurozone. Today, the majority of audience groups in all Eurozone countries support the ECB's policy-making, and a reversal of preference is unlikely, despite the increase in economic well-being and a projected surge in inflation rates. The support for the ECB's

current policies is almost universal, applying to both the crisis countries of Europe's south and the northern European member countries that were far less heavily hit by the crisis. In no Eurozone country does a majority of audience groups currently demand a more restrictive monetary policy.

The core strength of the Political Audience Cost Theory is that it allows social, cultural, and political variables to be incorporated into the explanation of institutional behavior. Contrary to conventional economic theory and its unrealistic assumption of *homo economicus*, Political Audience Cost Theory acknowledges that other non-economic factors shape institutions' structure and behavior. Going beyond a simple cost-benefit calculation, Political Audience Cost Theory provides scholars with a mechanism by which to transmit the actors' underlying institutional and political economic motives into actual policy-making. In addition, through the choice of variables and possible audience groups, Political Audience Cost Theory allows numerous other explanatory concepts currently discussed in the literature to be incorporated and tested. Most of the limitations of the theory are grounded in the difficulty in measuring audience cost, especially the measurement of the costs that audience groups can inflict. Even the most detailed country-specific analysis must rely on some arbitrarily attached weights. With regard to central banking and the specific case of the ECB, another general limitation for scholars studying the ECB is the secrecy surrounding the ECB's Governing Council meetings. Without more access to the council's decision-making criteria and records of its members' voting behavior and meeting minutes, applying the Audience Cost Theory to the ECB is difficult.

The dissertation outlines a plausible explanation for the observed accordance between the Eurozone audiences' preferences and the ECB interest rate: that national central bank governors vote with their home countries' interests, ensuring a monetary policy that is to their domestic audience groups' liking. This explanation rests on two conclusions: First, de-jure independence does not directly map into de-facto independence. While the ECB has a high level of de-jure independence, which is of constitutional character, national central banks have both lower de-jure and lower de-facto independence. National central banks in the Eurozone have remained parts of national political systems, they operate in domestic political spheres, their governors have to face re-election, and their de-jure independence is often protected only by a simple-majority law. It is against this background that national central banks are forced to take their key domestic audience groups' preferences into account in order

to protect their independence and (ultimately) existence. No national central bank can ignore domestic preferences for an extended period of time; even central banks considered highly independent such as the Bundesbank face such constraints. The central banks' de-facto independence has always been a question of degree, influenced by variables like the chancellor's popularity, so many national central banks' de-facto independence often does not match their formal de-jure independence. The need to incorporate domestic preferences becomes even more pressing when one considers that the ECB as an institution is facing low and deteriorating trust levels across the Eurozone, and about half of the Eurozone has an economic culture that does not value the independence of a central bank over the primacy of politics. The second explanation on which the conclusion that national central bank governors vote with their home countries' interests rests is the effect of the quasi-intergovernmental character of the ESCB and the "one country, one vote" principle, which leads national central banks' governors to place more weight on national interests than they do on a Eurozone-wide view. They show a regional bias and, regardless of official *ad personam* rules, act as representatives of their home countries. Through the majority of national central banks' governors in the ECB's Governing Council, national interests dominate monetary policy-making in the Eurozone.

To support my conclusion that the ECB's decision-making relies on other than economic considerations, the dissertation includes an analysis of the influence of public and private pressure groups on the ECB's most controversial decisions. All four decisions—the suspension of collateral requirements for Greece's bonds and the purchase of public and private debt on secondary markets, the excessive use of ELA during Greece's debt crisis, the launch of QE, and Trichet and Draghi's use of implicit conditionality—were highly controversial and can be explained only partly by economic arguments. The decision to launch the Securities Market Program on May 10, just after the Eurozone's heads of state announced their EUR 750 billion rescue package, raises particular suspicion about external pressure on the ECB. In all of these decisions, the ECB appears as a highly politicized institution, as monetary policy decisions seem to be based more on political considerations than on economic necessities. There is little to refute such suspicions.

To sum up, this dissertation provides support for the conclusion that the ECB is susceptible to external pressure. Political Audience Cost Theory offers help to reveal the central banks' approach to monetary policy-making and provides an explanation for the link between

domestic audience groups' institutional and political motives and the ECB's Governing Council members' preferences. While the theory rests on the conclusion regarding the presence of regional bias and lower de-facto independence for national central banks, both explanations are plausible.

Finally, one must ask how the ECB's de-facto independence can be strengthened. Surely, any attempt to do so will be difficult, not least because low de-facto independence is partly a result of the economic culture in the Eurozone member states. Even so, the new rotation model for the Governing Council will strengthen the ECB. From a purely technical point of view, the reduction in the council's size did not necessarily demand rotation groups with diverging voting rights to be established. A simple reduction of members would have been sufficient as, according to the *ad-personam* assumption, every governor should be equally capable of deciding on monetary policy for the Eurozone. Nevertheless, while the reform is proof of my conclusion that national central banks' governors have a regional bias, it goes a long way toward eliminating the negative side effects of the "one country, one vote" principle by acknowledging a regional bias exists that is likely to persist. Reassigning the voting rights based on a country's size and GDP will lead to a monetary policy that, despite regional biases, will be a more fitting policy for the whole Eurozone. The ECB's de-facto independence could be strengthened further if voting power were distributed proportional to each country's share of total Eurozone GDP, as doing so would increase the ECB's perceived success in setting monetary policy and increase legitimacy and de-facto independence. Finally, politicians could also attempt to increase the ECB's directorate strength, assuming that they have a Eurozone-centered view. Doing so would eliminate national audience groups' access to monetary policy decision-making but would depend on member states' willingness to sacrifice the influence.

The analysis in this dissertation suffers from a number of limitations that invite further research. First, because of the dissertation's nature and limited scope, its analysis of the preferences of individual member states' audience groups is comparatively crude. Forthcoming research should specify country-specific models by analyzing power and preference structures in greater depth. Possible improvements include additional variables to identify audience groups' preferences, which would improve the predictive power of the model. Second, clarification of the ECB's de-facto use of decision-making criteria would be helpful. The official two-pillar system is vague—particularly the so-called second pillar, which offers justification for almost any thinkable policy turn. Third, future research should

focus on a decisive “moment of truth” in the sense of fundamentally diverging economic necessities and audience group preferences. Such a scenario—which is likely to occur in the near- to medium-term future if inflation rates increase as predicted while most countries’ growth remains sluggish and unemployment rates high—will be the real test to the theory. In that case, the ECB’s Governing Council will have to choose between protecting price stability by keeping inflation in check and giving in to the demands of domestic audience groups.

10. Bibliography

- Akagawa, Shogo. 2015. "Outsourcing Economic Policy: ECB Caved to Political Pressure for Quantitative Easing." *Nikkei Asian Review*, January 23. <http://asia.nikkei.com/Politics-Economy/Economy/ECB-caved-to-political-pressure-for-quantitative-easing>.
- Alesina, Alberto. 1988. "Macroeconomics and Politics." In *NBER Macroeconomics Annual*, edited by Stanley Fischer, 3:13–62. Cambridge: MIT Press.
- Alesina, Alberto, James Mirrlees, and Manfred Neumann. 1989. "Politics and Business Cycles in Industrial Democracies." *Economic Inquiry* 4 (8): 55–98.
- Alesina, Alberto, and Lawrence H. Summers. 1993. "Central Bank Independence and Macroeconomic Performance." *Journal of Money, Credit and Banking* 25 (2): 157–62.
- Alich, Holger, and Norbert Häring. 2010. "Weber Geißelt Käufe von Anleihen." *Handelsblatt*, May 31. <http://www.handelsblatt.com/politik/konjunktur/nachrichten/bundesbankpraesident-weber-geisselt-kaeufe-von-anleihen/3449216.html>.
- Antenbrink, Fabian, Jakob De Haan, and Sylvester C. W. Eijfinger. 1999. "Accountability of Central Banks: Aspects and Quantification." *BNL Quarterly Review* 52 (209): 169–193.
- Angeloni, Ignazio, A. K. Kashyap, Benoît Mojon, and Eurosystem Monetary Transmission Network, eds. 2003. *Monetary Policy Transmission in the Euro Area: A Study by the Eurosystem Monetary Transmission Network*. Cambridge; New York: Cambridge University Press.
- Arnone, Marco, Bernard Laurens, Jean-Francois Segalotto, and Martin Sommer. 2007. "Central Bank Autonomy: Lessons from Global Trends." *IMF Working Paper*, no. 88.
- Atkins, Ralph. 2010. "Germans Oppose Greek Aid, Poll Shows." *Financial Times*, March 21. <http://www.ft.com/intl/cms/s/0/ee055e82-3529-11df-9cfb-00144feabdc0.html#axzz3eT0mtMfH>.
- Badel, Alejandro. 2014. "Recent ECB Policy and Inflation Expectations." 24. Economic Synopses. St. Louis: Federal Reserve Bank of St. Louis.
- Bade, Robert, and Michael Parkin. 1984. "Central Bank Laws and Monetary Policy." Department of Economics, University of Western Ontario, Canada.
- Badinger, Harald, and Volker Nitsch. 2014. "National Representation in Supranational Institutions: The Case of the European Central Bank." *Journal of Comparative Economics* 42 (1): 19–33.
- Baldwin, R., E. Berglof, F. Giavazzi, and M. Widgren. 2001. "Preparing the ECB for Enlargement." *CEPR Discussion Paper*, no. 6.
- Ball, R. 1999. "The Institutional Foundations of Monetary Commitment: A Comparative Analysis." *World Development* 27 (10): 1821–42.
- Barber, Tony. 2010. "Saving the Euro: Dinner on the Edge of the Abyss." *Financial Times*, October 10. <http://www.ft.com/intl/cms/s/0/190b32ae-d49a-11df-b230-00144feabdc0.html>.

- Barkin, Noah. 2015. "All Eyes on Berlin as ECB Readies Bond-Buying Scheme." *Reuters*, January 4. <http://www.reuters.com/article/2015/01/04/us-ecb-germany-analysis-idUSKBN0KD05N20150104>.
- Barro, Robert J., and David B. Gordon. 1983. "A Positive Theory of Monetary Policy in a Natural Rate Model." *The Journal of Political Economy* 91 (4): 589–610.
- Bawn, Kathleen. 1995. "Political Control Versus Expertise: Congressional Choices About Administrative Procedures." *American Political Science Review* 89 (1): 62–73.
- BBVA. 2015. "Monitoring ECB Balance Sheet Expansion." ECB Watch. Bilbao: BBVA.
- Beetsma, Roel M. W.J., and Lans Bovenberg. 2000. "Designing Fiscal and Monetary Institutions for a European Monetary Union." *Public Choice* 102 (3/4): 247–69.
- Belke, Ansgar. 2010. "Driven by the Markets? ECB Sovereign Bond Purchases and the Securities Markets Programme." *ROME Discussion Paper*, no. 10.
- Belke, Ansgar, and Barbara Styczynska. 2006. "The Allocation of Power in the Enlarged ECB Governing Council: An Assessment of the ECB Rotation Model." *Journal of Common Market Studies* 44 (5): 865–97.
- Bénassy-Quéré, Agnès, and Edouard Turkisch. 2008. "The ECB Governing Council in an Enlarged Euro Area." *Journal of Common Market Studies* 47 (1): 25–53.
- Berger, Helge, and Jakob De Haan. 2002. "Are Small Countries Too Powerful Within the ECB?" *Atlantic Economic Journal* 30 (3): 263–82.
- Berggren, Niclas, Sven-Olov Daunfeldt, and Jörgen Hellström. 2012. "Social Trust and Central-Bank Independence." *IFN Working Paper*, no. 920.
- Berman, Sheri, and Kathleen McNamara. 1999. "Bank on Democracy. Why Central Banks Need Public Oversight." *Foreign Affairs* 78 (2): 2–8.
- Bernhard, William, Lawrence Broz, and William Clark. 2002. "The Political Economy of Monetary Institutions." *International Organization* 56 (4): 693–723.
- Bernhard, William, and David Leblang. 2002. "Political Parties and Monetary Commitments." *International Organization* 56 (4): 803–30.
- Bernoth, Kerstin, Philipp König, Carolin Raab, and Marcel Fratzscher. 2015. "Uncharted Territory: Large-Scale Asset Purchases by the European Central Bank." *DIW Economic Bulletin* 5 (13): 189–98.
- Bibow, Jörg. 2015. "The Euro's Savior? Assessing the ECB's Crisis Management Performance and Potential for Crisis Resolution." *Macroeconomic Policy Institute Study*, no. 42.
- Bindseil, Ulrich. 2001. "A Coalition-Form Analysis of the 'One Country - One Vote' Rule in the Governing Council of the European Central Bank." *International Economic Journal* 15 (1): 141–64.
- Blackburn, Keith, and Michael Christensen. 1989. "Monetary Policy and Policy Credibility: Theories and Evidence." *Journal of Economic Literature* 27 (1): 1–45.
- Blackstone, Brian, Paul Hannon, and Marcus Walker. 2015. "Aggressive ECB Stimulus Ushers In New Era for Europe." *Wall Street Journal*, January 23. <http://www.wsj.com/articles/ecb-announces-stimulus-plan-1421931011>.
- Blinder, Alan. 2012. "Central Bank Independence and Credibility During and After a Crisis." presented at the Jackson Hole Symposium, Jackson Hole, January 9.

- Bohn, Frank, and Eelke de Jong. 2011. "The 2010 Euro Crisis Stand-off between France and Germany: Leadership Styles and Political Culture." *International Economics and Economy Policy* 8 (1): 7-14.
- Bohte, John, and B. Dam Wood. 2004. "Political Transaction Costs and the Politics of Administrative Design." *The Journal of Politics* 66 (1): 176–202.
- Borio, Claudio. 2011. "Central Banking Post-Crisis: What Compass for Unchartered Waters?" *BIS Working Papers*, no. 353.
- . 2014. "Monetary Policy and Financial Stability: What Role in Prevention and Recovery?" *BIS Working Papers*, no. 440.
- Borio, Claudio, and Piti Disyatat. 2009. "Unconventional Monetary Policies: An Appraisal." *BIS Working Papers*, no. 292.
- Borio, Claudio, Magdalena Erdem, Andrew Filardo, and Boris Hofman. 2015. "The Cost of Deflations: A Historical Perspective." *BIS Quarterly Review*.
- Borio, Claudio, Bent Vale, and von Peter Goetz. 2010. "Resolving the Financial Crisis: Are We Heeding the Lessons from the Nordics?" *BIS Working Papers*, no. 311.
- Boyd, John, Ross Levine, and Bruce Smith. 2011. "The Impact of Inflation on Financial Sector Performance." *Journal of Monetary Economics* 47 (2): 221–48.
- Brunnermeier, Markus, and Yuliy Sannikov. 2012. "Redistributive Monetary Policy." In Jackson Hole Symposium. Jackson Hole.
- Buiter, Willem. 2012. "The Role of Central Banks in Financial Stability: How Has It Changed?" *CEPR Discussion Paper*, no. 8780.
- Buiter, Willem H. 1999. "Alice in Euroland." *JCMS: Journal of Common Market Studies* 37 (2): 181–209.
- Calvert, Randall L., Mathew D. McCubbins, and Berry R. Weingast. 1989. "A Theory of Political Control and Agency Discretion." *American Journal of Political Science* 33 (3): 588–611.
- Campbell, John L. 1998. "Institutional Analysis and the Role of Ideas in Political Economy." *Theory and Society* 27 (3): 377–409.
- Campillo, Marta, and Jeffrey A. Miron. 1997. "Why Does Inflation Differ across Countries." In *Reducing Inflation: Motivation and Strategy*, edited by Christina Romer and David Romer, 335–62. Chicago: University of Chicago Press.
- Cancelo Ramón, José, Diego Varela, and José Sánchez-Santos. 2011. "Interest Rate Setting at the ECB: Individual Preferences and Collective Decision Making." *Journal of Policy Modeling* 33 (6): 804–20.
- Carré, Emmanuel, Jézabel Coupey-Soubeyran, Dominique Plihon, and Marc Pourroy. 2013. "Central Banking after the Crisis: Brave New World or Back to the Future?" *Documents de Travail Du Centre d'Economie de La Sorbonne*, no. 13073.
- Caruana, Jaime. 2010. "Macroprudential Policy: What We Have Learned and Where We Are Going." June 18. <http://www.bis.org/speeches/sp100618a.htm>.
- . 2013. "The Changing Nature of Central Bank Independence." October 14. <https://www.bis.org/speeches/sp131017.htm?ql=1>.
- Centrum für Europäische Politik. 2013. "Die Euro-Reform. Eine neue Ordnung für die Euro-Zone." Centrum für Europäische Politik.

- CEsifo Group Munich. 2015. "Sinn and Fuest Oppose Extension of Emergency Credit for Greek Banks." *CEsifo Group Munich*. http://www.cesifo-group.de/ifoHome/presse/Pressemitteilungen/Pressemitteilungen-Archiv/2015/Q3/pm_20150710-ela-notkredite.html.
- Chowdhury, Abdur R. 1991. "The Relationship between the Inflation Rate and Its Variability: The Issues Reconsidered." *Applied Economics* 23 (6): 993–1003.
- Christensen, Jorgen G., and Kutsal Yesilkagit. 2010. "Institutional Design and Formal Autonomy: Political versus Historical and Cultural Explanations." *Journal of Public Administration Research and Theory* 20 (1): 53–74.
- Christensen, Tom, and Per Laegreid. 2007. "Modern Regulatory Policy - Ideals and Practice." *Policy and Society* 26 (4): 19–37.
- Clark, William, Sona Golder, and Paul Poast. 2013. "Monetary Institutions and the Political Survival of Democratic Leaders." *International Studies Quarterly* 57 (3): 556–67.
- Cochrane, John. 2010. "Greek Myths and the Euro Tragedy." *Wall Street Journal*, May 18. http://faculty.chicagobooth.edu/john.cochrane/research/papers/John%20H.%20Cochrane_%20Greek%20Myths.pdf.
- Collignon, Stefan. 2013. "How (Not) to Reform the Euro Area's Economic Governance." *Global Policy* 4 (Supplement 1): 50–57.
- Collins, Michael. 2014. "Germany's Policy Stance Is Failing the Eurozone." Fidelity International.
- Corso, Regina. 2010. "Germans and Britons Opposed to Their Government Helping Greece Debts." Harris Poll. <http://www.harrisinteractive.com/NewsRoom/HarrisPolls/FinancialTimesHarrisPolls/tabid/449/mid/1512/articleId/148/ctl/ReadCustom%20Default/Default.aspx>.
- Credit Agricole. 2015. "ECB QE: Big and Flexible Enough." Credit Agricole Group Economic and Sector Analysis. Credit Agricole.
- Crowe, Christopher, and Ellen E. Meade. 2007. "The Evolution of Central Bank Governance around the World." *Journal of Economic Perspectives* 21 (4): 69–90.
- Cruz Ortiz, Guillermo. 2009. *Issues in the Governance of Central Banks: A Report from the Central Bank Governance Group*. Basel: Bank for International Settlements.
- Cukierman, Alex. 1992. *Central Bank Strategy, Credibility, and Independence: Theory and Evidence*. Cambridge, Mass: MIT Press.
- . 1994. "Central Bank Independence and Monetary Control." *The Economic Journal* 104 (427): 1437–48.
- . 2008. "Central Bank Independence and Monetary Policymaking Institutions - Past, Present and Future." *European Journal of Political Economy* 24 (4): 722–36.
- . 2011. "Reflections on the Crisis and on Its Lessons for Regulatory Reform and for Central Bank Policies." *Journal of Financial Stability* 7 (1): 26–37.
- Cukierman, Alex, Pantelis Kalaitzidakis, and Lawrence H. Summers. 1993. "Central Bank Independence, Growth, Investment, and Real Rates." *Carnegie-Rochester Conference Series on Public Policy* 39 (1): 95–140.

- Cukierman, Alex, Steven B. Webb, and Bilin Neyapti. 1992. "Measuring the Independence of Central Banks and its Effects on Policy Outcomes." *The World Bank Economic Review* 6 (3): 353–98.
- Dams, Jan, Martin Greive, Sebastian Jost, and Andre Tauber. 2015. "Heute Würden Wir Griechenland Pleitegehen Lassen." *Die Welt*, May 12. <http://www.welt.de/wirtschaft/article140807850/Heute-wuerden-wir-Griechenland-pleitegehen-lassen.html>.
- Darvas, Zsolt, and Silvia Merler. 2013. "The European Central Bank in the Age of Banking Union." *Bruegel Policy Contribution*, no. 13.
- Daunfeldt, S.-O., and X. de Luna. 2007. "Central Bank Independence and Price Stability: Evidence from OECD-Countries." *Oxford Economic Papers* 60 (3): 410–22.
- Debelle, Guy, and Stanley Fischer. 1994. "How Independent Should a Central Bank Be?" *Working Papers in Applied Economic Theory Federal Reserve of San Francisco* 94 (5): 195–221.
- Debrun, Xavier. 2001. "Bargaining over EMU vs. EMS: Why Might the ECB Be the Twin Sister of the Bundesbank?" *The Economic Journal* 111 (473): 566–90.
- De Grauwe, Paul. 2000. "Monetary Policies in the Presence of Asymmetries." *Journal of Common Market Studies* 38 (4): 593–612.
- De Grauwe, Paul, Hans Dewachter, and Yunus Akosy. 1999. "The European Central Bank: Decision Rules and Macroeconomic Performance." *CEPR Discussion Paper*, no. 2067.
- De Grauwe, Paul, and Yuemei Ji. 2015. "Quantitative Easing in the Eurozone: It's Possible without Fiscal Transfers." *VoxEU.org*. January 15. <http://www.voxeu.org/article/quantitative-easing-eurozone-its-possible-without-fiscal-transfers>.
- De Jong, Eelke, and Femke van Esch. 2013. "Culture Matters: French-German Conflicts on European Central Bank Independence and Crisis Resolution." *NiCE Working Paper*, no. 104.
- Delivorias, Angelos. 2015. "The ECB's Expanded Asset Purchase Programme. Will Quantitative Easing Evive the Euro Area Economy?" European Parliamentary Research Service Briefing. European Parliament.
- Demary, Markus, and Jürgen Matthes. 2013a. "Die EZB Auf Abwegen? Teil 1: Die Unkonventionelle Geldpolitik Der EZB - Eine Bestandsaufnahme." *IW Policy Paper*, no. 13.
- . 2013b. "EZB Auf Abwegen? Teil 3: Gefährden Die Staatsanleihekäufe Die Unabhängigkeit Der EZB Und Bewirken Starke Fehlanreize?" *IW Policy Paper*, no. 18.
- Deroose, Servaas, Dermot Hodson, and Joost Kuhlmann. 2007. "The Legitimation of EMU: Lessons from the Early Years of the Euro." *Review of International Political Economy* 14 (5): 800–819.
- De Santis, Roberto. 2012. "The Euro Area Sovereign Debt Crisis. Safe Haven, Credit Rating Agencies and the Spread of the Fever from Greece, Ireland and Portugal." *ECB Working Paper*, no. 1419.

- De Sousa, Pedro. 2001. "Independent and Accountable Central Banks and the European Central Bank." *European Integration Online Papers* 5 (9).
- Deutsche Bundesbank. 2012. "Financial Stability Review." Frankfurt am Main: Deutsche Bundesbank.
- Dinmore, Guy, and Ralph Atkins. 2011. "ECB Letter Shows Pressure on Berlusconi." *Financial Times*, September 29. <http://www.ft.com/cms/s/0/3576e9c2-eaad-11e0-aeca-00144feab49a.html#axzz3oSKt0JT7>.
- Down, Ian. 2004. "Central Bank Independence, Disinflation, and the Sacrifice Ratio." *Comparative Political Studies* 37 (4): 399–434.
- Draghi, Mario. 2012. "Speech by Mario Draghi, President of the European Central Bank." presented at the Global Investment Conference, London. <https://www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html>.
- . 2015. Introductory Statement to the press conference (with Q&A). <https://www.ecb.europa.eu/press/pressconf/2015/html/is150716.en.html>.
- Dreher, Axel, Jan-Egbert Sturm, and Jakob De Haan. 2010. "When Is a Central Bank Governor Replaced? Evidence Based on a New Data Set." *Journal of Macroeconomics* 32 (3): 766–81.
- Drometer, Marcus, Thomas Siemsen, and Sebastian Watzka. 2013. "The Monetary Policy of the ECB: A Robin Hood Approach." *CESifo Working Paper Series*, no. 4178.
- Dunne, Peter, Mary Everett, and Rebecca Stuart. 2015. "The Expanded Asset Purchase Programme - What, Why and How of Euro Area QE." 3. Quarterly Bulletin. Frankfurt am Main: European Central Bank.
- Egeberg, Morten, and Jarle Trondal. 2009. "Political Leadership and Bureaucratic Autonomy: Effects of Agencification." *Governance: An International Journal of Policy, Administration, and Institutions* 22 (4): 673–88.
- Ehrmann, Michael, and Marcel Fratzscher. 2011. "Politics and Monetary Policy." *The Review of Economics and Statistics* 93 (3): 941–60.
- Ehrmann, Michael, Michel Soudan, and Livio Stracca. 2012. "Explaining EU Citizens' Trust in the ECB in Normal and Crisis Times." *ECB Working Paper*, no. 1501.
- Eijffinger, Sylvester C. W. 2006. "Change at the ECB Executive Board." *Intereconomics: Review of European Economic Policy* 41 (2): 93–99.
- Eijffinger, Sylvester C. W., and Jakob De Haan. 1996. "The Political Economy of Central-Bank Independence." *Special Papers in International Economics, Department of Economics, Princeton University*, no. 19.
- Eijffinger, Sylvester C. W., and Eric Schaling. 1993. "Central Bank Independence: Theory and Evidence." *Center for Economic Research Discussion Paper*, no. 9325.
- Engelen, Klaus C. 2011. "Savior or Villain? How Germans View Jean-Claude Trichet's Legacy." *The International Economy* 25 (4): 53–60.
- European Central Bank. "Key ECB interest rates." <https://www.ecb.europa.eu/stats/monetary/rates/html/index.en.html>.
- European Central Bank. 2010a. "Monatsbericht." 06. Frankfurt am Main: European Central Bank.

- . 2010b. “ECB Announces Change in Eligibility of Debt Instruments Issued or Guaranteed by the Greek Government.” European Central Bank <https://www.ecb.europa.eu/press/pr/date/2010/html/pr100503.en.html>.
- . 2010c. “ECB Decides on Measures to Address Severe Tensions in Financial Markets.” European Central Bank. <https://www.ecb.europa.eu/press/pr/date/2010/html/pr100510.en.html>.
- . 2013. “ELA Procedures.” European Central Bank. <https://www.ecb.europa.eu/pub/pdf/other/elaprocedures.en.pdf?e0e0688fa82a174563d3cc838d7f5de1>.
- . 2015. “ECB Announces Expanded Asset Purchase Programme.” European Central Bank. https://www.ecb.europa.eu/press/pr/date/2015/html/pr150122_1.en.html.
- European Commission. “Annual macro-economic database.” http://ec.europa.eu/economy_finance/db_indicators/ameco/index_en.htm.
- European Commission. “Eurobarometer Database.” http://ec.europa.eu/public_opinion/cf/index.cfm?lang=en.
- European Commission. “Eurostat Database.” <http://ec.europa.eu/eurostat/data/database>.
- European Union Centers of Excellence. 2010. “The ‘Greek’ Crisis: Origins.” EU Briefings. Chapel Hill: University of North Carolina.
- Fahrholz, Christian, and Philipp Mohl. 2008. “Machtindexanalyse und Europäische Zentralbank.” In *Die politische Ökonomie des EU-Entscheidungsprozesses*, edited by Torsten Selck and Tim Veen, 71–89. Wiesbaden: VS Verlag für Sozialwissenschaften.
- Fahr, Stephan, Roberto Motto, Massimo Rostagno, Frank Smets, and Oreste Tristani. 2010. “Lessons for Monetary Policy Strategies from the Recent Past.” In *ECB Central Banking Conference*. Frankfurt am Main: European Central Bank.
- Farvaque, Etienne. 2002. “Political Systems and Central Bank Independence.” *Economies et Sociétés* 36 (2): 235–40.
- Farvaque, Etienne, Muhammad Hayat, and Alexander Mihailov. 2011. “Who Supports the ECB? Evidence from Eurobarometer Survey Data.” *Department of Economics of the University of Reading*, no. 092.
- Farvaque, Etienne, and Alexander Mihailov. 2014. “A Theory of the International Dynamics of Inflation Beliefs and Monetary Institutions.” *Department of Economics of the University of Reading*, no. 107.
- Fatum, Rasmus. 2006. “One Monetary Policy and 18 Central Bankers: The European Monetary Policy as a Game of Strategic Delegation.” *Journal of Monetary Economics* 53 (4): 659–69.
- Fearon, James D. 1994. “Political Audiences and the Escalation of International Disputes.” *The American Political Science Review* 88 (3): 577–92.
- Fischer, Stanley. 1993. “The Role of Macroeconomic Factors in Growth.” *Journal of Monetary Economics* 32 (3): 486–512.
- Fisher, Irvine. 1922. *The Purchasing Power of Money. Its Determination and Relation to Credit, Interest, and Crises*. 2nd ed. New York: Macmillan Company. <http://www.econlib.org/library/YPDBooks/Fisher/fshPPMcover.html>.

- Focus Online. 2010a. "Abwertung: Panik in Griechenland." *Focus Online*, April 27. http://www.focus.de/finanzen/news/abwertung-panik-in-griechenland_aid_502814.html.
- . 2010b. "Griechenland-Krise: Die EZB Knickt Ein." *Focus Online*, May 5. http://www.focus.de/finanzen/news/staatsverschuldung/griechenland-krise-die-ezb-knickt-ein_aid_504412.html.
- Forder, James. 2005. "The Limits of Independence and the Policy of the ECB." *Public Choice* 125 (3/4): 431–44.
- Frankfurter Allgemeine Zeitung. 2009. "Auch S&P Stuft Griechenland Herunter." *Frankfurter Allgemeine Zeitung*, December 16. <http://www.faz.net/aktuell/wirtschaft/eurokrise/schlechte-kreditwuerdigkeit-auch-s-p-stuft-griechenland-herunter-1894634.html>.
- Frankfurter Rundschau Online. 2010. "EZB-Direktor Ohrfeigt Merkel." *Frankfurter Rundschau*, March 24. <http://www.fr-online.de/schuldenkrise/iwf-hilfe-fuer-griechenland-ezb-direktor-ohrfeigt-merkel,1471908,2835848.html>.
- Franzese, Robert J. 1999. "Partially Independent Central Banks, Politically Responsive Governments, and Inflation." *American Journal of Political Science* 43 (3): 681–706.
- Frieden, Jeffrey A. 2014. *Currency Politics: The Political Economy of Exchange Rate Policy*. Princeton: Princeton University Press.
- Friedman, Milton. 1956. "The quantity theory of money - A restatement." In *Studies in the quantity theory of money*, edited by Milton Friedman, 3-21. Chicago: University of Chicago Press.
- . 1986. "The role of monetary policy." *American Economy Review* 58 (1): 1-17.
- Fritsche, Ulrich, and Artur Tarassow. 2015. "Did the ECB Overstep Its Mandate?: Assessing Deflationary Risks in the Euro Area." *Intereconomics* 50 (3): 165–70.
- Furlong, Scott R. 1998. "Political Influence on the Bureaucracy: The Bureaucracy Speaks." *Journal of Public Administration Research and Theory* 8 (1): 39–65.
- Georgiadis, Georgios, and Johannes Gräßl. 2015. "Global Financial Market Impact of the Announcement of the ECB's Extended Asset Purchase Programme." *Federal Reserve Bank of Dallas Working Papers*, no. 232.
- Gersl, Adam. 2006. "Political Pressure on Central Banks: The Case of the Czech National Bank." *IES Working Paper* 06 (8).
- Giugliano, Ferdinando. 2015. "Greek Banks: Athens' Achilles Heel." *Financial Times*, June 19. <http://www.ft.com/intl/cms/s/0/265ceb78-15ae-11e5-8e6a-00144feabdc0.html#axzz3oSKt0JT7>.
- Goodhart, Charles. 2010. "The Changing Role of Central Banks." *BIS Working Papers*, no. 326.
- Götz, Martin, Rainer Haselmann, Jan Pieter Krahen, and Sascha Steffen. 2015. "Did Emergency Liquidity Assistance (ELA) of the ECB Delay the Bankruptcy of Greek Banks?" *SAFE Policy Letter*, no. 46.
- Greive, Martin. 2010. "Europäische Zentralbank Begräbt Ihre Prinzipien." *Die Welt*, May 10. <http://www.welt.de/finanzen/article7568443/Europaeische-Zentralbank-begraebt-ihre-Prinzipien.html>.

- Grilli, Vittorio, Donato Masciandaro, and Guido Tabellini. 1991. "Political and Monetary Institutions and Public Financial Policies in the Industrial Countries." *Economic Policy* 6 (1): 341–92.
- Gros, Daniel, and Carsten Hefeker. 2000. "One Size Must Fit All. National Divergences in a Monetary Union." *CESifo Working Paper Series*, no. 326.
- Gros, Daniel, and Felix Roth. 2010. *The financial crisis and citizen trust in the European Central Bank*. Brussels: CEPS.
- Haas, Robert, and Mel Pak. 2010. "Ramsch - Na Und?" *Süddeutsche Zeitung*, May 21. <http://www.sueddeutsche.de/geld/griechenland-anleihen-ramsch-na-und-1.941896>.
- Hall, Peter A., and Rosemary C.R. Taylor. 1996. "Political Science and the Three New Institutionalisms." *MPIfG Discussion Paper*, no. 6.
- Hannoun, Hervé. 2012. "Monetary Policy in the Crisis: Testing the Limits of Monetary Policy." presented at the 47th SEACEN Governors' Conference, Seoul.
- Hanretty, Chris, and Christel Koop. 2013. "Shall the Law Set Them Free? The Formal and Actual Independence of Regulatory Agencies." *Regulation & Governance* 7 (2): 195–214.
- Havrilesky, Thomas. 1995. *The Pressures on American Monetary Policy*. Dordrecht: Kluwer Academic Publishers.
- Hayat, Muhammad, and Etienne Farvaque. 2012. "Public Attitudes towards Central Bank Independence: Lessons from the Foundation of the ECB." *Université Lille Nord de France Document de Travail*, no. 5.
- Hayo, Bernd. 1998. "Inflation Culture, Central Bank Independence and Price Stability." *European Journal of Political Economy* 14 (2): 241–63.
- Hayo, Bernd, and Pierre-Guillaume Méon. 2011. "Behind Closed Doors: Revealing the ECB's Decision Rule." *Joint Discussion Paper Series in Economics*, no. 35.
- Hayo, Bernd, Ulrich Neyer, and Hansjörg Herr. 2010. "Neue Geldpolitik Der Europäischen Zentralbank?" *Wirtschaftsdienst* 90 (8): 503–15.
- Hayo, Bernd, and Stefan Voigt. 2005. "Explaining de Facto Judicial Independence." *Marburger Volkswirtschaftliche Beiträge*, no. 7.
- . 2008. "Inflation, Central Bank Independence and the Legal System." *Journal of Institutional and Theoretical Economics* 164 (4): 751–77.
- Heinemann, Friedrich, and Felix P. Hübner. 2002. "Is the View From the Eurotower Purely European? National Divergence and the ECB Interest Rate Policy." *ZEW Discussion Paper*, no. 69.
- Heisenberg, Dorothee. 2003. "Cutting the Bank Down to Size: Efficient and Legitimate Decision-Making in the European Central Bank After Enlargement." *Journal of Common Market Studies* 41 (3): 397–420.
- Henning, Randall. 2015. "The ECB as a Strategic Actor: Central Banking in a Politically Fragmented Monetary Union." *School of International Service Working Paper*, no. 1.
- Hibbs, Douglas A. 1977. "Political Parties and Macroeconomic Policy." *The American Political Science Review* 71 (4): 1467–87.

- Hielscher, Kai, and Gunther Markwardt. 2012. "The Role of Political Institutions for the Effectiveness of Central Bank Independence." *European Journal of Political Economy* 28 (3): 286–301.
- Hofstede, Geert. "Dimension Data Matrix." <http://www.geerthofstede.nl/dimension-data-matrix>.
- Hofstede, Geert. 2001. *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nations*. 2nd ed. Thousand Oaks: Sage Publications.
- Hofstede, Geert. 1984. *Culture's Consequences: International Differences in Work-Related Values*. Abridged Edition. Cross-Cultural Research and Methodology Series. Beverly Hills: Sage Publications.
- Hooghe, Liesbet, and Gary Marks. 2005. "Calculation, Community and Cues. Public Opinion on European Integration." *European Union Politics*, no. 6: 419–43.
- Hooper, John, and Kim Wilsher. 2011. "European Central Bank Mounts Rescue for Italy and Spain – but Sets Its Price." *The Guardian*, August 8. <http://www.theguardian.com/business/2011/aug/08/debt-crisis-europeanbanks>.
- Howarth, David. 2007. "Running an Enlarged Euro-Zone – Reforming the European Central Bank: Efficiency, Legitimacy and National Economic Interest." *Review of International Political Economy* 14 (5): 820–41.
- Huber, John D., and Charles R. Shipan. 2000. "The Cost of Control: Legislators, Agencies and Transaction Costs." *Legislative Studies Quarterly* 25 (1): 25–52.
- Ifop Institute. 2010. "Europeans and the Greek Crisis." Ifop Institute.
- International Monetary Fund. "World Economic Outlook Database October 2014." <https://www.imf.org/external/pubs/ft/weo/2014/02/weodata/index.aspx>.
- Issing, Otmar. 2012. "Central Banks-Paradise Lost." *CFS Working Paper*, no. 6.
- . 2013. "A New Paradigm for Monetary Policy?" *CFS Working Papers*, no. 2.
- Jones, Erik. 2009. "Output Legitimacy and the Global Financial Crisis: Perception Matter." *Journal of Common Market Studies* 47 (5): 1085–1105.
- . 2015. "The ECB's Choice." *IISS Survival Editors' Blog*. <https://www.iiss.org/en/politics%20and%20strategy/blogsections/2015-932e/july-4457/the-ecbs-choice-f673>.
- Jost, Sebastian. 2015. "Weshalb Weidmann Mit Draghi Über Kreuz Liegt." *Welt Online*, January 25. <http://www.welt.de/wirtschaft/article136741126/Weshalb-Weidmann-mit-Draghi-ueber-Kreuz-liegt.html>.
- Käfer, Benjamin, and Jochen Michaelis. 2012. "Länderrisiko: Die Ökonomische Konsequenzen Einer Herabstufung Durch Die Rating-Agenturen." *Joint Discussion Paper Series in Economics*, no. 02.
- Kaiser, Stefan. 2011. "Bond-Buying Perils: ECB Risks Inflation and Loss of Independence." *Spiegel Online*, August 9. <http://www.spiegel.de/international/europe/bond-buying-perils-ecb-risks-inflation-and-loss-of-independence-a-779183.html>.
- Keefer, Philip, and David Stasavage. 2003. "The Limits of Delegation: Veto Players. Central Bank Independence and the Credibility of Monetary Policy." *American Political Science Review* 97 (3): 407–23.

- Klomp, Jeroen. 2009. "Central Bank Independence and Financial Instability." *Journal of Financial Stability* 5 (4): 321–38.
- Klomp, Jeroen, and Jakob De Haan. 2010. "Inflation and Central Bank Independence: A Meta Regression Analysis." *Journal of Economic Surveys* 24 (4): 593–621.
- Kollewe, Julia. 2015. "What the Experts Say about the ECB's Latest Round of QE." *The Guardian*, January 22. <http://www.theguardian.com/business/2015/jan/22/what-the-experts-say-about-the-eus-latest-round-of-quantitative-easing>.
- Konrad Adenauer Stiftung. 2015. "Chronologie Der Griechenland-Krise." Konrad Adenauer Stiftung. <http://www.kas.de/wf/de/190.6/y.2009-2013/>.
- Koshie, Grace. 2013. "Has the Global Financial Crisis Dented Central Bank Independence?" *Central Banking Journal*, November 16. <http://www.centralbanking.com/central-banking-journal/feature/2307057/has-the-global-financial-crisis-dented-central-bank-independence>.
- Landström, Mats. 2013. "Determinants and Effects of Central Bank Independence Reforms." Umea: UMEA University.
- Legrain, Philippe. 2015. "The ECB's Damned-If-You-Do QE Moment." *Foreign Policy*, January 21. <http://foreignpolicy.com/2015/01/21/the-ecbs-damned-if-you-do-qe-moment/>.
- Levy, Brian, and Pablo T. Spiller. 1994. "The Institutional Foundations of Regulatory Commitment: A Comparative Analysis of Telecommunications Regulations." *Journal of Law, Economics & Organization* 10 (2): 201–46.
- Lindbeck, Assar. 1976. "Stabilization Policy in Open Economies with Endogenous Politicians." *American Economic Review* 66 (2): 1–19.
- Lohmann, Susanne. 1992. "Optimal Commitment in Monetary Policy: Credibility versus Flexibility." *American Economic Review* 82 (1): 273–86.
- . 1998. "Federalism and Central Bank Independence: The Politics of German Monetary Policy, 1957-92." *World Politics* 50 (3): 401–46.
- . 2003. "Why Do Institutions Matter? An Audience-Cost Theory of Institutional Commitment." *Governance* 16 (1): 95–110.
- Lybek, Tonny, and JoAnne Morris. 2004. "Central Bank Governance: A Survey of Boards and Management." *IMF Working Paper*, no. 226.
- Mabbett, Deborah, and Waltraud Schelkle. 2015. "The Smile of the Cheshire Cat: Central Bank Independence after the Crisis." In *CES Conference*. Paris.
- Maggetti, Martino. 2007. "De Facto Independence after Delegation: A Fuzzy-Set Analysis." *Regulation & Governance* 1 (4): 271–94.
- Maier, Philipp, and Saskia Bezoen. 2004. "Bashing and Supporting Central Banks: The Bundesbank and the European Central Bank." *European Journal of Political Economy* 20 (4): 923–39.
- Maier, Philipp, Jan-Egbert Sturm, and Jakob De Haan. 2002. "Political Pressure on the Bundesbank: An Empirical Investigation Using the Havrilesky Approach." *Journal of Macroeconomics* 24 (1): 103–23.

- Majone, Giandomenico. 2001. "Nonmajoritarian Institutions and the Limits of Democratic Governance: A Political Transaction-Cost Approach." *Journal of Institutional and Theoretical Economics* 157 (1): 57–78.
- Manager Magazin. 2010. "EZB Lockert Regeln Für Griechen-Bonds." *Manager Magazin*, May 3. <http://www.manager-magazin.de/finanzen/artikel/a-692590.html>.
- Mangano, Gabriel. 1998. "Measuring Central Bank Independence: A Tale of Subjectivity and of Its Consequences." *Oxford Economic Papers* 50 (3): 468–92.
- Martin, Christopher, and Costas Milas. 2012. "Quantitative Easing: A Sceptical Survey." *Oxford Review of Economic Policy* 28 (4): 750–64.
- Martin, Fernando M. 2013. "Debt, Inflation and Central Bank Independence." *Federal Reserve Bank of St. Louis Working Papers*, no. 17.
- Maxfield, Sylvia. 1997. *The International Political Economy of Central Banking in Developing Countries*. Gatekeepers of Growth. Princeton: Princeton University Press.
- McCallum, Bennett T. 1997. "Crucial Issues Concerning Central Bank Independence." *Journal of Monetary Economics* 39 (1): 99–112.
- McKinsey Global Institute. 2013. "QE and Ultra-Low Interest Rates: Distributional Effects and Risks." McKinsey Global Institute.
- McNamara, Kathleen. 2006. "Economic Governance, Ideas and EMU: What Currency Does Policy Consensus Have Today?" presented at the Theory and Practice of Economic Governance in EMU Revisited: What Have We Learnt? Conference, London School of Economics, January 16.
- Meade, Ellen Elizabeth, and D. Nathan Sheets. 2002. *Regional Influences on U.S. Monetary Policy: Some Implications for Europe*. London: Centre for Economic Performance, the London School of Economics and Political Science.
- Meltzer, Allan H. 2013. "What's Wrong With the Federal Reserve: What Would Restore Independence?" *Business Economics* 48 (2): 96–103.
- Merkel, Angela. 2010. "Rede von Bundeskanzlerin Angela Merkel zur Verleihung des Internationalen Karlspreises an Premierminister Tusk." presented at the Verleihung des Internationalen Karlspreis, Aachen, May 13. <http://www.bundeskanzlerin.de/ContentArchiv/DE/Archiv17/Reden/2010/05/2010-05-13-karlspreis.html>.
- Meyer, Dirk. 2010. "Kredithilfe für Griechenland - Eine Ökonomische Analyse und Bewertung." *Kreditwesen*, no. 614: 20–25.
- Miller, Geoffrey. 1998. "An Interest-Group Theory of Central Bank Independence." *The Journal of Legal Studies* 27 (2): 433–53.
- Mink, Mark, and Jakob De Haan. 2012. "Contagion during the Greek Sovereign Debt Crisis." *DNB Working Paper*, no. 335.
- Mishkin, Frederic. 2000. "What Should Central Banks Do?" presented at the Homer Jones Lecture, St. Louis.
- Moe, Terry M. 1990. "Political Institutions: The Neglected Side of the Story." *Journal of Law, Economics & Organization* 6 (Special Issue): 213–53.
- Moser, Peter. 1999. "Checks and Balances, and the Supply of Central Bank Independence." *European Economic Review* 43 (8): 1569–93.

- Moss, Jones. 2015. "Just How Bad Is the Situation for Greek Banks?" *International Banker*. <http://internationalbanker.com/banking/just-how-bad-is-the-situation-for-greek-banks/>.
- Mukherjee, Bumba, and David Singer. 2007. "Monetary Institutions, Partisanship, and Inflation Targeting." In Midwest Political Science Association Conference. Chicago.
- Nakamoto, Michiyo, and David Wighton. 2007. "Citigroup Chief Stays Bullish on Buy-Outs." *Financial Times*, July 9. <http://www.ft.com/intl/cms/s/0/80e2987a-2e50-11dc-821c-0000779fd2ac.html#axzz3eicvSFym>.
- Nechio, Fernanda. 2011. "Monetary Policy When One Size Does Not Fit All." FRBSF Economic Letter. Federal Reserve Bank of San Francisco.
- Nordhaus, William. 1975. "The Political Business Cycle." *The Review of Economic Studies* 42 (2): 169–90.
- Nordsieck, Wolfram. "Parties & Elections." <http://www.parties-and-elections.eu/index.html>.
- North, Douglass N. 1993. "Institutions and Credible Commitment." *Journal of Institutional and Theoretical Economics* 149 (1): 11–23.
- Norwegian Social Science Data Services. "European Election Database." http://www.nsd.uib.no/european_election_database/about/.
- Orphanides, Athanasios. 2013. "Is Monetary Policy Overburdened?" *BIS Working Papers*, no. 435.
- Orrick, Herrington & Sutcliffe LLP. 2015. "Bank Resolution in Greece." *Orrick, Herrington & Sutcliffe LLP*. <https://www.orrick.com/Events-and-Publications/Pages/Bank-Resolution-in-Greece.aspx>.
- Panico, Carlo, and Francesco Purificato. 2013. "Policy Coordination, Conflicting National Interests and the European Debt Crisis." *Cambridge Journal of Economics* 37 (3): 585–608.
- Parkin, Michael. 2013. "Central Bank Laws and Monetary Policy Outcomes: A Three Decade Perspective." *EPRI Working Paper Series*, no. 1.
- Peersman, Gert, and Frank Smets. 1999. "The Taylor Rule: A Useful Monetary Policy Benchmark for the Euro Area?" *International Finance* 2 (1): 85–116.
- Petrova, Teodora D. 2010. "How European Is the European Central Bank's Monetary Policy?" *Honors Projects Illinois Wesleyan University*, no. 109.
- Pill, Huw. 2013. "Central Banking after the Crisis: Challenges for the ECB." In *Is Inflation Targeting Dead? Central Banking After the Crisis*, edited by Lucrezia Reichlin and Richard Baldwin, 126–32. London: Centre for Economic Policy Research.
- PIMCO. 2013. "Hyperactive Monetary Policy: The Good, the Bad and the Ugly." PIMCO Viewpoint. PIMCO.
- Polak, Petr. 2014. "The Euro Deflation Crisis. Europe, Japan, and the New Lost Decade." *Foreign Affairs*, May 28. <https://www.foreignaffairs.com/articles/western-europe/2014-05-28/euro-deflation-crisis>.
- Pollard, Patricia S. 1993. "Central Bank Independence and Economic Performance." *Federal Reserve Bank of St. Louis Review* 75 (4): 21–36.
- Posen, Adam S. 1995. "Declarations Are Not Enough: Financial Sector Sources of Central Bank Independence." In *NBER Macroeconomics Annual*, 10, edited by Ben Bernanke and Julio Rotemberg: 253–74. Cambridge, Mass.: MIT Press.

- Praet, Peter. 2015. "The APP Impact on the Economy and Bond Markets." presented at the ECB's Bond Market Contact Group, Frankfurt am Main, June 30.
- Randow, Jana. 2015. "Europe's QE Quandary." *BloombergView*. June 18. <http://www.bloombergview.com/quicktake/europes-qe-quandary>.
- Rawdanowicz, Lukasz, Romain Bouis, and Shingo Watanabe. 2013. "The Benefits and Costs of Highly Expansionary Monetary Policy." *OECD Working Paper* 74 (1082).
- Reichlin, Lucrezia. 2013. "Challenges to Inflation Targeting after the Crisis." In *Is Inflation Targeting Dead? Central Banking After the Crisis*, edited by Lucrezia Reichlin and Richard Baldwin, 134–39. London: Centre for Economic Policy Research.
- Reuter, Wolfgang. 2010. "ECB Buying up Greek Bonds: German Central Bankers Suspect French Intrigue." *Spiegel Online*, May 31. <http://www.spiegel.de/international/europe/ecb-buying-up-greek-bonds-german-central-bankers-suspect-french-intrigue-a-697680.html>.
- Ringquist, Evan J., Jeff Worsham, and Marc Allen Eisner. 2003. "Salience, Complexity, and the Legislative Direction of Regulatory Bureaucracies." *Journal of Public Administration Research and Theory* 13 (2): 141–64.
- Rogoff, Kenneth. 1985. "The Optimal Degree of Commitment to an Intermediate Monetary Target." *The Quarterly Journal of Economics* 100 (4): 1169–89.
- Rudebusch, Glenn. 2010. "The Fed's Exit Strategy for Monetary Policy." 18. FRBSF Economic Letter. Federal Reserve Bank of San Francisco.
- Ruparel, Raoul. 2015. "Quantitative Easing in the Eurozone: Limited Economic Benefits at a High Legal and Political Cost." Briefing Eurozone & Finance. Open Europe. <http://openeurope.org.uk/intelligence/eurozone-and-finance/ecb-quantitative-easing/>.
- Sacchi, Stefano. 2015. "Conditionality by Other Means: EU Involvement in Italy's Structural Reforms in the Sovereign Debt Crisis." *Comparative European Politics* 13 (1): 77–92.
- Sandholtz, Wayne. 1993. "Choosing Union: Monetary Politics and Maastricht." *International Organization* 47 (1): 1–39.
- Sargent, Thomas, and Neil Wallace. 1981. "Some Unpleasant Monetarist Arithmetic." *Federal Reserve Bank of Minneapolis Quarterly Review* 5 (3): 1–17.
- Scharnagl, Michael, and Jelena Stapf. 2014. "Inflation, Deflation, and Uncertainty: What Drives Euro Area Option-Implied Inflation Expectations and Are They Still Anchored in the Sovereign Debt Crisis?" *Deutsche Bundesbank Discussion Paper*, no. 24.
- Scharpf, Fritz. 2011. "Monetary Union, Fiscal Crisis and the Preemption of Democracy." *MPIfG Discussion Paper*, no. 11.
- . 2012. "Legitimacy Intermediation in the Multilevel European Polity and Its Collapse in the Euro Crisis." *MPIfG Discussion Paper* 6.
- . 2013. "Political Legitimacy in a Non-Optimal Currency Area." *MPIfG Discussion Paper* 15.
- . 2014. "No Exit from the Euro-Rescuing Trap?" *MPIfG Discussion Paper* 4.
- Scheller, Hanspeter K. 2006. *The European Central Bank: History, Role and Functions*. 2nd ed. Frankfurt am Main: European Central Bank.
- Scheve, Kenneth. 2004. "Public Inflation Aversion and the Political Economy of Macroeconomic Policymaking." *International Organization* 58 (1): 1–34.

- Schwäbe, Carsten. 2013. "Unkonventionelle Geldpolitik: Warum Die Europäische Zentralbank Ihre Unabhängigkeit Nicht Verloren Hat." *Discussion Paper Center for Interdisciplinary Economics* 3.
- Scicluna, Nicole. 2013. "Politicization without Democratization: The Impact of the Eurozone Crisis on EU Constitutionalism." *Carlo Alberto Notebooks*, no. 341.
- Seidel, Martin. 2003. "Die Weisung- Und Herrschaftsmacht Der Europäischen Zentralbank Im Europäischen System Der Zentralbanken - Eine Rechtliche Analyse." In *Festschrift Für Wilhelm Nölling Zum 70. Geburtstag*, edited by Wilhelm Hankel, Karl Schachtschneider, and Joachim Starbatty. Stuttgart: Lucius & Lucius.
- Seith, Anne. 2014. "Monetary Fallacy? Deep Divisions Emerge over ECB Quantitative Easing Plans." *Spiegel Online*, November 3. <http://www.spiegel.de/international/business/deep-divisions-emerge-over-ecb-quantitative-easing-plans-a-1000713.html>.
- Siklos, Pierre L. 2008. "No Single Definition of Central Bank Independence Is Right for All Countries." *European Journal of Political Economy* 24 (4): 802–16.
- Sinn, Hans-Werner. 2010. "Rescuing Europe." *CESifo Forum*, no. 11.
- . 2013. "Verantwortung Der Staaten Und Notenbanken in Der Eurokrise." Gutachten Im Auftrag Des Bundesverfassungsgerichts, Zweiter Senat. Ifo Institut. http://www.cesifo-group.de/Sinn-Juni2013_EZB-Kurs.
- . 2015. "The Greek Tragedy." *CESifo Forum* Special Issue June 2015.
- Speciale, Alessandro, Karl Stagno Navarra, and Christos Ziotis. 2015. "ECB Said to Raise Greece's ELA Ceiling by 1.1 Billion Euros." *Bloomberg Business*. <http://www.bloomberg.com/news/articles/2015-06-17/ecb-said-to-raise-greece-s-ela-ceiling-by-1-1-billion-euros>.
- Spiegel Online. 2010a. "Deutsche Regierung Ärgert Sich Über Druck Der Finanzmärkte." *Spiegel Online*, March 2. <http://www.spiegel.de/wirtschaft/soziales/griechen-krise-deutsche-regierung-aergert-sich-ueber-druck-der-finanzmaerkte-a-681253.html>.
- . 2010b. "Staatsanleihen-Rating: EZB Verwässert Für Griechen-Rettung Ihre Regeln." May 3. <http://www.spiegel.de/wirtschaft/soziales/staatsanleihen-rating-etz-verwaessert-fuer-griechen-rettung-ihre-regeln-a-692602.html>.
- Stark, Jürgen. 2010. „Wir haben Zeit gekauft, mehr nicht.“ *Frankfurter Allgemeine Zeitung*. <http://www.faz.net/aktuell/wirtschaft/eurokrise/ezb-chefoekonom-stark-wir-haben-zeit-gekauft-mehr-nicht-1977777.html>.
- Stasavage, David, and Dominique Guillaume. 2002. "When Are Monetary Commitments Credible? Parallel Agreements and the Sustainability of Currency Unions." *British Journal of Political Science* 32 (1): 119–46.
- Steenkamp, Jan-Benedict, and Inge Geyskens. 2012. "Transaction Cost Economics and the Roles of National Culture: A Test of Hypotheses Based on Inglehart and Hofstede." *Journal of the Academy of Marketing Science* 40 (2): 252–70.
- Steinberg, David, and Stefanie Walter. 2013. "The Political Economy of Exchange Rate Policy." In *Handbook of Safeguarding Global Financial Stability: Political, Social, Cultural, and Economic Theories and Models*, edited by Gerard Caprio, 2nd ed., 27–36. Oxford: Elsevier.

- Stella, Peter. 2010. "Minimizing Monetary Policy." *BIS Working Papers*, no. 330.
- Streeck, Wolfgang. 2015. "Germany Can't Solve This Alone." *Le Monde Diplomatique - English Edition*, no. 5.
- Sturm, Jan-Egbert, and Jakob De Haan. 2001. "Inflation in Developing Countries: Does Central Bank Independence Matter?" *CESifo Working Paper Series*, no. 511.
- Subacchi, Paola. 2015. "Will Quantitative Easing Work for Europe?" *Newsweek*, January 27. <http://www.newsweek.com/will-quantitative-easing-work-europe-302405>.
- Tagesschau. 2015. "Griechenlands Weg in Die Krise." [Tagesschau.de. http://www.tagesschau.de/wirtschaft/griechenland640.html](http://www.tagesschau.de/wirtschaft/griechenland640.html).
- Taylor, John B. 1993. *Macroeconomic Policy in a World Economy: From Econometric Design to Practical Operation*. New York: W.W. Norton.
- . 2012. "Monetary Policy Rules Work and Discretion Doesn't: A Tale of Two Eras." *Journal of Money, Credit and Banking* 44 (6): 1017–32.
- . 2013. "The Effectiveness of Central Bank Independence Versus Policy Rules." *SIEPR Discussion Paper* 12 (9).
- Thatcher, Mark. 2005. "The Third Force? Independent Regulatory Agencies and Elected Politicians in Europe." *Governance: An International Journal of Policy, Administration, and Institutions* 18 (3): 347–73.
- . 2011. "Delegation to Independent Regulatory Agencies: Pressures, Functions and Contextual Mediation." *West European Politics* 25 (1): 125–47.
- Thatcher, Mark, and Alec Stone Sweet. 2002. "Theory and Practice of Delegation to Non-Majoritarian Institutions." *Yale Law Faculty Scholarship Series*, no. 74.
- The Economist. 2015. "Greece's Creditors Allow a Bit More Money to Flow." *The Economist*, July 16. <http://www.economist.com/blogs/freeexchange/2015/07/ecb-and-greek-banks>.
- The Guardian. 2010. "Fears over Greek Bailout Send Shares and Euro Tumbling." *The Guardian*, May 14. <http://www.theguardian.com/business/2010/may/14/nicolas-sarkozy-threatened-euro-withdrawal>.
- Tomz, Michael. 2007. "Domestic Audience Costs in International Relations: An Experimental Approach." *International Organization* 61 (4): 821–40.
- Tonveronachi, Mario. 2015. "Making the ECB the Central Bank of a Non-Federal Coalition of States." *PSL Quarterly Review* 68 (273): 91–114.
- Trichet, Jean-Claude. 2010. Interview with Jean-Claude Trichet, President of the ECB. *Le Monde*. https://www.ecb.europa.eu/press/inter/date/2010/html/sp100531_1.en.html.
- Turner, Philip. 2014. "The Exit from Non-Conventional Monetary Policy: What Challenges?" *BIS Working Papers*, no. 448.
- Ullrich, Katrin. 2003. "Unabhängigkeit Und Verantwortlichkeit Der Europäischen Zentralbank." *ZEW Discussion Paper* 3 (65).
- . 2004. "Decision-Making of the ECB: Reform and Voting Power." *ZEW Discussion Paper*, no. 70.
- Vaubel, Roland. 1999. "The Future of the Euro: A Public Choice Perspective." *Beiträge Zur Angewandten Wirtschaftsforschung, Universität Mannheim*, no. 570.

- . 2011. “Die Politische Ökonomie Der Bail-out-Politik Der Eurozone.” http://www.vwl.uni-mannheim.de/vaubel/pdf-Dateien/Die_Politische_Oekonomie_der_Bail-out-Politik_in_der_Eurozone.pdf.
- Von Hagen, Jürgen, and Susanna Mundschenk. 2001. “The Political Economy of Policy Coordination in the EMU.” *Swedish Economic Policy Review* 8 (1): 107–37.
- Walker, Marcus, Charles Forelle, and Stacy Meichtry. 2011. “Deepening Crisis Over Euro Pits Leader Against Leader.” *Wall Street Journal*, December 30. <http://www.wsj.com/articles/SB10001424052970203391104577124480046463576>.
- Walsh, Carl E. 2008. “Central Bank Independence.” In *The New Palgrave Dictionary of Economics*, edited by Steven N. Durlauf and Lawrence E. Blume, 2nd ed., 728–31. Basingstoke: Nature Publishing Group.
- Warner, Jeremy. 2015. “Is QE a Defeat for Germany, or a Strategic Retreat?” January 24. <http://www.telegraph.co.uk/finance/financetopics/davos/11367403/Is-QE-a-defeat-for-Germany-or-a-strategic-retreat.html>.
- Watson, Matthew. 2002. “The Institutional Paradoxes of Monetary Orthodoxy: Reflections on the Political Economy of Central Bank Independence.” *Review of International Political Economy* 9 (1): 183–96.
- Weidmann, Jens. 2015a. Darum haben wir gegen das Billionen-Paket der EZB gestimmt. Bild. https://www.bundesbank.de/Redaktion/DE/Interviews/2015_01_24_weidmann_bild.html.
- . 2015b. Purchase of government bonds harbours risks. Bericht aus Berlin. http://www.tagesschau.de/bab-3151~_bab-sendung-173.html.
- White, William R. 2012. “Ultra Easy Monetary Policy and the Law of Unintended Consequences.” *Federal Reserve Bank of Dallas Working Papers*, no. 126.
- Wilson, James, Robin Wigglesworth, and Brian Groom. 2012. “ECB ready to do whatever it takes.” *Financial Times*, July 26. <http://www.ft.com/intl/cms/s/0/6ce6b2c2-d713-11e1-8e7d-00144feabdc0.html#axzz3eicvSFym>.
- Winkler, Adalbert. 2015a. “Auf Dem Tiefpunkt: Die Deutsche Geldpolitikdebatte.” *Ökonomenstimme*. February 27. <http://www.oekonomenstimme.org/artikel/2015/02/auf-dem-tiefpunkt-die-deutsche-geldpolitikdebatte/>.
- . 2015b. “Auf Hayeks Spuren: Die Argumentation Gegen Die EZB-Staatsanleihenkäufe.” *Ökonomenstimme*. March 23. <http://www.oekonomenstimme.org/artikel/2015/03/auf-hayeks-spuren-die-argumentation-gegen-die-ezb-staatsanleihenkaeufe/>.
- Wissenschaftlicher Beirat beim Bundesministerium für Wirtschaft und Technologie. 2011. “Überschuldung Und Staatsinsolvenz in Der Europäischen Union.” 11. Gutachten. Bundesministerium für Wirtschaft und Technologie.
- Woodruff, David. 2014. “Governing by Panic: The Politics of the Eurozone Crisis.” *LSE Europe in Question Discussion Paper*, no. 81.

- Wrobel, Ralph. 2010. "Geldpolitik Und Finanzmarktkrise: Das Konzept Der 'Unabhängigen Zentralbank' Auf Dem Ordnungspolitischen Prüfstand." *Ordnungspolitische Diskurse* (09).
- Wyplosz, Charles. 2011. "Changing of the Guard at the ECB." Directorate General for Internal Policies. Policy Department A: Economic and Scientific Policy.
- . 2014. "Is the ECB Doing QE?" *VoxEU.org*. December 9. <http://www.voxeu.org/article/ecb-doing-qe>.
- Zalc, Julien. 2013. "The Europeans' Attitudes About Europe: A Downturn Linked Only To The Crisis?" *Robert Schuman Foundation Policy Paper*, no. 277.
- Zeit Online. 2009. "EU Nimmt Griechenland in Die Pflicht." *Zeit Online*, December 11. <http://www.zeit.de/politik/ausland/2009-12/griechenland-eu-gipfel>.
- Zingales, Luigi. 2011. "Debt Crisis: ECB in the Italian Trap." *Il Sole - 24 Ore*, June 9. <http://www.voxeurop.eu/de/node/918861>.