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The ECB as a servant of the euro

The development of the EMU's fiscal and monetary responsibilities after the euro crisis

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1. Introduction

"The euro is like a bumblebee," Mario Draghi stated at the deepest stage of the euro crisis in summer 2012. According to Draghi, the financial crisis showed that the bumblebee would have to graduate to a real bee. Draghi ended his speech to legendary "whatever it takes" promise which practically ended the sovereign debt crisis. (Draghi 2012.) The euro crisis meant a significant transformation for the European Central Bank. Although the ECB's mandate has not changed, it started to act as a lender of last resort and withdrew from the ordoliberal ideals demanded by the Deutsche Bundesbank (De Grauwe 2012) Vítor Constâncio, the ECB vice president during the euro crisis doubted whether it would be possible at all to go back to "the simple life of monetary policy as it used to be, with very small central bank balance sheets and just policy targeting the overnight money market rate" (Constâncio 2018).

The reactions to the ECB's transformation has been mainly critical. Jürgen Stark, the former chief economist of the ECB, has argued that the ECB's strategic shift is turning the institution into a "bad bank" (Stark 2014). It has claimed that the ECB has reinterpreted its mandate by "stealth" and that new unconventional measures include fiscal functions making the objectives of the monetary policy less clear (Schmidt 2016; Högenauer & Howarth 2016). New monetary instruments and new macroprudential tasks have been seen to question the ECB's independence (Buiter 2014; Weber &

Forschner 2014). Additionally, the ECB's political intervention and the vital role in managing the euro crisis have raised serious questions about the EMU's long-term legitimacy (Ioannou, Leblond & Niemann 2015; Dietsch et al 2018).

These critiques reflect the broader change of central banking after the financial crisis. Central bank independence was institutionalized as an ideal for organizing the relationship between fiscal and monetary authorities after the inflation crises of the 1980s (Singleton 2011). However, instead of accelerating inflation and booming economy, deflationary pressures, protectionism, and trade wars seem to cause a headache for current central bankers. Conventional monetary policy based on maintaining rational expectations through scientific argumentation and publication of data, but after the financial crisis and large scale interventions it has been harder to argue for the neutral nature of central banking (Marcussen 2009 & Cooper 2019.) Changes in the economic environment, unconventional measures, and central banks' difficulties in achieving their price stability goals have lead to questioning current price stability goals as well as the basic principles of central bank independence. (Blanchard et al. 2010, Bernanke 2017 & Summers 2017.) Moreover, there have been calls for greater coordination between treasuries and central banks for avoiding the Japanification of low inflation, low growth, low-interest rates, and lost generations both in Europe and the United States (El-Erian 2019 & Wray 2019).

For understanding more precisely the ECB's monetary policy after the financial crisis, this article studies the evolution of the relationship between the ECB and euro countries during the euro crisis. I argue that central bank independence is not a sufficient measure to review the nature of central banking in the post-financial crisis world. Generally, politicians define monetary goals for central banks, and the scope of central bank independence is determined by the central bank's ability to reinterpret its goals as well as develop instruments and define a strategy for achieving these goals without political interference (Blinder 1999). However, the central bank's success for fulfilling its mandate and affecting positively broader macroeconomic conditions depends on the interplay with other macroeconomic actors such as financial market actors, fiscal authorities, financial regulators, wage-setters and constitutional courts (Fernández-Albertos 2015). I argue that the ECB's ability to create new instruments has not increased the ECB's independence from the euro countries, but instead, the single currency's lacking fiscal capacity has increased the ECB's responsibilities for bailout single currency. The article argues that politicians can benefit passively from central bank independence leading to overburdening of central banks, which can be countered only with better coordination between fiscal and monetary authorities.

The structure of the article is as follows. Chapter 2 outlines the EMU's economic framework according to the treaties, and chapter 3 concludes the critiques of the economic framework. Chapters 4-6 reviews the interplay with the ECB, euro countries and constitutional courts and especially, how the EMU's economic framework was reinterpreted during the euro crisis. Chapter 4 contains a short history of the euro crisis from 2009 to 2012. Chapter 5 studies the legal justification of stability mechanisms and the ECB's interventions. I argue that EMU's economic framework was reinterpreted by dampening the market discipline and strengthening politically coordinated fiscal discipline. Chapter 6 focuses on the relationship between the ECB and euro countries after the euro crisis. I argue that the institutional response to the euro crisis took the shape of Franco-German compromise: Germany has demanded that fiscal integration would not take place before the economic convergence, but at the same time the ECB has abandoned the Bundesbank style central banking increasing the joint responsibility between the euro member states. Chapter 7 analyses this fundamentally unbalanced and contradictory approach between fiscal and monetary authorities more detailed in the light of the next global slowdown. The last chapter concludes my argument that without significant fiscal capacity, the ECB might evolve as a servant of the euro regardless of its fundamental independence.

2. The economic framework of the EMU

The history of the EMU starts after the breakup of the gold standard when the European Economic Community decided in 1972 to maintain exchange rates with maximum fluctuations of 2.25 percent. The “currency snake” was replaced in 1979 by the European Monetary System (EMS). Although the idea of a single currency was surfaced already by the Werner report in 1970, the establishment of a monetary union started to proceed in the late 1980s after the sudden German reunification created a historical motive for the single currency.

The euro was hoped to commit unified Germany to Europe, and additionally reduce the influence of Deutsche Bundesbank. Germany, in turn, accepted the sacrifice of Deutsche Mark only in the condition that the European Central Bank was made as independent as the Bundesbank and focused solely on price stability. France accepted terms because it thought that at least the ECB should take into account the economic situation of the whole eurozone whereas the Bundesbank reacted only to the developments of Germany. (Marsch 2011.) The committee chaired by the Commission president Jacques Delors set out the blueprint for the single currency in 1989, and the Delors Report was incorporated with only minor changes in the Maastricht Treaty in 1992 setting the minimum criteria and three-stage timeline for implementing the single currency in January 1999. (McNamara 1998 & Verdun 1999). The Maastricht deal was a compromise between German and French views regarding the integration - Germany (and supported by Netherlands) thought that economic convergence must precede monetary union while France (and supported by Italy) claimed on the contrary that monetary union will produce economic converge. Although Germany dictated the institutional setting of the EMU, the French vision of integration won by specifying fixed dates for monetary union. (Connolly 2012).

The European Monetary Union (EMU) is an extraordinary institutional setting because the European Central Bank is practically the most independent central bank in the world. The article 127 of the Treaty on the Functioning of the European Union (TFEU) defines price stability as a primary objective of the ECB. The ECB's ability to focus on maintaining price stability has been tried to guarantee by significant institutional, instrumental, financial, and personal independence. Institutional independence prohibits national governments or EU institutions to influence the ECB's structure, functioning, decision-making, or exercise of powers. Additionally, the ECB is not allowed to seek or take instructions from these bodies (TFEU 130). For minimizing national political pressures, every central banker has only one vote in the governing council which makes decisions on the ECB’s monetary policy.[1] Although politicians nominate central bankers (TFEU 283), the members of the governing council cannot be fired because of the misconduct of monetary policy. The tenures in the executive board are eight years and in the national central banks at least five years. Lastly, the ECB has its own budget, which is financed by national central banks (TFEU 282).

[1] The governing council consists of six ECB executive board members and currently 19 governors of national central banks. After Lithuania joined the single currency, rotation of voting rights was introduced which favors five biggest economis.

For justifying technocratic decision-making, the ECB has responsibilities to explain and rationalize its decisions and strategies. The ECB addresses an annual report to the European Parliament, the Council and the Commission. The ECB president and vice-president hold a press conference after every monetary policy meeting, and the president also takes part in the monetary dialogue with the Parliament. The ECB has published its staff macroeconomic projections for the euro area since 2004, and it started to publish the minutes of its monetary policy meetings in 2015. However, because decisions cannot be vetoed, central bankers cannot be fired, and decision-making processes are not transparent, the lack of ECB's accountability has been a broad subject of debate even before the euro crisis (Patomäki 1997, De Haan and Eijffinger 2000 & Howarth and Loedel 2005).

Although the TFEU defines price stability as a primary monetary objective, it does not give a specific definition of price stability. That gives the ECB autonomy to define its own price stability goal, as well as tools and longer-term monetary strategy for achieving the goal. A former member of Deutsche Bundesbank's executive board and the first chief economist of the ECB, Otmar Issing, developed the ECB's "stability-oriented monetary strategy" which based on two pillars of growth of monetary aggregates and broader macroeconomic developments. However, in 2003 the ECB abandoned targeting of monetary aggregates and clarified that it aims to maintain inflation rates "below, but close to, 2 percent over the medium term". By reviewing its monetary strategy, it moved from Bundesbank style monetary policy towards flexible inflation targeting.

Because the ECB's mandate is an international treaty, changing the ECB's mandate requires unanimity between the EU states and ratifications in national parliaments. Although the modification of the ECB's mandate is politically challenging, the ECB can independently change its monetary goal and monetary strategy because of its ultimate goal and instrument independence. At the time of writing, there have been demands for reviewing the ECB's monetary strategy again. (ECB 2019a; Constâncio 2018 & Rehn 2019.)

In addition to the extremely independent central bank, the euro's other unique feature is that the euro is "a currency without a state." That means that the ECB does not have a fiscal counterpart, i.e. euro area central government, budget, or income transfers between regions (Padoa-Schioppa 2004). The specific character of the EMU's economic framework is the relationship between monetary and fiscal policies: monetary policy is supranational and independent from eurozone member states, and fiscal policies are national but coordinated via the rule-based framework. Instead of the eurozone finance ministry, the unity of fiscal policies was tried to ensure through the Stability and the Growth Pact (SGP). The SGP strives to limit euro member states' government deficit to 3 percent of the country's gross domestic product (GDP) and public debt to 60 percent of GDP. Additionally, the SGP includes monitoring of countries' expected fiscal developments (preventive arm) and procedures for countries overstepping limits (corrective arm & excessive deficit procedure). (Heipertz & Verdun 2010.)

It is noteworthy that although the EMU's economic framework is a rule-based system, it includes a considerable amount of political discretion. When the negotiations about the Stability and Growth pact started in 1995, German finance minister Theo Waigel proposed that a euro country breaching the deficit limit should automatically make a non-interest bearing deposit which would be refunded only if country manage to bring the deficit under the limit within two years (Waigel 1995). However, it was legally and politically challenging to introduce automatic sanctions in the excessive deficit procedure, and in the end, the SGP's sanctions were reduced a discretionary measure decided by the eurozone finance minister in the ECOFIN Council with a qualified majority. However, when the Commission recommended sanctions for Germany and France after breaking the deficit rule in 2003, two biggest countries lobbied enough countries not to follow the Commission's recommendation so that the required qualified majority could not be reached for adopting the sanctions.

The Commission asked the European Court of Justice to review the Council's decision, and the ECJ ruled that the Council had the right not to adopt the Commission's proposal, but also that ministers have not right to make its own conclusions from the Commission's recommendations. (Heipertz & Verdun 2010.) Franco-German maneuver underlined the political nature of the EMU's rule-based economic framework. It was criticized for creating the impression that the only smaller countries need to adhere to the fiscal rules (Issing 2008, 199). The maneuver has also been criticized for suspending the SGP and opening the door for not following the rules which lead to the euro crisis (Joerges 2014).

Additionally, the economic framework contains rules regarding monetary policy. The article 123 prohibits the ECB financing euro member states or public institutions, and the article 125 prohibits bailouts and joint responsibility of public debts. The SGP restrictions, the monetary financing prohibition, and the no-bailout rule were assumed to create "a sanctioning mechanism," punishing unsound fiscal policies with higher interest rates. It was hoped that the mere awareness of this sanctioning mechanism would ensure sound fiscal policies. However, although eurozone countries have had permanent difficulties to respect the SGP and the eurozone's overall public debt has not ever been below 60 percent, the sanction of higher interest rates was very limited before the euro crisis.

The euro's rule-based economic framework is profoundly influenced by German ordoliberalism and supply-side economics (Joerges 2004, Majone 2011 & Miettinen 2016). The economic framework aims to ensure fiscal discipline and monetary dominance. Fiscal discipline refers to a situation in which the government's revenues and expenditures are in balance, and the ECB can focus on its price stability objective. On the contrary fiscal dominance is the situation in which a substantial government debt and deficit force the ECB to prevent the government's bankruptcy possible derailing its primary objective. The ECB's monetary policy reacts to economic developments in the eurozone as a whole, but the economic conditions of individual member states can vary over time. Because the single currency lacks central government and revenue sharing for offsetting divergent economic developments in individual euro countries, the euro member states are responsible for sound fiscal policies and structural reforms of labor markets for ensuring the convergence of the euro area.

The proper functioning of the EMU requires that both monetary and fiscal authorities succeed in their responsibilities. Issing underlined just before the breakup of the euro crisis that only a small rise in interest rates would not guarantee deficit countries to drop unsound policies, but instead a real external crisis without bailouts or central bank acting as a lender of last resort could raise fears of country's solvency leading possibly to circumvent the no-bail-out clause. Issing concluded that because sanctions imposed by the market interest rates are insufficient, rules must guarantee sustainable budget policies "so that the case of sovereign insolvency due to over-indebtedness never arises and the no-bail-out principle is never put to the test." (Issing 2008, 196.) Issing stated that euro countries need to create economic conditions whereby the single monetary policy does fit all (Issing 2008, 219)

3. The critiques of the EMU's economic framework

After the signing of the Maastricht Treaty, it was criticized that the proponents of single currency overestimated economic benefits (mainly reduced transaction costs and transparency of prices), while underestimated the political risks associated with the loss of exchange rate adjustment and the absence of coordinated action between fiscal and monetary authorities in the case of asymmetric shocks.

Many American economists worried that the eurozone did not meet the criteria of an optimal currency area (Mundell 1961). A common currency was a favorable option for the US because its citizens speak the same language, and goods, capital, and labor can move freely from state to state. Instead, the EMU was composed of separate nations with different languages as well as industrial and employment practices. Because the ECB responds to overall developments of the eurozone instead of a particular country, economic shocks can be addressed mainly through increasing competitiveness through reducing labor costs and allowing increasing unemployment. For example, Milton Friedman argued that flexible exchange rates could respond more efficiently to declining competitiveness or aggregate demand, and hence soften the political blow of economic shocks. (Friedman 1997.)

In addition to economic dispersion and labor market rigidities, the EMU's institutional settings were criticized as flawed. In the EMU the money creation is the responsibility of the ECB, which makes monetary policy independently from the member states, which are responsible for sound fiscal policies. The economic framework made the relationship between the euro countries and the ECB more similar to the relation between the treasuries of member states of the US and the Federal Reserve than it is of the US Treasury and the Fed. In the US, states finance spending by taxation and borrowing, but they do not have the power to create currency. In the United States, states can rely on the help of the government at the events of crisis, but the EMU's economic framework particularly denies this kind of help of joint responsibility. (Wray 1998.) The ECB's monetarist mandate without supervisory responsibilities and the explicit prohibition to act as a lender of last resort was seen as a recipe for economic crises. (Arestis et al 2001.)

Additionally, the separation of fiscal and monetary authorities combined with limited ability to run public deficits were criticized for leading to insufficient stimulus in the event of economic shocks (Arestis et al. 2001). For example economist group lead by Sir Donald MacDougall suggested that the establishment of monetary union would require at least the budget of 5-7 percent of GDP allowing sufficient geographical equalization of productivity, and cushioning of temporary fluctuations to support monetary union, while the supply of social and welfare services would remain at the national level (MacDougall 1977).[2] At the time of writing, the eurozone does not have a budget, but the Stability and Growth Pact allows aggregate 3 percent deficit spending for automatic stabilizers to maneuver. However, maximal deficit spending requires that the budgets of member states are in balance, and otherwise, euro countries with deficits need to refrain from the stimulus or even face excessive deficit procedure and economic sanctions.

[2] The full federal state would require the budget of 20-25 percent of GDP. The economist group was tasked by the European commission in 1974 to examine the role of public finance in the context of general economic integration suggested and the report was based on the studies of five federations (Germany, the United States, Canada, Australia, and Switzerland) and three unitary states (France, Italy and the United Kingdom). Currently, the federal budgets of the United States and Germany are about 20 percent and 40 percent compared to the GDP.

Wynne Godley stated that the fundamental flaw of the EMU is that the Maastricht Treaty did not create a euro zone-wide government for exercising the sovereign's macroeconomic functions after euro countries had lost them. Because of that euro countries loose traditional macro-economic instruments (like ability to devalue, finance deficits, and change interest rates) but at the same time the EMU lacks government which would determine the correct overall burden of taxation, optimum overall level of public provision (for health, education, pensions, rates of unemployment benefit, etc.), and the correct allocation of total expenditures between competing requirements. Godley stated that establishing only an independent central bank to run integrated and supra-national Europe implies that the founders of Maastricht supposed that economies are self-righting organisms which do not need management at all, and moreover that governments are unable to achieve traditional economic policy goals like growth or full employment. (Godley 1992.)

The political problems arising from the institutional flaws were commonly anticipated before the introduction of the euro. Although the founders of the euro hoped to increase economic convergence, many feared that the euro could convert economic shocks into political conflicts between the euro countries. (Friedman 1997 & Feldstein 1997.) Without anticipated convergence, the EMU's sustainability-oriented economic framework was assumed to enforce inappropriate fiscal policies, contain automatic stabilization, and lead towards permanent deflationary pressures (Goodhart 1997). The unfettered capital mobility, combined with insufficient financial supervision and nonexistent crisis management, was expected to lead to financial crises (Arestis et al 2001). It was also anticipated that the global downturn could collapse the eurozone and for avoiding the breakup the economic framework should be reinterpreted, the ECB start to act as lender of last resort, and the eurozone budget, as well as income transfers, introduced. (Issing 2008, Arestis et al 2001, Friedman 2004, Feldstein 1997). The critiques were farsighted, and after the breakup of the euro crisis, the EMU's economic framework was reinterpreted relatively quickly. In the following chapters, I examine more detailed how did the euro crisis influence the EMU's economic framework as well as the relationship between the ECB and euro countries.

4. The short history of the euro crisis[3]

Despite the moderate economic convergence among the euro member states, interest rate spreads converged after the launch of the euro. The EMU meant liberalization of capital markets, but national financial supervisors could not control transnational indebtedness between different regions of the eurozone. Raising indebtedness increased the toxic interdependence between member states and their banks because the EMU did not have a common crisis resolution for the failing banks, but the sovereigns were fully responsible for their banking sectors. In the end, the vicious circle between sovereigns and banks manifested as a euro crisis.

The euro crisis started in Greece after the general elections of 2009. The new prime minister George Papandreou found that Greece's deficits were much more serious than officially anticipated by the previous government. The global investors started to fear the solvency and default of Greece because the EMU did not have any crisis resolution mechanisms, and bailouts and monetary financing were

[3] Good summaries and inside stories of the euro crisis have been published widely. Here I rely on Marsh 2011, Irwin 2014, Djankov 2014, Bastasin 2015, Mitchell 2015, Brunnermeier et al. 2016, Varoufakis 2017 & Mody 2018.

forbidden. Instead of ensuring sound fiscal policies, the market discipline turned into market panic when investors started to fear solvency and defaults of other countries.

The leaders of Germany, France, the European Commission, the Eurogroup, and the European Central Bank had started to unofficially to prepare for the eurozone crisis after the bankruptcy of Lehman Brothers. However, the separation of monetary and fiscal policies affected fundamentally to the overall euro crisis management. The ECB has exclusive competence for the monetary policy, but decisions about economic policies and fiscal policy coordination are made solely at the national level. Because of this, Germany's domestic political situation also shaped the overall crisis response. After the ratification of the Lisbon Treaty, the German Constitutional Court (Bundesverfassungsgericht, BverfG) had ruled that no further delegation of sovereignty to the EU could be made without the approval of German Bundestag. In addition, Angel Merkel's second cabinet was formed with the Christian democratic union (CDU/CSU) and the Free Democratic Party (FDP) in October 2009. So when the euro crisis started, Germany's federal government, constitutional court, and general opinion were highly skeptical, if not hostile, towards public bailouts involving German taxpayers' money.

Merkel stated that if the euro collapses, the whole idea of the European union will also fail. (Merkel 2010.) The so-called Troika was formed in April 2010 when the Eurogroup assigned the European Commission, the ECB, and the International Monetary Fund (IMF) to prepare the bailout package for Greece. In the end, the no-bailout-rule was reinterpreted relatively quickly: during the second weekend of May 2010 eurozone leaders decided to give a €107 billion bailout to Greece and to establish €500 billion temporary European Financial Stability Facility (EFSF). Although the common narrative is that bailout packages helped crisis countries to avoid sovereign bankruptcy and widespread banking crises, they also protected banks and governments of the core. The total exposure of Franco-German banks to Greece, Ireland, Portugal, Italy, and Spain exceeded €1.9 trillion dollars in 2008 when the euro crisis started to unravel. By avoiding crisis countries' defaults, bailout packages saved Franco-German banks from significant losses, and hence the governments of Germany and France from bailing out their banking systems. Marcello Minenna had described risk-sharing policies as a "twin bailout" of banks in the periphery and the core. At the time of writing, Franco-German banks' exposures to crisis countries are about €680 billion. (Minenna 2018.)

After the decisions taken by euro leaders the ECB announced that it will start to purchase crisis countries' bonds under Securities markets programme (SMP) for addressing "the severe tensions in certain market segments which are hampering the monetary policy transmission mechanism and thereby the effective conduct of monetary policy oriented towards price stability in the medium term" (ECB 2010). The decision to purchase crisis countries' bonds was controversial because purchases dampen market discipline further by lowering interest rates. Although the Deutsche Bundesbank president Axel Weber had proposed purchases inside the ECB, he criticized the decision publicly and later resigned as a public protest.

The ECB president Jean-Claude Trichet participated actively in the debate about the euro crisis resolution and further integration of the EMU. Right after the introduction of the SMP the ECB published a relatively rare list of demands calling for example reinforcing economic governance with automatic sanctions after the violations of the SGP, and increasing the capacity and responsibilities of stability mechanisms so that the ECB would not be solely responsible for purchasing crisis countries' bonds (ECB 2010b). Additionally, Trichet expressed his disagreements publicly with eurozone leaders. He opposed the IMF's participation to the Troika, and especially the private sector involvement contemplated by Germany and France. In October 2010 Merkel and France's president Nicolas Sarkozy made the famous walk in the beaches of Deauville and agreed that forthcoming bailouts would also include losses for crisis countries' investors because solely taxpayer-funded bailouts were so unpopular in Germany. Because France was breaching the budget rules, Sarkozy agreed in a condition that automatic sanctions would not follow automatically from the SGP. Because the ECB had purchased crisis countries' bonds and lent to crisis countries' banks regardless of credit ratings, the private sector involvement planned by Merkel and Sarkozy would have meant huge losses for the ECB. Additionally, Trichet feared that the private sector involvement would deepen the euro crisis if the investors would start to get rid of crisis countries' bonds. After the euro member states decided in March 2011 that the permanent European Stability Mechanism (ESM) would include private sector involvement, Trichet was so disappointed with the member countries' decisions that he terminated the SMP purchases as a protest.

Trichet's fears were fulfilled, and the private sector involvement led to a sellout of eurozone bonds. Additionally, the ECB raised interest rates two times during the summer of 2011 worsening the economic situations of Spain and Italy. The eurozone leaders' decisions to raise €750 billion were enough to give bailouts to Greece, Ireland, and Portugal, but the capacity was not enough to bail out Italy, or Spain, or especially both. Several models of hedging and expanding the capacity to at least €1000 billion were considered, but although the interest rates of Italian and Spanish 10-year bonds were climbing to a critical 6-7 percent sphere, the eurozone members failed to increase the fiscal capacity of stability mechanisms.

The responsibility to answer the pressures indulged in the ECB. Trichet and Draghi (then the governor of Banca d'Italia) sent a letter to Italian prime minister Silvio Berlusconi demanding structural reforms, liberalization of the labor markets and fiscal consolidation in return of including Italy to the SMP (Trichet and Draghi 2011). The same kind of letter was also sent to the Spanish government. Both Italy and Spain committed to economic reforms demanded by the ECB (however only after Mario Monti's technocratic government had replaced Berlusconi) and the SMP was reactivated in August 2011 (Trichet 2011a). The ECB's chief economist Jürgen Stark followed Weber and resigned as a protest.

When Draghi succeeded Trichet in October 2011, the ECB's monetary policy shifted substantially. Draghi reduced public clashes with Merkel and Sarkozy and reversed monetary stance quickly. In the first two monetary meetings lead by Draghi, the ECB reduced the key interest rates by 50 basis points and introduced exceptional three-year long term refinancing operations (LTRO) worth of €1000 billion. Although the eurozone leaders agreed on strengthening the fiscal framework via a fiscal compact, finalized Greece's second bailout package and authorized bailout mechanisms to recapitalize Italian and Spanish banks, the market turbulence did not calm.

The European sovereign debt crisis ended only after Draghi delivered his legendary promise at the Global Investment Conference in London that "within our mandate, the ECB is ready to do whatever it takes to preserve the euro" (Draghi 2012). Draghi's promise to purchase potentially unlimited amounts of government bonds transformed the ECB practically as a lender of last resort, but at the same time terminated the market discipline of the EMU.

Graph 1: The development of Italian 10 year bond 2010-2018. Texts are in Finnish referring to the development of institutional responses to the euro crisis. "Whatever it takes" calmed down the markets.

Draghi's promise caused furious objections in Germany because it was considered a policy shift away from the Bundesbank style central banking. However, Angela Merkel or German finance minister Wolfgang Schäuble did not publicly criticize the ECB. It is also noteworthy that Draghi did not warn in advance the members of the ECB governing council about the "whatever it takes" promise. The ECB had not prepared any program replacing the SMP, so the program fulfilling Draghi's program needed to create quickly during the next months. When the ECB introduced the Outright Monetary Transactions program in September 2012, the Bundesbank president Jens Weidmann was the only one voting against it. In his public critiques, he compared the OMT to Johann Wolfgang von Goethe's poem Faust, who sells his soul to the devil (Weidmann 2012).

5. Replacing the market discipline with coordinated fiscal discipline

Then finance minister of Finland Jyrki Katainen described decisions to give financial assistance to Greece and to establish temporary stability fund as "getting the upper hand on the market forces" (Katainen 2017). The logic of bailouts was to guarantee the financing of crisis countries for a couple of years ahead at lower interest rates than financial markets offered. The legality of the stability mechanisms was questioned because the no-bailout-clause prohibits fiscal transfers and joint responsibility among member states. Although the institutional response to the euro crisis was based solely on the dampening of the market discipline, it was important to argue that bailouts and crisis mechanisms were not violating the EU law or the spirit of the EMU's economic framework.

Both stability mechanisms were established outside the EU legislation as an international contract between the euro member states. The temporary European Financial Stability Facility (EFSF) was established on the basis of article 122 which states that member states can get financial assistance if "threatened with severe difficulties caused by natural disasters or exceptional occurrences beyond its control." For establishing the permanent European Stability Mechanism (ESM) the European Council used Lisbon Treaty's simplified amendment procedure for introducing a new paragraph to article 136 for allowing to euro member states to "establish a stability mechanism" … "to safeguard the stability of the euro as a whole" and that any "required financial assistance under the mechanism will be made subject to strict conditionality" (European Council 2011).

Irish politician Thomas Pringle made a number of arguments against the legality of the ESM, concerning the incompatibility between the ESM and no-bailout-clause. Referring to preparatory documents of the Maastricht Treaty, the European Court of Justice (ECJ) ruled that article 125 was not intended to prohibit all kind of financial assistance to euro member state because article 122 allowed the assistance in the event of exceptional occurrences. Instead, the ECJ argued that article 125 aims to ensure that member states remained subject to the logic of the market, prompting them to maintain fiscal discipline. Hence, it was illegal to give financial assistance if "the incentive of the recipient Member State to conduct a sound budgetary policy is diminished" (ECJ 2012). The ECJ ruled that the compliance of the ESM with market discipline and the EU legislation was ensured by the conditionality to Troika adjustment programs attached to the ESM assistance (Graig 2013 & Hinarejos 2015).

However, as already mentioned, stability mechanisms were not sufficient enough, and the ECB also needed to conduct large scale asset purchases. Although the main central banks engaged to large scale asset purchases after the outbreak of the financial crisis, bond purchases included contradictory elements regarding the EMU's economic framework. First and foremost, large scale asset purchases work through pushing down long-term interest, which diminishes the market discipline and lessens incentives for sound budgetary policies and structural reforms requested by the EMU's economic framework. Secondly, centrally held purchases include potential risk-sharing if a euro country defaults its debts or exits from the currency area. Because large scale asset purchases base on nullifying market discipline, especially German Bundesbankers, feared that the ECB interventions increase moral hazard leading to capitulation to fiscal dominance. Continuous asset purchases could mean the debt monetization prohibited by article 123, threatening the credibility and the independence of the ECB.

Taking into account the whole variety of potential legal problems, the ECB modified technical details of bond purchase programs regarding scope, duration, and eligibility of purchases in a way that the ECB does not overstep its legal constraints. The ECB countered the critiques considering monetary financing, and proportionality of monetary and fiscal policies by stating that under the SMP and the OMT purchases of certain crisis countries aims to safeguard "an appropriate monetary transmission" and the "singleness of the monetary policy" by stabilizing the yield spread among euro countries

(ECB 2010 & 2012). The argument was that pushing down the interest rates of crisis countries was not intended for bailing out or monetizing governments' debts, but instead to restore the ECB's control over the interest rates. The decreasing interest rates of crisis countries were only side effect of the ECB’s interventions. Moreover, purchases were sterilized, conducted on the secondary markets, and the OMT included only bonds with a maturity of 1-3 years. The SMP purchases included bonds of Greece, Ireland, and Portugal which had adjustment programs with Troika. The ECB demanded structural reforms, liberalization of the labor markets and fiscal consolidation in return of including Italian and Spanish bonds to the SMP, but the OMT purchases were explicitly conditioned on the acceptance of the Troika adjustment programs. By these settings, the ECB tried to ensure sound fiscal policies, and that instead of the ECB, the governments should negotiate the conditions of financial assistance. Lastly, the ECB tried to minimize political opposition in the Governing Council by holding full control over the scope, timing, and type of purchases. (Lombardi & Moschella 2016.)

The main difference between the SMP and the OMT was that the latter has no ex-ante limits allowing potentially unlimited purchases of crisis countries’ bonds. Germany’s Federal Constitutional Court (Bundesverfassungsgericht, BVerfG) interpreted that the OMT exceeded the ECB’s legal powers and threatened to prohibit the Bundesbank’s participation in the OMT. According to the BVerfG, the OMT was fiscal policy, and it circumvented the article 123 prohibiting monetary financing. The BVerfG requested the European Court of Justice to give a legal opinion of the OMT and suggested that the compliance with the EU legislation could be saved if the bond purchases would be limited. (BVerfG 2014.) The BVerfG’s reference was historical because at the same, the German court tried to nullify the ECB’s OMT program, and threatened the ECJ with a constitutional crisis. (Hinarejos 2015 & Pace 2016)

In 2015 the ECJ ruled that the technical details of the OMT are compatible with the treaties and the ECB's mandate. The ECJ recognized that the OMT might undermine sound fiscal policies, but argued that OMT’s technical settings contained possible risks. The ECJ argued that because purchases are temporary and conducted only for safeguarding the monetary transmission mechanism, the member states could not trust that the ECB would react to interest rate differences arising from member states’ budgetary situations. Additionally, compliance with Troika adjustment programs ensured fiscal consolidation and budgetary reforms. (Craig & Markakis 2016.) The ECJ required that the ECB must identify the extraordinary circumstances justifying unconventional measures and that the purchases permit the actual formation of the market price in respect of the government bonds. Additionally, the ECB needs to withdraw from preparing the ESM adjustment program conditioned for the OMT. (Villalon 2015.) Although the BverfG lost its nullification case, it accepted the ECJ's ruling. For avoiding humiliation after its failed attempts, the BVerfG interpreted that the ECJ had fulfilled German court’s requests regarding the implementation of the OMT. In the end, the ECB and Draghi were institutional winners of the Gauweiler case (Pace 2016).

It is outside the scope of this article to review the legality of crisis solutions or criticize the ECJ’s legal reasoning. In the end, the ECJ ruled that the ESM and the OMT do not breach the EU legislation and the legal reasoning based on the argument that it was necessary to give financial assistance to crisis countries for avoiding negative consequences to the rest of the euro area. Although bailouts and the ECB interventions dampened the market discipline, the ECJ argued that Troika adjustment programs requested by the ESM and the OMT assistance ensured that crisis resolution did not diminish the incentives for sound budget policies. Hence, the ECJ argued that it was OK to dampen market discipline if the fiscal discipline of sound budget policies was maintained politically.

Additionally, the euro countries decided to respond to the euro crisis by strengthening fiscal discipline further by enhancing economic coordination. The strengthening of fiscal coordination was justified by the fact that crisis countries had not respected the fiscal rules and converged enough.

The six-pack legislation adopted in November 2011 created the European Semester, which is a system of an annual cycle of economic coordination. The sixpack also requested clear numerical fiscal rules and a medium-term budgetary framework and created a procedure for the prevention and correction of macroeconomic imbalances. The two-pack legislation package adopted in May 2013 strengthened the preventive arm of the SGP, requested common budgetary timelines and created independent fiscal bodies monitoring the compliance with fiscal rules and plans. Additionally, all EU countries (except the United Kingdom and the Czech Republic) agreed in January 2012 to create a new fiscal treaty strengthening fiscal discipline further outside the EU legislation. The Treaty on Stability, Coordination, and Governance (TSCG) required all signatories to implement rules on budgetary discipline respecting the SGP and correction mechanism into national law. Practically the fiscal compact required to make legislation about balanced budgets and limiting the structural deficit to 0,5 percent of the GDP, but because rules were not obligatory to implement into the national constitution, the treaty's legal significance is limited. However, the fiscal compact continued the eurozone's willingness to act outside the EU's legal framework. (Hinarejos 2015.)

In general, the European Council starts an annual "semester" by approving economic recommendations for the euro area, and then euro countries submit their economic convergence and national reform plans required by the enhanced preventive arm of the SGP. The Commission reviews assessments, and on the basis of the Commission's opinions, the Council issues country-specific reports for the euro countries. The euro countries also need to submit their draft budgetary plans in which the Commission issues opinions and possibly requesting revisions to euro countries' plans. If necessary, excessive deficit and excessive imbalance procedures will be activated. Strengthening of economic coordination also enhanced sanctions by the decision that both excessive government deficit and excessive public debt can trigger the excessive deficit procedure. The decision-making process for imposing sanctions was changed in a way that a qualified majority in the Council would be necessary to block sanctions, instead of imposing them. Additionally, signatories of fiscal compact agreed that reverse qualified majority voting also applies for opening the excessive deficit procedure. (Hinarejos 2015.)

When the Maastricht Treaty aimed to guarantee the sound fiscal policies through market discipline, but the euro crisis forced to dampen the market discipline and strengthen politically guaranteed fiscal discipline. Although the treaties were not changed during the euro crisis, replacing market discipline with fiscal discipline is a clear policy shift regarding the EMU's economic framework. Instead of changing the fiscal rules, they were strengthened in the hope of economic convergence among the eurozone.

6. The relationship between the ECB and euro countries

During the euro crisis, the ECB has taken an openly political role. It has intervened in crisis countries' domestic politics, ensuring the acceptance of the bailout packages, as well as demanded deeper efforts from Germany and France to accomplish the monetary union.

In principle, the ECB lends to financial institutions with its short term interest rates against well-defined collateral. After the financial crisis, the ECB lowered its collateral standards and allowed national central banks to lend to their financial institutions through emergency liquidity assistance (ELA). The ECB conditioned lower collateral standards to the acceptance of Troika adjustment programs. Additionally, the ECB governing council could limit or even prohibit the ELA with a two-thirds majority. (ECB 2010a & 2017.) Because crisis countries were deeply dependent on the lower collateral standards and ELA funding during the times of severe deposit and capital flights, dependency also increased the ECB's political power over crisis countries.

The ECB has reportedly threatened to withdraw the ELA if the Irish government does not seek a bailout package and after the Cypriot parliament rejected the bailout and adjustment program related to it. (ECB 2013 & 2014.) After the left-wing Syriza won the Greek elections in January 2015 with a promise to renegotiate the Hellenic republic's bailout packages, the ECB lifted the waiver of Greek bonds lower collateral standards making the Greek banking sector reliant on the ELA. After prime minister Alexis Tsipras announced the referendum about the third bailout package, the ECB froze the ELA leading Greece to introduce capital controls. The ECB reinstated the waiver only after the Greek government and parliament had accepted the third bailout and its adjustment program. (ECB 2015a, 2015b & 2016.)

Although the ECB has acted as a "playmaker" of the Troika, demanded strengthening of sanctions for violations of the SGP, and conditioned its own emergency operations to Troika adjustment programs, the ECB has also demanded eurozone leaders to accomplish banking union and to increase eurozone's fiscal capacity for countering economic shocks alongside with the ECB.

Both Trichet and Draghi noticed the incompleteness of the monetary union and demanded more significant fiscal actions for supporting the ECB's monetary efforts. Trichet suggested establishing a European ministry of finance with responsibilities of fiscal surveillance, financial supervision and representing the union in international institutions (Trichet 2011c). Draghi has signed both four, and five president's reports demanding the completion. In addition, Draghi has urged to create in a longer-term a fiscal counterpart for the ECB and called for "quantum leap" in institutional integration of the eurozone demanding "move from a system of rules and guidelines for national economic policymaking, to a system of further sovereignty sharing within common institutions" (Draghi 2014 & Draghi 2015).

The members of the ECB executive board have underlined that the burden of macroeconomic adjustment has fallen disproportionately on monetary policy and that too tight fiscal stance might have contributed to deflationary pressures of the eurozone. The ECB board member Benoît Cœuré has introduced a term *weak dominance* which refers to a situation in which failures in fiscal or regulatory fields require central banks to do more to attain their monetary goals (Cœuré 2015). Weak dominance underlines that central bank's ability to focus on their price stability mandates is always a multidimensional problem and that the practical independence of central banks depends on the broader interplay of monetary, fiscal, and financial authorities.

According to Draghi, the ECB can "always" achieve its price stability object alone, but it can be done "faster and with fewer side effects" if macroeconomic policy-mix is more balance between fiscal and monetary authorities (Draghi 2019). Side effect seems to be possible legal problems and economic side effects related to the continuous need for bond purchases. Cœuré has warned that without broader eurozone reforms, the next downturn could require taking short-term rates much more in-depth into negative territory, purchases of riskier assets and government bonds drawing the ECB "dangerously close to monetary financing of governments" (Cœuré 2018).

However, the eurozone has not taken this kind of action, rather the opposite. As demonstrated in the previous chapter, the euro crisis resolution was based on the strengthening of fiscal discipline. All together the euro countries mobilized approximately €800 billion to stability mechanisms, and the amount has not been increased since the spring of 2012 (ESM 2019). Although the euro countries have accepted to guarantee deposits up to €100 000 and decided to create a banking union with common supervision, and crisis resolution, euro countries have delayed the establishment of a common deposit guarantee scheme to unspecified future. Additionally, the EU presidents have published several proposals urging to introduce euro bonds, Germany and Northern euro countries have so far blocked these efforts (Von Rumpuy et al. 2012 & Juncker et al. 2015). When the Council president Herman Van Rompuy proposed the euro area fiscal body, central budget, and common debt instruments at the deepest stage of the euro crisis in 2012, Merkel commented that a common debt issuance would not happen during her lifetime (Merkel 2012).

Finally, the euro countries decided in December 2018 to create a budgetary instrument in the next EU's seven-year budget (multiannual financial framework, MFF). The countries have decided that the budget instrument would be used only for improving convergence and competitiveness of the euro area, not for counter-cyclical stimulus (Eurosummit 2019). At the time of writing the precise size of the instrument has not been decided. However, French president Emmanuel Macron's original proposal of several percentage points of the eurozone's GDP seems to be scaled down to tens of billions of euros (FT 2019). For example, the Commission has proposed a €25 billion reform fund, which is approximately 0,0025 percent of the eurozone GDP. This falls shorts of the minimum proposal of the MacDougall report, which is 2,25 percent.

In contrast to euro countries' moderate fiscal actions, the ECB has continued its loose monetary policies after the sovereign debt crisis ended in 2012. After the ECB has kept interested rates at zero territory, and introduced two series of long-term funding for banks in 2014 and 2019 (targeted longer-term refinancing operations, TLTRO). In January 2015 the ECB announced its third large-scale bond purchase program (asset purchase program, APP) for accelerating inflation, and countering deflationary developments in the eurozone. The ECB started with €60 billion monthly purchases of public and private bonds, and it had purchased euro member states' government bonds with over €2 trillion when it concluded the program in December 2018. (ECB 2019a.)

Again, the BVerfG asked the ECJ to review the legality of APP's large-scale government bond purchases (public sector purchase program, PSPP). The BVerfG argued that the PSPP usurped economic competence which should belong to German Bundestag and by doing this undermined democratic control in Germany (BVerfG 2017 & Akkermans 2018). Although the PSPP was way more radical than the OMT - monthly purchases contained bonds with maturities of 2-30 years without sterilization or conditionality of Troika adjustment programs - the ECJ stated that the ECB is able to create new instruments for countering the risk of deflation and to achieving its price stability mandate. (ECB 2015c & ECJ 2018.) Like in Pringle and Gauwailer cases, the ECJ interpreted that article 123 was not about prohibiting monetary financing, but instead ensure impetus towards sound budgetary policies. The ECJ argued that the ECB’s self-imposed limits guarantee incentives towards sound budgetary policies, and hence the PSPP does not exceed the ECB’s mandate and that the PSPP does not infringe on the prohibition of monetary financing. According to advocate general Melchior Wathelet, the PSPP does not lessen the impetus to fiscal discipline because the purchases are conducted following the ECB's capital key instead of euro member states' economic situations. The ECB underlined that further by excluding the bonds of countries under adjustment programs from the PSPP. Moreover, the ECJ required that the ECB did not disrupt the formation of market prices and judged that the ECB’s self-imposed limit for national central banks not to purchase more than 33 percent of their national governments' debt guarantees the free market price formation. (Wathalet 2018.) The ECJ’s ruling has been questioned because practically the ECJ interpreted a substantial constraint of monetary financing prohibition in a way that makes compliance or non-compliance with the treaty dependent on a factual economic variable of price stability which is determined by the ECB itself (Akkermans 2018.)

The ECJ admits that it does not have the expertise to assess variables justifying unconventional measures, but it did not appoint a neutral expert or commission of experts to assess them. So practically the ECJ’s Gauweiler and Weiss rulings considering the OMT and the PSPP enhanced the ECB's instrumental independence to define exceptional economic circumstances justifying unconventional measures for maintaining its price stability target.

The institutional response to the euro crisis seems to yet another compromise between Germany and France. The approach towards fiscal integration reflects the German ideal that economic convergence needs to evolve before the deeper fiscal or economic integration. Regarding the monetary policy, the ECB has abandoned the Bundesbank style central banking and developed towards the Federal Reserve like a central bank with increasing responsibilities as well as increasing risks. It can be concluded that while the EMU has not developed its fiscal capacity much, the ECB’s ability to create new instruments “within its mandate to fulfill its price mandate” has increased joint monetary responsibilities. The compromise reflects an unbalanced policy-mix between fiscal and monetary responsibilities, as well as overreliance on the ECB’s unconventional measures.

7. The scenarios for the next crisis

This chapter contemplates more detailed scenarios for the EMU and its economic framework.

The first (and the most probable scenario) is that the current relationship between fiscal and monetary authorities continues. Instead of creating a euro zone-wide fiscal capacity, the EMU concentrates on maintaining sound fiscal policies. If the severe economic downturn occurs, fiscal stimulus would be based on the national automatic stabilizers within limits allowed by the SGP. If the SGP constrains national fiscal policies, and euro countries are not allowed to increase euro zone-wide fiscal capacity, the ECB may have to react. The ECB can push interest rates to deeper in negative territory, purchase riskier assets as well as more bonds. For allowing the continuation of bond purchases, the ECB might have to reconsider the rules regarding the PSPP. For example, raising issuer limit or dropping the capital key request would allow a couple of trillions more to purchase but at the same time new rounds of reviews in the ECJ for ensuring the legality of new instruments. Although the ECJ has increased the ECB's ability to create new instruments, increasing responsibilities could lead to questions about overstepping its mandate. Overreliance on the ECB can lead to raising demands in Germany to withdraw the German Bundesbank from monetary activism.

The second scenario would be a further reinterpretation of EMU's economic framework without changing the legislation or treaties. This would allow automatic stabilizers to work regardless of the SGP limits. Additionally, the euro member states and the ECB could make coordinated stimulus action without increasing the de facto capacity of the ESM. Instead, the European Investment Bank (EIB) could issue, for example, a 1 trillion bond which would be purchased by the ECB from the secondary markets. The money could be used to eurozone wide fiscal stimulus. The main policy shift would be to accept joint fiscal responsibility regardless of insufficient economic convergence. The ECB's institutional shift during the euro crisis makes the policy shift possible, but it would require that Germany abandons its commitment to fiscal discipline and sound fiscal policies.

The third and (the least likely) scenario is that the EMU would be finalized according to proposals by the EU presidents. That would include economic convergence, the accomplishment of the banking union, increasing the capacity of the ESM, as well as the creation of a significant eurozone budget with the capacity to stimulate in the times of economic crises. Additionally, the accomplishment of the EMU would mean the EMU's development towards a sovereign state requiring the establishment of the eurozone finance ministry with the ability to tax, make fiscal transfers, decide about health care, labor markets, etc. It would require enough political solidarity among the member states for changing the treaties.

8. Conclusions

The euro crisis seems to have strengthened the EMU's contradictory elements. EMU's economic framework has been reinterpreted by replacing the market discipline with politically coordinated fiscal discipline. Additionally, fiscal integration has been conditioned to economic convergence while the ECB has abandoned the Bundesbank orthodoxy and started to act as a lender of last resort. A lesson of the euro crisis is that de jure independence does not necessarily guarantee de facto independence - in the eurozone rather the opposite. Without strengthening the EMU's overall fiscal capacity, the eurozone risks becoming overreliant on the ECB's actions and the same time, the ECB risks becoming the prisoner of its independence. The study underlines the need to rethink the basic concepts of central bank independence as well as coordination between fiscal and monetary authorities.

Literature

Akkermans, Jitte. "On the Reasoning of the ECJ in the PSPP-Case." *Corporate Finance Lab, Legal Aspects of Corporate Finance and Insolvency*, 2018. https://corporatefinancelab.org/2018/12/19/on-the-reasoning-of-the-ecj-in-the-pspp-case/.

Arestis, Philip, Andrew Brown, and Malcolm Sawyer. *The Euro. Evolution and Prospects*. Edward Elgar Publishing, Cheltenham, 2001.

Baimbridge, Mark, and Philip B. Whyman. *Crisis in the Eurozone. Causes, Dilemmas and Solutions.* Palgrave Macmillan, New York., 2015.

Barnett, Michael, and Raymond Duvall. "Power in Global Governance." In *Power in Global Governance*. Cambridge University Press, Cambridge, 2005.

Bastasin, Carlo. *Saving Europe: Anatomy of a Dream*. Brookings Institution, Washington, DC., 2015.

Bernanke, Ben. "Deflation: Making Sure 'It' Doesn't Happen Here. Remarks by Governor Ben S. Bernanke Before the National Economists Club, Washington, D.C. November 21, 2002.," 2002. https://www.federalreserve.gov/boarddocs/speeches/2002/20021121/default.htm.

———. "Temporary Price-Level Targeting: An Alternative Framework for Monetary Policy." *Brookings Blog*, 2017. https://www.brookings.edu/blog/ben-bernanke/2017/10/12/temporary-price-level-targeting-an-alternative-framework-for-monetary-policy/.

Blanchard, Olivier. "Europe Must Fix Its Fiscal Rules." *Project Syndicate*, 2019. https://www.project-syndicate.org/commentary/eurozone-must-relax-budget-deficit-rules-by-olivier-blanchard-2019-06.

Blanchard, Olivier, Giovanni Dell'Ariccia, and Paolo Mauro. "Rethinking Macroeconomic Policy." *IMF Staff Position Note, February 12, 2010. SPN/10/3*, 2010.

Blinder, Alan. *Central Banking in Theory and Practice*. The MIT Press Cambridge, Massachusetts London., 1999.

Brunnermeier, Markus, James Harold, and Jean-Pierre Landau. *The Euro and the Battle of Ideas.* Princeton University Press, Princeton & Oxfor, 2016.

Brzeski, Carsten, and Inga Fechner. "The Eurozone's 'Japanification.'" *ING. Economic and Financial Analysis.*, 2019. https://think.ing.com/articles/eurozones-japanification/.

Buiter, Willem. "Central Banks: Powerful, Political and Unaccountable?" *Journal of the British Academy, 2, 269–303.*, 2014.

BVerfG. "Beschluss Des Zweiten Senats Vom 18. Juli 2017 - 2 BvR 859/15 -, Rn. (1-137)," 2017. https://www.bundesverfassungsgericht.de/e/rs20170718_2bvr085915.html.

———. "Order of the Second Senate of 14 January 2014 - 2 BvR 2728/13 -, Paras. (1-24)," 2014. https://www.bundesverfassungsgericht.de/entscheidungen/rs20140114_2bvr272813en.html.

Connolly, Bernard. The Rotten Heart of Europe. 2012. Faber and Faber, London.

Cœuré, Benoit. "Independence and Accountability in a Changing World. Introductory Remarks by Benoît Cœuré, Member of the Executive Board of the ECB, at the Transparency International EU Event 'Two Sides of the Same Coin? Independence and Accountability of the European Central Bank', Brussels, 28 March 2017," 2017. https://www.ecb.europa.eu/press/key/date/2017/html/sp170328_1.en.html.

Cœuré, Benoît. "Interview with the Financial Times Interview with Benoît Cœuré, Member of the Executive Board of the ECB, Conducted by Claire Jones on 12 June, and Published on 17 June 2019," 2019. https://www.ecb.europa.eu/press/inter/date/2019/html/ecb.in190617~79627ed174.en.html.

Cœuré, Benoit. "Lamfalussy Was Right - Independence and Interdependence in a Monetary Union Speech by Mr Benoît Cœuré, Member of the Executive Board of the European Central Bank, at the Lamfalussy

Lecture Conference, Organised by Magyar Nemzeti Bank (the Central Bank of Hungary), Budapest, 2 February 2015.," 2015. https://www.bis.org/review/r150202d.htm.

———. "The Euro Area's Three Lines of Defence. Speech by Benoît Cœuré, Member of the Executive Board of the ECB, at the Conference 'Deepening of EMU', Ljubljana, 2 February 2018.," 2018. https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180202.en.html.

"Consolidated Version of the Treaty on the Functioning of the European Union," n.d. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12012E%2FTXT.

Constâncio, Vítor. "Past and Future of the ECB Monetary Policy, Speech by Vítor Constâncio, Vice-President of the ECB, at the Conference on 'Central Banks in Historical Perspective: What Changed After the Financial Crisis?', Organised by the Central Bank of Malta, Valletta, 4 May 2018," 2018. https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180504.en.html.

Cooper, Ryan. "The Mask Is off at the Federal Reserve." *The Week*, 2019. https://theweek.com/articles/861392/mask-federal-reserve.

Craig, Paul. "Pringle: Legal Reasoning, Text, Purpose and Teleology." *Maastricht Journal of European and Comparative Law, 2013, Oxford Legal Studies Research Paper No. 53/2013*, 2013. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2264018.

Craig, Paul, and Menelaos Markakis. "Gauwailer and the Legality of Outright Monetary Transactions." *European Law Review 1, Oxford Legal Studies Research Paper No. 5/2016*, 2016. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2723459.

Crowe, Cristopher, and Ellen Meade. "The Evolution of Central Bank Governance around the World." *The Journal of Economic Perspectives Vol. 21, No. 4 (Fall, 2007), Pp. 69-90*, 2007.

De Grauwe, Paul. "The ECB Was Right to Intervene as Lender of Last Resort, but Structural Reforms Are Still Needed to Save the Eurozone." *LSE / European Politics and Policy*, 2012. https://blogs.lse.ac.uk/europpblog/2012/09/12/ecb-eurozone/.

Dendrinou, Viktoria, and Eleni Varvitsioti. *The Last Bluff: How Greece Came Face to Face with Financial Catastrophe & the Secret Plan for Its Euro Exit The Last Bluff: How Greece Came Face to Face with Financial Catastrophe & the Secret Plan for Its Euro Exit.* Papadopoulos Publishing, 2019.

Dietsch, Peter, Francois Claveau, and Clément Fontan. *Do Central Banks Serve the People?* Polity Press, Cambridge, 2018.

Draghi, Mario. "Central Bank Independence. First Lamfalussy Lecture by Mario Draghi, President of the ECB, at the Banque Nationale de Belgique, Brussels, 26 October 2018.," 2018. https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp181026.en.html.

———. "ECB's Draghi Calls for 'Quantum Leap' in European Integration." *Reuters 16.3.2015*, 2015. https://www.reuters.com/article/ecb-policy-draghi/draghi-calls-for-quantum-leap-in-european-integration-idINKBN0MC24K20150316.

———. "Stability and Prosperity in Monetary Union Speech by Mario Draghi, President of the European Central Bank, at the University of Helsinki, Helsinki, 27 November 2014.," 2014. https://www.ecb.europa.eu/press/key/date/2014/html/sp141127_1.en.html.

———. “Twenty Years of the ECB’s Monetary Policy. Speech by Mario Draghi, President of the ECB, ECB Forum on Central Banking, Sintra, 18 June 2019.,” 2019. https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190618~ec4cd2443b.en.html.

———. “Verbatim of the Remarks Made by Mario Draghi, Speech by Mario Draghi, President of the European Central Bank at the Global Investment Conference in London, 26 July 2012,” 2012. https://www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html.

Draghi, Mario, and Vítor Constâncio. “Introductory Statement to the Press Conference (with Q&A). Frankfurt Am Main, 26 April 2018.,” 2018. https://www.ecb.europa.eu/press/pressconf/2018/html/ecb.is180426.en.html.

ECB. “Agreement on Emergency Liquidity Assistance,” 2017. https://www.ecb.europa.eu/pub/pdf/other/Agreement_on_emergency_liquidity_assistance_20170517.en.pdf.

———. “Asset Purchase Programmes,” 2019a. https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html.

———. “ECB Announces Change in Eligibility of Debt Instruments Issued or Guaranteed by the Greek Government,” 2010a. https://www.ecb.europa.eu/press/pr/date/2010/html/pr100503.en.html.

———. “ECB Decides on Measures to Address Severe Tensions in Financial Markets,” 2010. https://www.ecb.europa.eu/press/pr/date/2010/html/pr100510.en.html.

———. “ECB Reinstates Waiver Affecting the Eligibility of Greek Bonds Used as Collateral in Eurosystem Monetary Policy Operations,” 2016. https://www.ecb.europa.eu/press/pr/date/2016/html/pr160622_1.en.html.

———. “ELA to Greek Banks Maintained at Its Current Level,” 2015b.

———. “Eligibility of Greek Bonds Used as Collateral in Eurosystem Monetary Policy Operations,” 2015a. https://www.ecb.europa.eu/press/pr/date/2015/html/pr150204.en.html.

———. “Governing Council Decision on Emergency Liquidity Assistance Requested by the Central Bank of Cyprus,” 2013. https://www.ecb.europa.eu/press/pr/date/2013/html/pr130321.en.html.

———. “Implementation Aspects of the Public Sector Purchase Programme (PSPP),” 2015c.

———. “Irish Letters,” 2014. https://www.ecb.europa.eu/press/html/irish-letters.en.html.

———. “Public Sector Purchase Programme (PSPP) - Questions & Answers,” 2019. https://www.ecb.europa.eu/mopo/implement/omt/html/pspp-qa.en.html.

———. “Reinforcing Economic Governance in the Euro Area,” 2010b. https://www.ecb.europa.eu/pub/pdf/other/reinforcingeconomicgovernanceintheeuroareaen.pdf.

———. “Technical Features of Outright Monetary Transactions,” 2012. https://www.ecb.europa.eu/press/pr/date/2012/html/pr120906_1.en.html.

———. “The Definition of Price Stability,” 2019a. https://www.ecb.europa.eu/mopo/strategy/pricestab/html/index.en.html.

ECJ. “Judgment of the Court (Grand Chamber) of 16 June 2015, Peter Gauweiler and Others v Deutscher Bundestag, Request for a Preliminary Ruling from the Bundesverfassungsgericht.,” 2015. http://curia.europa.eu/juris/liste.jsf?num=C-62/14.

———. “Judgment of the Court. In Case C‑370/12, REFERENCE for a Preliminary Ruling under Article 267 TFEU from the Supreme Court (Ireland), Made by Decision of 31 July 2012, Received at the Court on 3 August 2012, in the Proceedings. Thomas Pringle v Government of Ireland & Ireland.,” 2012. http://curia.europa.eu/juris/document/document.jsf?text=&docid=130381&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=8255424.

———. “Judgment of the Court. In Case C‑493/17, REQUEST for a Preliminary Ruling under Article 267 TFEU from the Bundesverfassungsgericht (Federal Constitutional Court, Germany), Made by Decision of 18 July 2017, Received at the Court on 17 August 2017, in the Proceedings Brought by Heinrich Weiss and Others.,” 2018. http://curia.europa.eu/juris/document/document.jsf?text=&docid=208741&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=1794993.

Eijffinger, Sylvester, and Jakob de Haan. *European Monetary and Fiscal Policy*. Oxford University Press, Oxford., 2000.

El-Erian, Mohamed. “How Western Economies Can Avoid the Japan Trap.” *Project Syndicate*, 2019. https://www.project-syndicate.org/commentary/west-japanization-low-growth-inflation-by-mohamed-a-el-erian-2019-04?barrier=accesspaylog.

“EMU and International Conflict.” *Foreign Affairs, Volume 76, Number 6, November/December 1997*, 1997. https://www.nber.org/feldstein/fa1197.html.

ESM. “Safeguarding the Euro in Times of Crisis. The inside Story of the ESM,” 2019. https://www.esm.europa.eu/sites/default/files/safeguarding-euro-times-crisis-inside-story-esm.pdf.

“EU Court Shields ECB from Disclosing Key Document in Greek Crisis.” *Reuters 12.3.2019*, n.d. https://www.reuters.com/article/us-ecb-greece-banks/eu-court-shields-ecb-from-disclosing-key-document-in-greek-crisis-idUSKBN1QT18P.

European Council. “European Council Decision of 25 March 2011. Amending Article 136 of the Treaty on the Functioning of the European Union with Regard to a Stability Mechanism for Member States Whose Currency Is the Euro (2011/199/EU).” *Official Journal of the European Union*, 2011. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:091:0001:0002:EN:PDF.

Eurosummit. “Statement, 21 June 2019,” 2019. https://www.consilium.europa.eu/media/39968/20190621-euro-summit-statement.pdf.

Fernández-Albertos, José. “The Politics of Central Bank Independence.” *Annuel Review of Political Science, 2015. 18:217-37.*, 2015.

Foster, Chase M. “The Politics of Independent Central Banks. Book Review Essay.” *Public Administration*, 2016.

Friedman, Milton. “Friedman: ‘Strong Possibility’ of Euro Zone Collapse.” *EUObserver*, 2004. https://euobserver.com/economic/16030.

———. “The Counter-Revolution in Monetary Theory.” *IEA Occasional Paper, No. 33, Institute of Economic Affairs, London.*, 1970.

———. “The Euro: Monetary Unity to Political Disunity?” *Project Syndicate*, 1997. https://economia.icaew.com/opinion/global-review-2015/the-euro-monetary-unity-to-political-disunity.

———. “The Role of Monetary Policy.” *The American Economic Review. Volume LVIII, March 1968, Number 1*, 1968. https://www.fep.up.pt/docentes/pcosme/CIF_1Ec101_2014/Freedman1968.pdf.

FT. “EU Ministers Debate How to Move on Macron’s Euro Budget Plans.” *Financial Times, 5.4.2019*, 2019. https://www.ft.com/content/7a19373e-56d8-11e9-a3db-1fe89bedc16e?fbclid=IwAR20FEbXWbtDQuDVNEs-pJXSa8eJA-W8uvaWvVruyuLddfZjWTnJTLFbiG0.

Godley, Wynne. “Maastricht and All That.” *London Review of Books, Vol. 14 No. 19, Ortober 1992*, 1992. https://www.lrb.co.uk/v14/n19/wynne-godley/maastricht-and-all-that.

Goodfriend, Marvin. “How the World Achieved Consensus on Monetary Policy.” *Working Paper No. 13580, National Bureau of Economic Research.*, 2007.

Goodhart, Charles. A.E. “One Government, One Money.” *Prespect*, 1997. https://www.prospectmagazine.co.uk/magazine/onegovernmentonemoney.

Heipertz, Martin, and Amy Verdun. *Ruling Europe: The Politics of the Stability and Growth Pact*. Cambridge University Press, Cambridge, 2010.

Hinarejos, Alicia. *The Euro Area Crisis in Constitutional Perspective*. Oxford University Press, Oxford, 2015.

Högenauer, Anna-Lena, and David Howarth. “Unconventional Monetary Policies and the European Central Bank’s Problematic Legitimacy.” *Journal of Public Law, 17, 2, Vienna: Vergal, Pp. 1-24*, 2016.

Howarth, David, and Peter Loedel. *The European Central Bank. The New European Leviathan?* Palgrave Macmillan, New York., 2005.

Ioannou, Demosthenes, Patrick Leblond, and Arne Nieminen. “European Integration and the Crisis: Practice and Theory.” *Journal of European Public Policy, Volume 22, Issue 2*, 2015.

Irwin, Neil. *The Alchemists: Three Central Bankers and a World on Fire*. Penguin Group, New York, 2014.

Issing, Otmar. *The Birth of Euro*. Cambridge University Press, New York., 2008.

Joerges, Christian. “What Is Left of the European Economic Constitution?” *European University Institute, Working Paper LAW No. 2004/13*, 2014.

Joyce, Michael, David Miles, Andrew Scott, and Dimitri Vayanos. “Quantitative Easing and Unconventional Monetary Policy - an Introduction.” *The Economic Journal, 122 (November), F271-F288*, 2012.

Juncker, Jean-Claude, Donald Tusk, Jeroen Dijsselbloem, Mario Draghi, and Martin Schulz. “Completing Europe’s Economic and Monetary Union.,” 2015. https://ec.europa.eu/commission/sites/beta-political/files/5-presidents-report_en.pdf.

Katainen, Jyrki. “Kun Kaikki Muuttui.” *Finland’s Ministry of Finance*, 2017. https://vm.fi/artikkeli/-/asset_publisher/jyrki-katainen-kun-kaikki-muuttui.

Kydland, Finn, and Edward Prescott. “Rules Rather than Discretion: The Inconsistency of Optimal Plans.” *Journal of Political Economy, 85(3), 473–491.*, 1977.

Lohmann, Susanne. “The Non-Politics of Monetary Policy.” In *The Oxford Handbook of Political Economy*, by Barry Weingast and Donald Wittman. Oxford University Press, New York, 2006.

Lukes, Steven. *Power: A Radical View*. Palgrave MacMillan, New York, 1974.

MacDougall, Donald. “Report of the Study Group on the Role of Public Finance in European Integration. Volume 1: General Report,” 1977. https://ec.europa.eu/archives/emu_history/documentation/chapter8/19770401en73macdougallrepvol1.pdf.

Majone, Giandomenico. “Monetary Union and the Politicization of Europe. Keynote Speech at the Euroacademia International Conference: ‘The European Union and the Politicization of Europe’, Vienna, 8-10 December 2011.,” 2011.

Marcussen, Martin. “Scientization of Central Banking: The Politics of A-Politicization.” In *Central Banks in the Age of the Euro. Europeanization, Convergence, & Power.*, by Kenneth Dyson and Martin Marcussen. Oxford University Press, New York, 2009.

Marsh, David. *The Euro: The Battle for the New Global Currency*. Yale University Press, New Haven & London, 2011.

McNamara, Kathleen. *The Currency of Ideas: Monetary Politics in the European Union*. Cornell University Press, Ithaca & London, 1999.

Merkel, Angela. “Eurobonds? Over My Dead Body, Merkel Tell Her MPS.” *The Daily Telegraph, 27 June 2012*, 2012.

———. “‘If Euro Fails, So Will the Idea of European Union.’” *Spiegel*, 2010. https://www.spiegel.de/international/germany/merkel-warns-of-europe-s-collapse-if-euro-fails-so-will-the-idea-of-european-union-a-694696.html.

Mersch, Yves. “Central Bank Independence Revisited Keynote Address by Yves Mersch, Member of the Executive Board of the ECB, at the ‘Symposium on Building the Financial System of the 21st Century: An Agenda for Europe and the United States’, Frankfurt Am Main, 30 March 2017.,” 2017. https://www.ecb.europa.eu/press/key/date/2017/html/sp170330.en.html.

———. “Necessity, Proportionality and Probity – Central Bank Independence in Unconventional Times Speech by Yves Mersch, Member of the Executive Board of the ECB, at The ECB and Its Watchers XX Conference, Frankfurt Am Main, 27 March 2019,” 2019. https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190327_4~4ccf5d35bc.en.html.

Miettinen, Timo. “Governing with Ideas: On the Phenomenological Roots of the Ordoliberal Tradition.” *Metodo: International Studies in Phenomenology and Philosophy, 4(1), 111-129.*, 2016.

Minenna, Marcello. “A Look Back: What Eurozone ‘Risk Sharing’ Actually Meant.” *Financial Times Alphaville*, 2018. https://ftalphaville.ft.com/2018/10/10/1539147600000/A-look-back--what-Eurozone--risk-sharing--actually-meant/.

Mitchell, William. *Eurozone Dystopia. Groupthink and Denial on a Grand Scale*. Edward Elgar Publishing, Cheltenham., 2015.

Mody, Ashoka. *EuroTragedy. A Drama in Nine Acts.* Oxford University Press, New York, 2018.

"Monetary Policy after the Crisis – a European Perspective. Keynote Speech by Professor Axel A Weber, President of the Deutsche Bundesbank, at the Shadow Open Market Committee (SOMC) Symposium, New York City, 12 October 2010.," 2010. https://www.bis.org/review/r101018a.pdf.

Münchau, Wolfgang. "Europe Must Rethink Fiscal Rules to Combat Populism." *Financial Times*, 2019. https://www.ft.com/content/6b834848-6daf-11e9-a9a5-351eeaef6d84.

Mundell, Robert. "A Theory of Optimum Currency Areas." *The American Economic Review, Vol. 51, No. 4 (Sep., 1961), Pp. 657-665*, 1961. https://www.experimentalforschung.econ.uni-muenchen.de/studium/veranstaltungsarchiv/sq2/mundell_aer1961.pdf.

Pace, Lorenzo. "The OMT Case: Institution Building in the Union and a Ufailed) Nullification Crisis in the Process of European Integration." In *The Democratic Principle and the Economic and Monetary Union.*, by L. Daniele, 2016. https://poseidon01.ssrn.com/delivery.php?ID=987090099095089086028078071109089010005037036006012036006088065066072125000011064087032117025055047016034005082068097005076068054019030026019013093015027005091087033082051116107123015066110004080098080071087003105067101074014068067029027094122013126&EXT=pdf.

Padoa-Schioppa, Tommaso. *The Euro and Its Central Bank. Getting United after the Union.* The MIT Press Cambridge, Massachusetts London, England, 2004.

Patomäki, Heikki. "EMU and the Legitimation Problems of the European Union." In *The Politics of Economic and Monetary Union*, by Petri Minkkinen and Heikki Patomäki. Kluwer Academic Publishers, Dordrecht, 1997.

Pilkington, Marc. *The Global Financial Crisis and the New Monetary Consensus*. Roudledge, London., 2013.

Pixley, Jocelyn, Sam Whimster, and Shaun Wilson. "Central Bank Independence: A Social Economic and Democratic Critique." *The Economic and Labour Relations Review 24(1) 32-50*, 2013.

Posen, Adam. "When Central Banks Buy Bonds. Independence and the Power to Say No. Barclays Capital 14th Annual Global Inflation-Linked Conference, New York 14 June 2010.," 2010. https://www.bankofengland.co.uk/-/media/boe/files/speech/2010/when-central-banks-buy-bonds-speech-by-adam-posen.

Praet, Peter. "Have Unconventional Policies Overstretched Central Bank Independence? Challenges for Accountability and Transparency in the Wake of the Crisis. Keynote Address by Peter Praet, Member of the Executive Board of the ECB, at the 'Symposium on Building the Financial System of the 21st Century: An Agenda for Europe and the United States', Frankfurt Am Main, 29 March 2017," 2017. https://www.ecb.europa.eu/press/key/date/2017/html/sp170329.en.html.

Rehn, Olli. "Challenges of Monetary Policy – Past, Present, Future. Opening Remarks at the Bank of Finland Conference on Monetary Policy and Future of European, 1 July 2019.," 2019. https://www.suomenpankki.fi/en/media-and-publications/speeches-and-interviews/2019/governor-olli-rehn-challenges-of-monetary-policy--past-present-future-1-july-2019/.

Rogoff, Kenneth. "The Optimal Degree of Commitment to an Intermediate Target." *Quarterly Journal of Economics, 100 (1985), 1169-90.*, 1985.

Schmidt, Vivien. “Reinterpreting the Rules ‘by Stealth’ in Times of Crisis: A Discursive Institutionalist Analysis of the European Central Bank and the European Commission.” *West European Politics, 39:5, 1032-1052*, 2016.

Simeon, Djankov. *Inside the Euro Crisis. An Eyewitness Account*. Peterson Institute for International Economics, Washington DC, 2014.

Singleton, John. *Central Banking in the Twentieth Century*. Cambridge University Press, New York., 2011.

Sinn, Hans-Werner. *The Euro Trap: On Bursting Bubbles, Budgets, and Beliefs.* Oxford University Press, Oxford, 2014.

Stark, Jürgen. “ECB Has Lost Its Way, Warns Former Chief Economist,” no. Handelsblatt (2014). https://www.handelsblatt.com/today/finance/stark-warning-ecb-has-lost-its-way-warns-former-chief-economist/23613350.html.

Summers, Larry. “Central Bank Independence. Remarks by Lawrence H. Summers (as Prepared to Be Read). Bank of England: ‘Independence – 20 Years on’ Conference, September 28, 2017.,” 2017. http://larrysummers.com/2017/09/28/central-bank-independence/.

———. “Why the Fed Needs a New Monetary Policy Framework.” *Brookings Blog*, 2018. https://www.brookings.edu/research/why-the-fed-needs-a-new-monetary-policy-framework/.

Trichet. “Statement by the President of the ECB,” 2011a. https://www.ecb.europa.eu/press/pr/date/2011/html/pr110807.en.html.

Trichet, Jean-Claude. “Building Europe, Building Institutions, Speech by Jean-Claude Trichet, President of the ECB on Receiving the Karlspreis 2011 in Aachen, 2 June 2011.,” 2011c. https://www.ecb.europa.eu/press/key/date/2011/html/sp110602.en.html.

———. “ECB Would Reject Defaulted Greek Bonds, Says Trichet.” *Ekathimerini*, 2011b. http://www.ekathimerini.com/134852/article/ekathimerini/business/ecb-would-reject-defaulted-greek-bonds-says-trichet.

Trichet, Jean-Claude, and Mario Draghi. “Trichet E Draghi: Un’azione Pressante per Ristabilire La Fiducia Degli Investitori, Corriere Della Sera.” *Corriere Della Sera*, 2011. https://www.corriere.it/economia/11_settembre_29/trichet_draghi_inglese_304a5f1e-ea59-11e0-ae06-4da866778017.shtml.

Tuori, Kaarlo, and Klaus Tuori. *The Eurozone Crisis. A Constitutional Analysis*. Cambridge University Press, Cambridge, 2014.

Van Rompuy, Herman, Jose Barroso, Jean-Claude Juncker, and Mario Draghi. “Four Presidents Report: Towards Genuine Economic and Monetary Union.,” 2012. https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/134069.pdf.

Varoufakis, Yanis. *Adults in the Room. My Battle with Europe’s Deep Establishment*, 2017. The Bodley Head London, London.

———. *And the Weak Suffer What They Must? Europe’s Crisis and America’s Economic Future.* Nation Books, New York, 2016.

———. “Christine Lagarde Will Have to Confront Berlin If She’s to Save the Euro.” *The Guardian*, 2019. https://www.theguardian.com/commentisfree/2019/jul/15/christine-lagarde-ecb-berlin-eurozone-yanis-varoufakis.

Verdun, Amy. “The Role of the Delors Committee in the Creation of EMU: An Epistemic Community?” *Journal of European Public Policy 6:2 June 1999: 308-28*, 1999.

Villalón, Cruz. “Advocate General’s Opinion in Case C-62/14 Peter Gauweiler and Others v Deutscher Bundestag.” *Court of Justice of the European Union, PRESS RELEASE No 2/15, Luxembourg, 14 January 2015.*, 2015. https://curia.europa.eu/jcms/upload/docs/application/pdf/2015-01/cp150002en.pdf.

Wathelet, Melchior. “Advocate General’s Opinion in Case C-493/17 Weiss and Others.” *Court of Justice of the European Union, PRESS RELEASE No 145/18, Luxembourg, 4 October 2018.*, 2018. https://curia.europa.eu/jcms/upload/docs/application/pdf/2018-10/cp180145en.pdf.

Weber, Christoph, and Benedikt Forschner. “ECB: Independence at Risk?” *Intereconomics, January 2014, Volume 49, Issue 1, Pp. 45-50*, 2014.

Weidmann, Jens. “Money Creation and Responsibility. Speech by Dr Jens Weidmann, President of the Deutsche Bundesbank, at the 18th Colloquium of the Institute for Bank-Historical Research (IBF), Frankfurt, 18 September 2012.,” 2012. https://www.bis.org/review/r120924g.pdf.

Weigel, Theo. “Proposal by Theo Waigel for a Stability Pact for Europe (November 1995),” 1995. https://www.cvce.eu/content/publication/2005/7/4/50fc7cc3-0a4d-4762-9ee5-e312d32d41f1/publishable_en.pdf?fbclid=IwAR2OgOeL6ZQfz0M5B0hzxyQ6kS4UOPoi9iySsUSbbqN4qGifw5co6-gsa6o.

Wessel, David. “Alternatives to the Fed’s 2 Percent Inflation Target,” 2018. https://www.brookings.edu/research/alternatives-to-the-feds-2-percent-inflation-target/.

Wray, Randall. “Japan Does MMT?” *New Economic Perspectives*, 2019. http://neweconomicperspectives.org/2019/06/japan-does-mmt.html.

———. *Understanding Modern Money:The Key to Full Employment and Price Stability*. Edward Elgar Publishing, Cheltenham, 1998.