

Supervisory and central bank measures during the 2007 economic crisis and a comparison with the measures adopted by supervisory authorities and central banks during the extreme economic shock of the coronavirus pandemic.

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Abstract

This dissertation was written as a part of the LLM in Transnational and European Commercial Law, Banking Law, Arbitration/Mediation at the International Hellenic University. The scope of this research is the role of the European Central Bank in combating the challenges of the biggest economic crisis of the recent years and how important the policies of the ECB are to everyday people and financial stability.

The way the supervisory authorities and the central bank maintain a balance in the euro zone and help to keep prices stable is of upmost importance. The European central bank tries hard to maintain the value of the euro as a currency that affects every European's everyday live and economic power. The role of the European Central Bank is also to ensure that the banking sector is healthy and our savings are safe from systemic risks both from within the eurozone and from outside parameters. The global financial crisis back in 2007 has shown how problems in the banking sector of one country can easily spread to another country and the whole economic system of Europe. At the same time, the COVID-19 pandemic has affected severely world's economy. In this light, this dissertation refers to the way that the ECB approached these economic crises, the measures that it has taken and the legality and effectiveness of its actions as well. Will the banks prove once again that they are the power cell of the modern economy?

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Introduction

The recent years the world has faced a lot of challenges that have triggered the economies of states and supranational organisations such as the European Union (EU). Almost ten years ago the world was in front of a great financial crisis that triggered world's most powerful economies. Today, we are in front of a health emergency, namely the COVID-19 pandemic, that has severely affected the economy too.

Living in the world of globalisation, national economies are not the only competent to deal with economic crisis that may happen in a territory of a state. The creation of the EU and Eurozone has given a lot of space to supranational organisations such as the European Central Bank to take action in order to confront the negative consequences of severe economic crisis that may happen in the world. Their function guarantees that not only in times of normalcy but also in times of emergencies there will be accurate measures which will prevent the world from a massive economic destruction.

In the current research it is thoroughly analysed how supervisory authorities and the ECB maintain a balance in the euro zone and achieve financial stability despite the circumstances. In particular, the scope of this research is to examine how the ECB tries hard to maintain the value of the euro as a currency that affects every European's everyday life and economic power as well as to ensure that the banking sector is health and that the economy is safe from systemic risks coming from within the Eurozone or not.

The global financial crisis back in 2007 has shown how problems in the banking sector of one country can easily spread to another country and the whole economic system of Europe in general. This snowballing effect was a major problem since different countries applied different standards and methods to counter the crisis in regard to their baking sector. To ensure that that the same rules apply to all banks in the future and to permanently monitor their European countries decided to create a supranational supervisory body. This is the single supervisory mechanism in Frankfurt Germany lead by the ECB working closely together with the national supervisors of countries that use the euro as their currency. The supervisory authorities along with the ECB aim to make the euro area more financially stable and help our economy to recover when crisis arrive.

As such, in this research we are going to navigate through different measures that the ECB has taken in order to confront the major economic crisis of 2007 as well as the economic crisis derived from the COVID-19 pandemic. We are going to not only present the measures applied by the ECB, but also to examine their effectiveness in confronting the major economic crisis. We are going also to make an attempt to compare the measures taken to confront the crisis of 2007 with the current ones of 2019. In this way we will be able to answer to questions about the role of the ECB and the supervisory authorities during a crisis and after that crisis, the way that the supervisory authorities intervene and their effectiveness as well as the importance of the measures taken to achieve economic stability.

In order for our research to run smoothly we are going to divide it into two parts. In the first part, we are going to analyze the economic crisis of 2007 and its effects, the formation and composition of the ECB as well as the way that the ECB reacted to the crisis and the measures that it has adopted. In the second part, we are going to research the economic impacts of the COVID-19 pandemic as well as the way that the ECB reacted to them as well. We are going to discuss also the legality of the measures and the freedom and discretion of the ECB to take measures in order to tackle economic crisis.

With respect to the methodology part we are going to use a classical doctrinal analysis, using legal texts and legal scholar's opinions as well as announcements by the ECB itself.

FIRST PART

1.1 The Economic Crisis of 2007

The 2007 economic crisis shook the planet to the core and changed the way the whole world views economic resections. Before moving to our basic analysis about the measures that the ECB has taken to confront the crisis, it is necessary to take a look at the facts the causes and the consequences of the economic crisis and the way that the international community reacted to it in order to avoid total systemic failure.

1.1.1 The Facts of the Economic Crisis of 2007

In this section, we are going to describe in depth the facts and events of the Great Economic Crisis that shocked the world in 2007. In this way, we will be able to understand how the world ended to a global economic shock that affected various sectors of everyday life not only in the US where the crisis started but also in different regions of the world including the EU.

First of all, in order to explain what happened, we must describe what a mortgage is.² A buyer who is considering buying a residence will often borrow a considerable amount of money from a bank. In return, the bank gets a piece of paper, called a mortgage. Every month, the now owner of the house has to pay back a portion of the principle, plus interest, to whomever holds the piece of paper. In case they stop paying, that is called a default. The mortgage is in default and the bank that

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¹ David M. Kotz, 'The Financial and Economic Crisis of 2008: A systemic Crisis of Neoliberal Capitalism' (4 May 2009) Review of Radical Political Economies 1.

² Reinhart, Carmen M., and Kenneth S. Rogoff. 2008. "Is the 2007 US Sub-prime Financial Crisis So Different? An International Historical Comparison." *American Economic Review*, 98 (2): 339-44.

holds that piece of paper gets the house.³ But things are not always that simple; someone else, other than the bank, can hold that piece of paper. That is because the bank, the original lender, could sell that mortgage to some third party. In the past, it was hard to get a mortgage if you had bad credit or did not have a steady job. This is because the banks did not want to take the risk of you failing to repay the amount of money they have given you but that traditional way of coping with mortgages began to change in the beginning of the 21st century.⁴

In the early 2000s, investors in the U.S. and around the world looking for a low-risk high return investment started investing at the U.S. housing market.⁵ The interest rates of the home owners paid of mortgages were high and the investors were drawn by this new exciting way of making profit rather than invest in other products which had very low interest.⁶ They did this through mortgage backed securities. A mortgage-backed security,⁷ is when huge financial institutions securitize mortgages in bundles. The process then continues by selling these bundles to investors creating free space for them to get profit from high interest

³ Julia Kagan, 'What is a mortgage' (investopedia.com, 8 September 2021) < https://www.investopedia.com/terms/m/mortgage.asp > accessed 25 December 2021

⁴ Ibid.

⁵ Federal Reserve History, 'The Great Recession and its Aftermath' (federalreservehistory.org, 15 April 2011) < https://www.federalreservehistory.org/essays/great-recession-and-its-aftermath > accessed on 15 November 2021

⁶ Brian Duignan, 'Great Recession, economics 2007-2009' (britannica.com 15 November 2008) < https://www.britannica.com/topic/great-recession > accessed on 15 November 2021

⁷Ospina J and Uhlig H, 'Mortgage-Backed Securities and the Financial Crisis of 2008: a Post Mortem' (nber.org, 2018) https://www.nber.org/system/files/working_papers/w24509/w24509.pdf > accessed on 15 November 2021

rates. In 2000s investors in the U.S. gobbled these mortgage-backed securities up. Again, they paid a higher rate of return than investors could get in other places and they looked like really safe bets. Home prices were going up and up. Therefore, lenders thought, in the worst case scenario, the borrower defaults on the mortgage, they could just sell the house for more money.

At the same time, credit ratings agencies were declaring to investors that these mortgage backed-securities were safe investments, providing them with AAA Ratings. Investors were desperate to buy more and more and more of these securities. This created free space for banks to help them create more securities; necessary though was the creation of more mortgages. With this new reality, banking institutions loosened their standards and made loans accessible to more people with low income and poor credit (called the sub-prime mortgages). Eventually, some institutions started using predatory lending practices to generate mortgages. That means that banks gave out loans easily with very low or no standards at all, leading borrowers with low income to obtain huge amounts of money to buy a house. 9

The main problem with these new sub-prime lending practices is that they were brand new, meaning that credit agencies could still point to

⁸ Federal Reserve History. "Subprime Mortgage Crisis' (federalreservehistory.org , 2007) https://www.federalreservehistory.org/essays/subprime-mortgage-crisis > accessed on 12 November 2021

⁹ See Federal Reserve History, 'The Great Recession and its Aftermath' (federalreservehistory.org, 2015) < https://www.federalreservehistory.org/essays/great-recession-and-its-aftermath > accessed on 15 November 2021

historical data indicating that mortgage debt was a safe bet. But in most cases, it wasn't so simple. These investments were becoming more and more perilous all the time. Traders also started selling an even riskier product, called collateralized debt obligations, or CDOs. "A collateralized debt obligation (CDO) is a complex structured finance product that is backed by a pool of loans and other assets and sold to institutional investors. A CDO is a particular type of derivative because, as its name implies, its value is derived from another underlying asset. These assets become the collateral if the loan defaults". 10 Again, most of these investments were given high credit ratings from the agencies, even though many of them were made up of these very risky loans.

The new relaxed lending requirements and low interest rates drove housing prices higher, which only made the mortgage backed securities and CDOs seem like an even better investment. In case the borrowers defaulted, the bank would still have this super valuable house, right? Unfortunately, the answer was no as the this whole operation was a bubble,¹¹ and bubbles tend to burst into pieces but this time the bubble was so enormous that it burst the whole system.¹²

Furthermore, borrowers started defaulting, which naturally would not be a problem since there are now more houses on the market for sale.

Collateralized Debt Obligation (CDO) Definition (investopedia.com , 2009) < https://www.investopedia.com/terms/c/cdo.asp > accessed on 3 December 2021

What Is a Housing Bubble? Definition (investopedia.com, 2009) < https://www.investopedia.com/terms/h/housing_bubble.asp > accessed on 15 November 2021

¹² Ibid Brian Duignan (n 6).

But the buyers were not there. Therefore, supply was high, demand was low and the home prices started going down, and they went so far down that people had mortgages which did not reflect their house price at all. Suddenly, millions of American homeowners found themselves owing more on their mortgages than their homes were worth. 13 This resulted to people stop paying their mortgages and this in return led to more defaults, pushing prices down even further. As this was happening, the big financial institutions stopped buying sub-prime mortgages and subprime banks were getting stuck with bad loans with no one to buy them. By 2007, some big banks had declared bankruptcy. The crisis was then spread to big investors, who had poured money into these mortgages backed securities and CDOs who lost money on their investments. This led to a snowball effect which led to an almost systemic failure of the banking system in the U.S, then spread to Europe and the rest of the world since investors like in the 1920s were all around the globe and the financial crisis of 2007 begun without anyone realizing how big it would get and what dire consequences it would have on the global economy.¹⁴

After all these considerations, the economic crisis of 2007, also called subprime mortgage crisis originated in the US as a result of the collapse of the US housing market, threatened to destroy the international financial system, caused the failure of several major investment banks

¹³ See Federal Reserve History, 'The Great Recession and its Aftermath' (federalreservehistory.org, 2015) < https://www.federalreservehistory.org/essays/great-recession-and-its-aftermath > accessed on 15 November 2021

¹⁴ Stuart I. Greenbaum, Anjan V. Thakor, Arnoud W.A. Boot, 'The 2007-2009 Financial Crisis and Other Financial Crisis' in *Contemporary Financial Intermediation* 4th edn (2019) Academic Press, 331-352.

and is accepted to be as the worst economic downturn since the Great Depression of 1929-1939.¹⁵

1.2 ECB Structure and its Role in the EU

In all this economic mayhem of banks going bankrupt and people losing their jobs overnight, Europe had an ace up its sleeve, the European Central Bank. Before we explain how the ECB dealt with the crisis 2008, it is adequate to refer to some elements of the ECB's structure and its role in the EU. In this way we are going to better understand the importance of the ECB in dealing with economic crisis such as the one of 2007 and the one that came after the Coronavirus disease.

1.2.1 The Creation of the ECB

Before the European Economic and Monetary Union (EMU) was implemented,¹⁷ European countries used their own national currencies, for example Italy used the Italian lira, Germany used the mark and France used the Franc. The decision to set the EMU was taken by the European Council in December 1991 and was later enshrined in the Treaty on European Union (The Maastricht Treaty).¹⁸ The European Economic and Monetary Union (EMU) is the joint venture of EU

¹⁶ European Central Bank (ecb.europa.eu, 2007) < https://www.ecb.europa.eu/home/html/index.en.html > accessed on 25 November 2021

¹⁵ ibid (n 4).

¹⁷European Comission, 'What is the Economic and Monetary Union' (.ecb.europa.eu, 2015) < https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/economic-and-monetary-union/what-economic-and-monetary-union-emu_en> accessed on 15 November 2021

¹⁸ Ibid.

countries at introducing a common currency, the euro, with a single central bank, the ECB and a single monetary policy for all participating Member states.¹⁹ In 2021, 19 EU countries are parts of the EMU, forming namely the Eurozone making the ECB responsible for the monetary policy of 341 million European citizens with a significant economic power which amounts to 11.6 percent of the global GDP in comparison to the purchasing power of the US and China which is 15.3 and 18.2 respectively.²⁰

In summer of 1988 the European Council was prepared for the realization of the EMU.²¹ A committee was created, lead by Jacques Delors, a French politician and then President of the European Commission, to study and propose the stages leading to the EMU's realization. The governors of the then European Community national central banks were part of the Committee which issued a report, called the Delors Report, ²² that proposed that economic and monetary union should be achieved in three evolutionary steps.

Therefore, the European Council decided, in June 1989, that the first stage will begin on 1st of July 1990. All restrictions on the movement of capital between Member States were abolished. This first stage offered the possibility for complete freedom for capital transactions, increased

¹⁹ Moutot P and Vitale G 'Monetary Policy Strategy in a Global Environment' (2009) 106 ECB Occasional Paper ²⁰ Ibid.

Economic and Monetary union (EMU) (.ecb.europa.eu, 2012) https://www.ecb.europa.eu/ecb/history/emu/html/index.en.html > accessed on 15 November 2021

Bean Charles R 'Economic and Monetary Union in Europe' 6 (4) (1992) Journal of Economic Perspectives 31-52.

cooperation between central banks of each state of the EMU, free use of the euro as a currency and an improvement of economic convergence. Some legal preparations were concluded before the application of the second and third step. The Treaty establishing the European Economic Community, the Treaty of Rome,²³ had to be revised to achieve the required institutional structure. This resulted in the Treaty of the European Union which was agreed in December 1991 and signed in the Netherland's city of Maastricht on 7 of February 1992.²⁴ The Protocol on the Statute of the European Monetary Institute followed and came into force on November 1st 1993.²⁵

The creation of the European Monetary Institute (EMI) on January 1st 1994 was the starting point of the second stage of EMU.²⁶ The EMI held no monetary policy responsibility, which remained in the hands of national authorities. The main objectives of the EMI were to strengthen central bank cooperation and monetary policy coordination and to make the required preparations for the set up of the European System of Central Banks. This process leads to the independence of national banks, increased coordination central of monetary policies, strengthened economic convergence and paved the way for the third step of the EMU, which began on January 1st of 1999. More specifically,

²³ European Union, Treaty Establishing the European Community (Consolidated Version), Rome Treaty (25 March 1957)

²⁴ European Union, Treaty on European Union (Consolidated Version) Treaty of Maastricht (7 February 1992)

²⁵ Protocol (n 19) on the Statute of the EMI (Maastricht, 7 February 1992)

²⁶ See Economic and Monetary union (EMU)

it comprised of fixing the exchange rates of the currencies of the member states who at that point were participating in the Monetary Union and conducting a single monetary policy under the direct responsibility of the ECB.²⁷

As a result, the creation of a central bank responsible for the creation of a single monetary policy in the EU means that it would also had a crucial role in confronting economic crisis and shocks. Before moving to the way that the ECB confronted the economic crisis of 2007, it is necessary to refer to its organs and function in the context of the EU.

1.2.2 The function of the ECB

When the euro area became a reality, the responsibility for monetary policy was transferred from the national central banks of 11 EU Member States at the time to the ECB in January 1999. Greece was the next Member state to join in 2001, Slovenia in 2007, Cyprus and Malta in 2008, Slovakia in 2009, Estonia in 2011, Latvia in 2014 and Lithuania in 2015.²⁸ The creation of the euro area and of a new supranational institution, the ECB, was a milestone in the long and complex process of European integration. To join the euro area, the 19 countries had to fulfill the convergence criteria. The criteria set out the economic and

²⁷ Greece and Slovenia entered the third stage of EMU on January 2001 and January 2007 respectively followed by Cyprus, Malta and Slovakia on January 1st 2015. When a country joins the euro area, its national central bank automatically becomes part of the Eurosystem.

European Central Bank, History (.ecb.europa.eu , 2005) https://www.ecb.europa.eu/ecb/history/html/index.en.html > accessed on 13 October 2021

legal preconditions for countries to participate successfully in EMU.²⁹ The European System of Central Banks (ESCB) comprises the ECB and the national central banks of all EU Member States whether they have adopted the euro or not. The Eurosystem comprises the ECB and the national central banks of those countries that have adopted the euro as their official currency. The Eurosystem and the ESCB will co-exist as long as there are EU Member States outside the euro area. The euro area consists of the EU countries that have adopted the euro. Since 1 January 1999 the European Central Bank (ECB) has been responsible for conducting monetary policy for the euro area - the world's largest economy after the United States.³⁰

1.2.3 The Structure of the ECB

At this point, it is crucial to refer to the structure of the ECB and its major bodies. The ECB is compiled of four major bodies. First of all, the Governing Council (GC), 2 consists of six members of the Executive Board plus the governors of the national central banks of the 19 euro area countries. Its main responsibilities are basically to adopt the guidelines and take the decisions necessary to ensure the performance of the tasks

²⁹ European Central Bank, 'The implementation of monetary policy in the euro area' (2011) European Central Bank

³⁰ Eurosystem (nbb.be, 2010)

< <u>https://www.nbb.be/en/about-national-bank/eurosystem</u> > accessed on 15 October 2021

³¹ Moutot P and Vitale G 'Monetary Policy Strategy in a Global Environment' (2009) 106 ECB Occasional Paper.

³² The European Central Bank (ECB) (europarl.europa.eu, 2012)

 $< \underline{https://www.europarl.europa.eu/factsheets/en/sheet/13/the-european-central-bank-ecb-} > accessed \ on \ 15 \ November \ 2021$

entrusted to the ECB and the Eurosystem, to formulate monetary policy for the euro area, taking decisions relating to monetary objectives and key interest rates etc. Moreover, in the context of the ECB's new responsibilities related to banking supervision, the GC has the role to adopt decisions relating to the general framework under which supervisory decisions are taken, and to adopt the complete draft decisions proposed by the Supervisory Board under the non-objection procedure.

The Executive Board is responsible to prepare GC's meetings, to implement monetary policy according to the guidelines set by the GC, providing national banks with the necessary supervision, to manage the day-to-day business of the ECB with the support of the Chief Services Officer and exercise certain powers delegated to it by the GC. It consists of the President, the Vice – President and four other members appointed by the European Council, acting by a qualified majority.

The General Council, which comprises of the President of the ECB, the Vice – President of the ECB, the governors of the national central banks of the 27 EU Member State is responsible for ECB's advisory function, the collection of statistical information, the preparation of the ECB's annual report and generally the conditions of employment of the members of the ECB.

Last but not least, The Supervisory Board which is consisted by a Chairperson, the Vice – Chairperson, four ECB representatives and representatives of national supervisors meets every three weeks to discuss, plan and carry out the ECB's supervisory tasks and proposes

decisions to the Governing Council under the non – objection procedure.³³

1.2.4 The role of the ECB

Most European countries have their own central bank which issues currency, defines monetary policy and ensures the well being of the national banking system. As we have already noted, in Eurozone, things are a bit different as these roles have been granted to the ECB which coordinates with each national central bank to achieve financial stability.³⁴ The ECB operates independently from all European governments and its main role is to ensure the stability of the EU banking system and economy. Its primary objective is to maintain price stability³⁵ which translates in practice as an increase in prices close to, but under 2%. To achieve this, the ECB adjusts the benchmark interest rate. The benchmark interest rate is the rate at which commercial banks can borrow from the central bank, doing so lowering the interest rate and stimulate greater consumptions which, in return, initiates a trend towards higher prices, raising the interest rate slows down consumption and prices.

³³ Factsheets on the European Union (2021) The European Central Bank, (europarl.europa.eu, 2021) https://www.europarl.europa.eu/ftu/pdf/en/FTU 1.3.11.pdf > accessed on 23 September 2021

³⁴ James McBride, Andrew Chatzky and Christopher Alessi, 'The Role of the European Central Bank' (cfr.org, 3 October 2019) < https://www.cfr.org/backgrounder/role-european-central-bank > accessed on 15 November 2021

The definition of price stability (ecb.europa.eu, 2012) < https://www.ecb.europa.eu/mopo/strategy/pricestab/html/index.en.html > accessed on 15 November 2021

In exceptional cases, the ECB can change the currency in circulation. Doing so it prevents inflation and keeping a balance between inflation and economic growth reduction. It also, defines and implements monetary policy in the Eurozone, conducts foreign exchange operations, holds and manages the official foreign exchange reserves of each country, issues bank notes in the Eurozone, collects and centralizes statistics from national authorities and economic agents and audits credit institutions in member States.³⁶

The ECB has also an important role with respect to the supervision of national central banks in order for them to carry out policies to maintain economic stability.³⁷ The global financial crisis showed us how a problem in the banking sector of one country could spread to other countries with disastrous effects on the financial stability of both countries. The EU was affected by these problems too, as countries applied different regulations with respect to their banking sectors. To ensure that the same rules apply to every country and to monitor every banking system in Europe, European countries created a supranational supervisory body; the Single Supervisory Mechanism (SSM) led by the European Central

³⁶ European Central Bank, Monetary Policy (ecb.europa.eu, 2021) < https://www.ecb.europa.eu/mopo/html/index.en.html > accessed on 3 November 2021

³⁷ European Central Bank, Supervisory Policy Documents, (bankingsupervision.europa.eu, 2020) < https://www.bankingsupervision.europa.eu/legalframework/supervisorypolicy/html/index.en.html > accessed on 4 October 2021

Bank (ECB).³⁸ The SSM is a key element of the banking union and aims to make the euro area financially stable. ECB directly supervises on a day-to-day basis the largest banks of each country while the national supervisors continue to monitor the rest of the banks.

The main task of the SSM is to monitor and check whether banks comply³⁹ with the EU banking rules in order to tackle potential problems early on, before the situation has a snowball effect on the whole banking system. The SSM has the important role of monitoring the way of which banks lend, borrow and invest their assets and assesses whether they are fit to operate.⁴⁰

Furthermore, the SSM established safety nets as a requirement for their operation. These safety nets are in fact amounts of money to be held in reserve in case of economic problems. This ensures that banks would have sufficient assets in case of emergencies and gives a sense of trust to the everyday people and the investors and trust is everything in the world ravaged by the greatest economic crisis of the 21st century. Last but not least, the SSM grants or withdraws bank licenses and in some cases even sanctions banks if they breach the European banking regulations. SSM's role is important as it comes as a lesson from the

³⁸ European Central Bank, Single Supervisory Mechanism (bankingsupervision.europa.eu, 2013) < https://www.bankingsupervision.europa.eu/about/thessm/html/index.en.html > accessed on 15 November 2021

³⁹ Kern Alexander "The European Central Bank and Banking Supervision: The Regulatory Limits of the Single Supervisory Mechanism" (2013) ECFR (3) 2016 467-494

⁴⁰ Ibid.

economic crisis of 2007 and it is built on mechanisms that try to make banks more resistant to economic shocks like the coronavirus pandemic and prevent another systemic crisis of the banking system in Europe.

1.3 The ECB's Response to the Financial Crisis of 2007

Having in depth analysed the creation, role and functions of the ECB and its mechanisms, we can now turn our interest to the response of the ECB to the financial crisis of 2007.⁴¹ In this section, we are going to navigate into the measures that the ECB adopted in order to confront the crisis of 2007 and the reason why it has chosen them as the suitable arsenal to confront the crisis. During the analysis, we are going to critically assess whether the measures taken were suitable and effective to confront such an economic crisis that affected the whole world.

1.3.1 The Measures that the ECB adopted to confront the Crisis

As we noted earlier, central banks and governments have responded decisively to the challenges posed by the global financial crisis of 2007.⁴² The aim was to maintain liquidity in markets, reduce systematic risks and restore stability in financial markets. In the middle of 2007, when the first signs of the financial market tensions emerged, the ECB acted quickly to frontload liquidity provision to financial institutions in an attempt to offset disruptions in the interbank market.⁴³

⁴¹ Trichet, J.-C. 'The Financial Crisis and our Response so Far' (27 April 2009) Keynote; European Central Bank, 'The ECB's Monetary Policy Stance during the Financial Crisis' (January 2010) Monthly Bulletin 63–71.

⁴² Trichet, J.-C. 'The Financial Crisis and our Response so Far' (27 April 2009) Keynote

⁴³ Trichet J-C, 'State of the Union: The Financial Crisis and the ECB's Response between 2007 and 2009: STATE OF THE UNION: THE FINANCIAL CRISIS AND THE ECB'S RESPONSE 2007-09' (2010) 48 JCMS: Journal of Common Market Studies 7

In order for us to discuss the response of the ECB to the financial crisis of 2007, it is wise to distinguish between four different phases; a) the period of financial turmoil, b) the intensification of the financial crisis, c) the period of temporary improvements in financial market conditions and d) the sovereign debt crisis.⁴⁴

1.3.1.1 The period of financial turmoil

The severe economic crisis emerged in interbank markets worldwide including in the euro area. Risk premia soared on interbank loans with various maturities and market activity presented a rapid decline. Among the market participants a lack of confidence has been observed with respect to the financial health and liquidity of counterparties. These tensions threatened to impair the orderly functioning of the euro money market and even lead to a gridlock of the payment system. Had the situation been left unaddressed it would have caused a systemic liquidity threat to the financial system as a whole.⁴⁵ In fact, the situation brought to the fore the underlying imbalances and severe weaknesses of the financial system that had been building up for some time. The reaction of the ECB was immediate as it allowed euro area banks to draw the full amount of liquidity they needed, on an overnight basis against collateral at the prevailing main refinancing rate.⁴⁶ In total, banks drew 95 euro billion of liquidity, giving an indication of the severity of the shock. The ECB responded immediately, conducting supplementary refinancing

⁴⁴ European Central Bank, 'The ECB's Response to the Financial Crisis' (October 2010) Monthly Bulletin 16.

⁴⁵ Ibid.

⁴⁶ Moutot P and Vitale G 'Monetary Policy Strategy in a Global Environment' (2009) 106 ECB Occasional Paper Financial Turmoil: August 2007 to February 2009' (2009) 2-3 *Forum Financier* 96–104

operations with maturities of three and six months.⁴⁷ This encouraged "market players" and especially the banks to continue providing credits to the economy. The ECB also adapted the intra-maintenance period pattern of the supply of liquidity to allow banks to "front load" reserves in the first half of the maintenance period and then reverse this in the second half. However, we should note that all the additional measures to provide liquidity that the ECB undertook during this period of the financial turmoil were facilitated by the Eurosystem's broad and flexible operational framework, which includes a long list of collateral and counterparties eligible for Eurosystem refinancing operations.⁴⁸ This meant that all measures taken could be implemented without changes to key interest rates. However, in order to prevent second-round effects from materialising and to counteract the increase in upside risks the ECB decided in 2008 to raise its key interest rate by 25 basis points to 4.25%. This followed the main aim of the ECB, to maintain price stability.⁴⁹

Furthermore, the ECB started to provide US dollar liquidity against eurodenominated collateral, on the basis of a swap agreement with the US Federal Reserve System. The mechanism worked like this; the ECB borrowed US dollars from the Federal Reserve and passed them on to the banking sector at conditions agreed with the Federal Reserve also

⁴⁷ Gerdesmeier, D., Roffia, B. and Reimers, H.-E. (2009) 'Asset Price Misalignments European Central Bank, 'The ECB's Monetary Policy Stance during the Financial Crisis' (January 2010) Monthly Bulletin 63–71

⁴⁸ Alessi L and Detken C "Real-Time" Early Warning Indicators for Costly European Central Bank, 'The Great Financial Crisis – Lessons for Financial Stability and Monetary Policy – An ECB Colloquium Held in Honour of Lucas Papademos' (20-21 May 2010)

⁴⁹ European Central Bank, 'Recent Developments in the Retail Bank Interest Rate Pass-Through in the Euro Area' (August 2009) Monthly Bulletin 93–105.

providing a US dollar liquidity shortage in Europe, resulting from this transatlantic interbank market.⁵⁰

It is important to mention that all measures were taken within the existing operational framework of the Eurosystem. The framework was flexible and robust to align short-term money market rates with the ECB's main refinancing rate. At the same time, the monetary policy operations kept the short-term money market interest rates in line with the level determined by monetary policy decisions.⁵¹

1.3.1.2 Intensification of the financial crisis

The collapse of the major US financial institution, Lehman Brothers, created a large-scale crisis of confidence with respect to the financial markets of advanced economies. Among others, the information asymmetries and counterparty risks became overwhelming. These developments in the global economy that created a virtual breakdown of the money market, triggered the ECB which reacted swiftly to these developments by lowering its key interest rates and adopting a series of non standard measures, too. ⁵² The interest rate was reduced by 50 basis points on 8 October of 2008, in a concerted and historic move with other major central banks. ⁵³ In the following months interest rates were cut further; with the result that overall the ECB lowered the interest rate on its main refinancing operations between October 2008 and May 2009 by

⁵⁰ Mercier P, 'The Liquidity Management of the Eurosystem during the Economic Crisis and the Role of Money and Credit'. ECB Working Paper No. 1068

⁵¹ Mercier P, 'The Liquidity Management of the Eurosystem during the Financial Turmoil: August 2007 to February 2009' (2009) 2-3 *Forum Financier* 96–104.

⁵² Trichet J.-C., 'The ECB's Enhanced Credit Support' (13 July 2009) Keynote address at the University of Munich

⁵³ The move of the Banks allover the world has been characterized as exceptional and historic in nature. The Bank of Canada, the Bank of England, the Federal Reserve System Sveriges Riksbank and the Swiss National Bank announced reductions in policy interest rates on 8 October 2008.

325 basis points to 1%. In order for the Governing Council to ensure that the monetary policy stance was reflected in actual money and credit market conditions and to preserve credit flows to the euro area economy above and beyond what could be achieved by reducing interest rates, it adopted a series of non standard measures which were subsequently referred to as "enhanced credit support". 54 In fact, there was a loosening of the principle of separation between the formulation and implementation of monetary policy. As such, the first measure adopted was a "fixed rate full allotment" tender procedure in all refinancing operations with the aim to ensure unlimited central bank liquidity to eligible euro area financial institutions. To put it in simple terms, banks were allotted the full amount of liquidity that they sought at the prevailing interest rate. The aim was to maintain and enhance the availability of credit to household and companies in accessible rates. Secondly, the list of assets accepted for use as collateral has been extended until the end of 2010, providing banks with the opportunity to refinance a larger share of their balance sheet with the Eurosystem.⁵⁵

Thirdly, the ECB decided to implement additional longer term refinancing operations (LTROs) with a maturity of six months, and latter it decided to extend it to a maturity of a year. In this way the liquidity needed was achieved and banks had the possibility to attenuate a mismatch between the investment and funding side of their balance

⁵⁴ Trichet J-C, 'State of the Union: The Financial Crisis and the ECB's Response between 2007 and 2009: STATE OF THE UNION: THE FINANCIAL CRISIS AND THE ECB'S RESPONSE 2007-09' (2010) 48 JCMS: Journal of Common Market Studies 7

⁵⁵ Cheun, S., von Köppen-Mertes, I. andWeller, B. (2009) 'The Collateral Frameworks of the Eurosystem, the Federal Reserve System and the Bank of England and the Financial Market Turmoil'. ECB Occasional Paper No. 107.

sheet.⁵⁶ Fourthly, it is important to mention that the Eurosystem provided also liquidity in foreign currencies, most notably in US dollars that have faced the most significant shortfall.⁵⁷

Last but not least, the ECB, in May 2009, initiated a program to purchase euro-denominated covered bonds issued in the euro area. Such covered bonds are long term debt securities that are issued by banks to refinance loans to the public and private sectors. This covered bond market represented a major source for funding for banks in the euro area. As such, the ECB announced a 60euro billion programme, representing around 2.5 percent of the total outstanding amount of covered bond at the end of 2008, in order to purchase euro dominated covered bonds issued in the euro area until June 2010, with the aim to support the market both in liquidity, issuance and spreads.⁵⁸

1.3.1.3 Temporary Improvements in Financial Market Conditions

Without the ECB's non-standard measures in response to the crisis, it was very probable that a breakdown in money markets would have occurred. Refinancing banks would not have been possible, risking freezing the bank lending channel. This would have as a result not only rendering the monetary policy of the ECB ineffective, but also turn the financial crisis into a "profound and long-lasting economic depression".

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⁵⁶ The outstanding amount of LTROs increased from €150 billion in June 2007 to over €600 billion by the end of 2008. Over the same period, the total amount of outstanding liquidity almost doubled, peaking at €857 billion on 2 January 2009, more than 9 per cent of euro area GDP and nearly 4 per cent of total euro area MFI financial assets

⁵⁷ Alessi L and Detken C "Real-Time" Early Warning Indicators for Costly Asset Price Boom/Bust Cycles: A Role for Global Liquidity' (2009) 1039 ECB Working Paper

⁵⁸ De Santis R.A., Favero C.A. and Roffia B 'Euro Area Money Demand and International Portfolio Allocation: A Contribution to Assessing Risks to Price Stability' (2008) 926 ECB Working Paper

However, it had been said that "The ECB's extraordinary policy measures have been a response to extraordinary circumstances". In the middle of 2009, financial markets increasingly showed signs of stabilisation. As such the Governing Council, which had from the start of the crisis stated that these measures would not be maintained forever and that they should be phased out as soon as the underlying rationale had faded away, decided to uphold those non-standard measures that were no longer needed in order to avoid the distortions with respect to maintaining non standard measures for too long or keeping interest rates at very low levels for a long period of time.⁵⁹ Taking into consideration that the exceptional measures applied over a longer period of time could have had adverse results for economic growth, sustainability of asset price developments as well as the outlook for price stability, the Governing Council had made clear that the nonstandard policy measures would be phased out once the underlying rationale had ceased to apply.⁶⁰ This was not such hard as the most operations carried out had been conducted as repurchase transactions which could be easily terminated by not renewing them upon maturity. The ECB, in December 2009, decided that the LTRO in that month would be the last one with a 12-month maturity, only one 6 month LTRO would be continued and that the supplementary three month LTROs would be discontinued. It also stopped the provision of non – euro funding. 61

⁵⁹ Trichet J.-C., 'The ECB's Enhanced Credit Support' (13 July 2009) Keynote address at the University of Munich; European Central Bank, 'Recent Developments in the Retail Bank Interest Rate Pass-Through in the Euro Area' (August 2009) Monthly Bulletin 93–105.

⁶⁰ Trichet J-C, 'State of the Union: The Financial Crisis and the ECB's Response between 2007 and 2009: STATE OF THE UNION: THE FINANCIAL CRISIS AND THE ECB'S RESPONSE 2007-09' (2010) 48 JCMS: Journal of Common Market Studies 7

⁶¹ Ibid.

1.3.1.4 The Sovereign Debt Crisis

Although in 2010 the crisis had shown signs of retreat, some tensions reemerged in the euro area government bond markets. 62 Spreads between 10 year government bonds started to increase, as a result of increasing market concern about the sustainability of public finances in view of rising government deficits and debt. The concerns leaded to drying up some secondary markets. In May of 2010 government bonds spreads reached record highs leading euro area governments to announce a comprehensive package of measures including the European Financial Stability Facility. The ECB also announced the launce of the Securities Market Programme, the third and latter element of the response of the ECB to the crisis, among the other two; namely the interest rate reductions and the credit support measures. The Securities Market Programme gave to the Eurosystem the possibility to carry out interventions in the euro area in order for public and private debt securities markets to ensure liquidity in market segments and restore the proper functioning of the monetary policy transmission mechanism. In order to be in line with the provisions of the TFEU, Eurosystem purchases of government bonds are strictly limited to secondary markets. To ensure that liquidity conditions would not be affected all purchases are fully sterilized by conducting liquidity absorbing operations. The ECB, also decided to reintroduce some of the nonstandard measures that had been withdrawn earlier in order to avoid

⁶² European Central Bank, 'The ECB's Response to the Financial Crisis' (October 2010) Monthly Bulletin 16.

spillover effects from domestic sovereign bond markets to other financial markets. 63

1.3.2 The effectiveness of the ECB's Response to the Crisis

The response of the ECB to the crisis has been characterised by experts as particularly effective as inflations in the euro area had been broadly stable. In fact, the exceptional policy measures, supported the flow of credit to the economy both for demand and supply factors. Ensuring that banks had broad access to liquidity, increased their ability to lend to the real economy and place pressure on bank lending rates. Interest rates on short term loans declined significantly, decreasing substantially financial market volatility. Moreover, the purchase of covered bonds by the ECB contributed to the revitalisation of the covered bond market and to the decline of covered bond spreads.⁶⁴ The non-standard measures on the other hand, bought time for banks to restart loan growth as early as possible despite the circumstances.⁶⁵

As a result, we can characterise the response of the ECB as flexible and decisive to the challenges posed by the economic crisis. The ECB's response not only helped sustain financial intermediation in the Euro area but also preserved the viability of the banking system making credits available for households and companies in accessible rates and maintaining price stability. As such, the intervention of the ECB through

⁶³ Trichet J.-C., 'The ECB's Enhanced Credit Support' (13 July 2009) Keynote address at the University of Munich

⁶⁴ Preliminary empirical analysis suggests that, when comparing covered bond yields with a risk-free benchmark, it appears that German covered bond spreads have declined to below pre-2008 levels, whereas covered bond spreads in other euro area countries have reached their pre-Lehman levels.

⁶⁵ Papademos L, 'Financial Stability and Macro-Prudential Supervision: Objectives, Instruments and the Role of the ECB'. Speech of 4 September 2009

all the stages of the crisis from the beginning to the end and the sovereign debt crisis was crucial for the economy of the EU. At the same time, we have to underline that the ECB was not only a passive observer of the crisis but took a dominant role in creating and applying measures crucial for the economy to return into normalcy.⁶⁶

Before this chapter closes, it is crucial to ass something very intriguing. The following part is the conclusion in the welcome address by Mr. Jean-Claude Trichet of the ECB colloquium held in honor of Mr. Lucas Papadimos on 20-21 of May 2010 titled "the great financial crisis".⁶⁷

This part shows the struggle and the hard innovative initiatives that the governing council of the ECB had to adopt to support financial stability in the EU at those difficult. In my opinion it presents a radical new way of thinking and a new way of acting with respect to the policies of the ECB from that point onwards. This next text is a statement of decisive nature of the ECB in times of need for the years to come. I strongly believe that this is what Europe is about, to work collectively and actively to overcome the struggles of life together as a homogenous unit without sentimentalities and political cost. Mr Papademos stated the following:

"To conclude, let me say a few words on the recent decisions of the Governing Council taken on 9 May and announced on 10 May. As I

⁶⁶ European Central Bank, 'The ECB's Response to the Financial Crisis' (October 2010) Monthly Bulletin 16.

⁶⁷ Trichet J-C, 'State of the Union: The Financial Crisis and the ECB's Response between 2007 and 2009: STATE OF THE UNION: THE FINANCIAL CRISIS AND THE ECB'S RESPONSE 2007-09' (2010) 48 JCMS: Journal of Common Market Studies 7; European Central Bank, 'The Great Financial Crisis – Lessons for Financial Stability and Monetary Policy – An ECB Colloquium Held in Honour of Lucas Papademos' (20-21 May 2010)

already said publicly, I will sum up in five points the Governing Council's position.

- **1**. The ECB is fiercely independent and takes all its decisions independently of governments, social partners and pressure groups of any nature.
- **2**. We are inflexibly attached to price stability, our primary mandate. Our successful track record since the inception of the euro is remarkable.
- **3**. Our present monetary policy stance is appropriate. Our decisions taken on 9 May have confirmed it. We are not engaging in any form of "quantitative easing".
- **4**. The 'Securities Markets Programme' is designed to ensure an effective functioning of the monetary policy transmission mechanism by helping to resolve a malfunctioning of some segments of the euro area debt securities markets.
- **5**. The liquidity provided through this program is withdrawn in its entirety through tenders of term deposits."68

Consequently, Lucas Papadimos not only affirmed but also supported the stance of the ECB to confront the crisis of 2009. His statements made clear that the ECB should be the sole responsible for affronting any crisis like that and its major responsibility is to hold prices stable and provide always liquidity; exceptional measures in difficult circumstances must be permitted.

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⁶⁸ Ibid.

After having addressed the response of the ECB to the economic crisis of 2007, we are going to examine its response to the current economic crisis that the COVID-19 pandemic brought into light. We are going to discuss in detail the measures that the ECB proposed and we are going to assess its differences and similarities with respect to the economic crisis of 2007.

SECOND PART

Having examined the facts of the economic crisis of 2007, the structure, role and functions of the ECB as well as its approach towards the economic crisis of 2007, its time to turn our interest to the current COVID-19 crisis and especially its effects on the global economy. At first, we are going to address the economic effects of the COVID-19 pandemic and in a second place we are going to examine the ECB's response to the pandemic.

2.1 The Economic Effects of the COVID-19 Pandemic

The spread of COVID-19 and the lockdown measures have represented a real-economic shock. The economic damage from the COVID-19 pandemic cannot be exactly predicted but there is a strong agreement among economists that it will have severe impacts on global economies. Early estimates had shown that most major economies of the world will lose at least 2.9 percent of the GDP over 2020. This forecast was restated to a GDP loss of 3.5 percent. Restrictions to travelling and lockdown measures have largely caused a fall in demand, meaning that there are fewer consumers who want to purchase the goods offered by the global economy such as air tickets or oil, fuels and cars. Furthermore, a lot of people are working from home, there have been set travel bans and sporting event cancellations as well as prohibitions of gatherings. People are suggested to not gather in public

⁶⁹ Battistini N, Stoevsky G, 'Alternative scenarios for the impact of the COVID-19 pandemic on economic activity in the euro area' (2020) Economic Bulletin Focus

⁷⁰ M. Szmigiera, Impact of the coronavirus pandemic on the Global Economy - Statistics and Facts, 15 September 2021, Statista

spaces, such as restaurants, shopping centers, and museums. At the same time a large number of people have experienced the severe symptoms of this respiratory disease which has led not only to deaths but also to the collapse of some countries' health facilities. However, we should always bear in mind that the consequences of COVID-19 will not be equally distributed throughout the economy.⁷¹

The COVID-19 crisis has been characterized as the most severe global crisis after the second World War, in which the unemployment rate increased about 2 percentage points. Although we can draw some parallels with the current situation, we should be cautious because now we live in a very different world compared with those to different crises. As such, some authors underline that we should not only be cautious with respect to comparisons made but it may sometimes be also dangerous. They have underlined that this time we are facing a combined demand and supply shock and economic tools are limited and the potential impacts of this crisis are larger than any previously seen in history. However, the available evidence from these prior outbreaks (for instance SARS, the Spanish flu of 1918 or the ebola outbreak) provides us with some information that can start thinking about the full implications of COVID-19.

However, authors suggest that during the COVID-19 pandemic there is no correlation between economic impact and mortality rates. As we have shown already, the reaction of governments, companies, consumers and media, have all created a simultaneous demand and

⁷¹ Nuno Fernandes. Economic effects of coronavirus outbreak (COVID-19) on the world economy, 13 April 2020,

⁷² ibid.

supply shock.⁷³ Some of the reasons that have made comparisons different from other global crises are that it is a global pandemic, it is not focused on low-middle income countries but it has affected the most strong economies such as China and the EU and we have destruction of both demand and supply. It should be also noted that the SARS COVID that China has suffered some years ago, may be similar from a medical perspective as both are coronavirus infections but their economic impacts are bound to be very different. This happens because China represented only 3% of the world economy in 2003 and now it is above 16%. As such, any shock to Chinese activity is strongly felt in markets around the world, in all different sectors. Last but not least, the world economy is much more integrated and united than it was some years ago. Therefore, economic disruption in one location has much larger spillover effects all over the world.⁷⁴

As we have pointed out, the differences of COVID-19 pandemic with other crises are evident. However, this shall not be a deterrent factor to examine how the ECB has affronted the economic crisis of 2007 and the COVID-19 pandemic. In fact, it is important to understand what the ECB has taken into consideration when battling the pandemic with respect to provisional measures in contrast to what we show in the previous chapter.

⁷³ ibid

⁷⁴ Fernandes N, 'Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy' (13 April 2020) IESE Business School

We are going to navigate into these extraordinary measures that the ECB has taken in the following paragraphs (section 2.3).

2.2 The Response of the EU towards Covid-19 Pandemic

After the economic crisis of 2009, the EMU has not shown significant growth overall. In fact, from 2010 (the first year of the recovery) to 2019 the growth rate of GDP was only 1.36 percent showing that each country responded differently.⁷⁵ In the same vein, different approaches were adopted in order to fight against the COVID-19 pandemic, criticized by some authors for the uncoordinated response of the EU towards the pandemic, not only with respect to economic measures undertaken to confront the pandemic but also regarding the approach of different countries towards the health emergency. Differences were seen in each sector of action from the lockdown measures taken to the distribution of the COVID-19 vaccines.⁷⁶ Yet, the great threat imposed to each individual country as well as to the EU as a whole, increased the pressure in the EMU to pursue common policies.

The European Commission has acknowledged that the COVID-19 crisis constitutes a severe shock for the European and global communities. States have undertaken a series of different economic measures in order to increase the capacity of their health systems and provide the necessary help to the citizens and sectors that are particularly impacted

⁷⁵ Altavilla, C., Barbiero, F., Boucinha, M. and Burlon, L. 'The great lockdown: pandemic response policies and bank lending conditions' (2020) 2465 ECB *Working Paper Series*

⁷⁶ Judy Dempsey, 'Judy Asks: Is the EU doing enough to fight Coronovirus Globally?' (/carnegieeurope.eu, 2021) < https://carnegieeurope.eu/strategiceurope/84431 > accessed on 15 November 2021

by the crisis.⁷⁷ The European Commission has introduced several initiatives to support the economy, such as the Coronavirus Response Investment Initiative and the Coronavirus Response Investment Initiative Plus,⁷⁸ the Emergency Support Instrument,⁷⁹ state aid actions⁸⁰ and it has for the first time in history activated the general escape clause of the Stability and Growth Pact (SGP) as part of its strategy to respond to the COVID-19 pandemic in a timely and coordinated manner. In fact the latter measure has helped national governments to support national economies as budgetary rules have been significantly relaxed. Furthermore, on March 2021 the European Commission adopted a Communication providing member states with broad guidance in relation to fiscal policies in Member states essential to support the economic recovery.⁸¹ The Communication has opted for not only a more flexible fiscal policy but also a coordination of fiscal policies in Member states, a necessary measure for the economic recovery.⁸² Apart from all

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⁷⁷ European Commission, Jobs and Economy during the coronovirus pandemic (ec.europa.eu, 2021) < https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/jobs-and-economy-during-coronavirus-pandemic en > accessed on 30 October 2021

⁷⁸ European Commission, Cohesion Polixy Action against Coronavirus (ec.europa.eu, 2021) < https://ec.europa.eu/regional_policy/en/newsroom/coronavirus-response/ > accessed on 15 November 2021

⁷⁹ European Commission, Emergency Support Instrument (ec.europa.eu, 2021) < https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/emergency-support-instrument_en > accessed on 10 December 2021

⁸⁰ European Commission, State Aid Cases (ec.europa.eu, 2021) < https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/jobs-and-economy-during-coronavirus-pandemic/state-aid-cases_en > accessed on 3 September 2021

⁸¹European Commission, Jobs and Economy during the coronovirus pandemic (ec.europa.eu, 2021) < https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/jobs-and-economy-during-coronavirus-pandemic_en > accessed on 3 December 2021

⁸² European Commission, Communication from the Commission to the Council, One year since the break of COVID-19: fiscal policy response, Brussels, 3 March 2021, COM (2021) 105 final.

these measures that have been set by the European Commission, the European Central Bank has adopted a range of measures in order to support economic growth as well as provide liquidity in these difficult times.

2.3 ECB's Response to the Corona Crisis

To battle against the Coronavirus pandemic, the ECB has put in place a set of monetary policy and banking supervision measures through which it aimed to mitigate the negative consequences of the COVID-19 pandemic on the euro area economy as well as on European citizens.⁸³

As Isabel Schnabel notes, member of the Executive Board of the ECB at a speech given quite recently at the Federal Research Bank of New York Conference, "the economic developments caused by the COVID-19 pandemic have been highly unusual." The pandemic represented a significant challenge to monetary policy. Using the words of Lagarde, "the Coronavirus has produced a highly unusual recession and it is likely to give rise to a similarly unsteady recovery". Measures undertaken by the ECB have been in such a way extraordinary meaning that they were not created to apply in times of normalcy. 85

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⁸³European Central Bank, Our response to Coronavirus Pandemic (ec.europa.eu, 2021) < https://www.ecb.europa.eu/home/search/coronavirus/html/index.en.html > accessed on 3 December 2021

⁸⁴European Central Bank, Lessons from an unusual crisis (ec.europa.eu, 2021) https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp211001~ca589c6afc.en.html > accessed on 15 November 2021

⁸⁵ Lagarde C, 'Monetary Policy in a Pandemic Emergency' (2020a) Keynote speech by Christine Lagarde, President of the ECB, at the ECB Forum on Central Banking, (ecb.europa.eu, 2021) < https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201111~d01e03eb9c.en.html > accessed on 15 November 2021

2.3.1 Measures undertaken by the ECB to battle against the Pandemic

It is important to note that the ECB's monetary measures during the COVID-19 pandemic must be seen in the context of a monetary policy that has not yet returned to normality after the Great Recession of 2009. The ECB's recent measures to confront the COVID-19 pandemic can be grouped in two different categories that refer to monetary and banking channels, respectively. On the one hand, as I am going to express in detail below, the monetary category includes the monetary policy stimuli based on the continuation and the one-off strengthening of the Asset purchase program (APP) and on the launch of the new pandemic emergency purchase program (PEPP). The second category, referring to banking channels, included the refinancing of the euro area banking sector by means of the pandemic emergency longer-term refinancing operations (PELTRO) and by strengthening the targeted longer-term refinancing operations (TLTRO III) that have been already in place even before the COVID-19 outbreak. The second category is place even

In the blink of an eye, the coronavirus pandemic and the response to it placed the global economy in an induced coma. The ECB has acted forcefully and well within its mandate. Our crisis response shows that our legal framework is flexible, but only up to a certain point. The

⁸⁶ Benigno P and others, 'The ECB's Measures in Support of the COVID-19 Crisis' (March 2021) European Parliament Monetary Dialogue Papers 29; Grund Sebastian 'Legal, compliant and suitable: The ECB's Pandemic Emergency Purchase Programme (PEPP)' (2020) Delors Institute Policy Brief

⁸⁷ Benigno P, Canofari P, Di Bartolomeo G. and Messori M, 'Uncertainty and the Pandemic Shocks' (2020) Study for the Committee on Economic and Monetary Affairs, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg

efficiency of our response has been strengthened by the concurrent reaction on the fiscal side which is more useful than excessively stretching the monetary policy mandate.

The ECB itself has acknowledged that the crisis measures should be temporary and targeted. They are justified only in the light of the exceptional circumstances seen during the pandemic. Extraordinary times require extraordinary action. As the crisis evolves and subsides, the ECB will reconsider its tools and supervisory practices.⁸⁸

2.3.1.1 Monetary Measures

It was on 12 March 2020 that the ECB's GC decided to strengthen the existing APP. There was introduced a program of a EUR 20 million monthly purchase of securities as well as an overall temporary purchase increase of EUR 10 billion by the end of 2020. A little bit later, following the aim to lower borrowing costs and increase lending in the euro area, in 18 March of 2020 the ECB GC launched the PEPP, ⁸⁹ through which it decided to offset the negative impact of the pandemic shock on firms' liquidity and on households' income by easing the fiscal constraints on national public spending and the short terms sustainability conditions of the consequent increase in national government debts. In simple terms,

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⁸⁸Legal Aspects of the ECB's Response to the Coronavirus Pandemic – an exclusive but narrow competence, (ec.europa.eu, 2021) < https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201102~5660377b52.en.htm accessed on 15 November 2021

⁸⁹ Katarzyna Budnik, Ivan Dimitrov, Johannes Groß, Martina Jancoková, Max Lampe, Bianca Sorvillo, Anze Stular, Matjaž Volk, 'Policies in support of the lending following the coronavirus (COVID-19) Pandemic' (May 2021) 257 European Central Bank Occasional Paper Series 1

the PEPP should help citizens, firms and governments have access to funds they may need in order to deal with the crisis. The program was considered to offer an envelope of 750 billion to be pumped into the economic system by the end of 2020. The PEPP deviated from this rule: "At the same time, purchases under the new PEPP will be conducted in a flexible manner. This allows for fluctuations in the distribution of purchase flows over time, across asset classes and jurisdictions". 90 This allowed the ECB to focus on purchasing securities from those EMU- countries that have been hit hardest by the Covid- 19 crisis, such as Italy, Spain or Greece. In addition, the quality of the collateral that the ECB must take into account in its asset purchases was further reduced. For example, claims of banks on small and mediumsized companies have since been accepted as collateral. In addition, it should be kept in mind that the ECB can use the instrument of outright monetary transactions (OMT), which was established in September 2012.91 This allows the ECB to buy an unlimited number of government securities from individual EMU member states on the secondary market, provided that these are subject to the requirements of the European Stability Mechanism (ESM) According to the announcements of the ECB, the designed program provided the Bank to buy several different kinds of assets such as bonds directly from banks or companies, providing the

⁹⁰ Lane P C, 'Monetary Policy in a Pandemic: Ensuring Favourable Financing Conditions' (2020a) Speech by Philip R. Lane, Member of the Executive Board of the ECB at the Economics Department and IM-TCD, Trinity College Dublin, (ec.europa.eu, 26 November 2020) https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201126~c5c1036327.en.html > accessed on 15 November 2021

⁹¹ Gregory Claeys, 'The European Central Bank in the COVID-19 crisis: Whatever it takes within its mandate' (2020) 9 Bruegel Policy Contribution 1

first with more funds available to led to households or businesses and the latter with an additional source of credit.⁹²

The PEPP was subjected to two major changes decided by the Governing Council of the ECB. At a first point the program was increased by 600 billion, so that it reached a total amount of 1.35 trillion as well as its horizon was extended. It was decided that the PEPP would be functioning till the European Economies would not be affected by the negative effects of the pandemic. The second change was characterized by a further increase of the PEPP envelope by 500 billion, reaching a total of 1.85 trillion. Christine Lagarde, the President of the ECB, herself assured that "...we will not hesitate to adjust the size, duration and composition of the PEPP to the extent necessary. We will use all the necessary flexibility within our mandate. There is no psychological obstacle to our action" giving the impression that the ECB has a very high degree of freedom in designing the PEPP and intervene in the market to assure that there is the liquidity required. 93

Last but not least, the ECB's Governing Council extended the reinvestment of principal payments from maturing securities purchased under the program until at least the end of 2023. It is important to note that in view of the pandemic's exceptional nature, the PEPP does not

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⁹² Heine M, Herr H, 'The COVID-19 Crisis and its Effects on the EMU' in *The European Central Bank* (2021) Agenda Publishing 151

⁹³ Lagarde C, 'Monetary Policy in a Pandemic Emergency' (2020a) Keynote speech by Christine Lagarde, President of the ECB, at the ECB Forum on Central Banking, (ecb.europa.eu, 2021) < https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201111~ d01e03eb9c.en.html > accessed on 15 November 2021

follow the same self-imposed purchase limits that apply to the sovereign purchases under the APP.⁹⁴

Furthermore, the Bank decided to adopt a set of temporary collateral easing measures in April 2020. The aim of these measures was to support liquidity operations and ensure continued collateral availability. For instance, the ECB decided to extend the national additional credit claim framework (ACC) to include loans benefiting from public guarantee schemes related to COVID-19 crisis, although they could lead to increased fragmentation temporarily. At the same time, it took the decision to maintain issuers eligible and assets marketable in case that a deterioration in credit ratings could happen.⁹⁵

This policy was complemented by ECB's announcements in different press releases that underlined in general terms how the monetary policy that the ECB had introduced could be implemented in practice. These announcements were referring to statements of the President Lagarde and other Members of the ECB's Governing Council repeatedly emphasizing that monetary policy could not be the only responsible "player in town" during the economic crisis and that an expansionary and centralized European fiscal policy should be also set in place. At the

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⁹⁴ European Central Bank, 'Base Money, Broad Money and the APP', *ECB Economic Bulletin* (2017); Grund Sebastian 'Legal, compliant and suitable: The ECB's Pandemic Emergency Purchase Programme (PEPP)' (2020) *Delors Institute Policy Brief*, available at https://www.delorscentre.eu/en/publications/detail/publication/legal-compliant-and-suitable-the-ecbs-pandemic-emergencypurchase-programme-pepp/

 $^{^{95}}$ Legal Aspects of the ECB's Response to the Coronavirus Pandemic – an exclusive but narrow competence, (ecb.europa.eu, 2021) < https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201102~5660377b52.en.htm > accessed on 13 December 2021

same time, Ms Lagarde was continuously referring to the importance of adjusting measures where appropriate in order to confront any further situation.⁹⁶

2.3.1.2 Banking Supervision Measures

The ECB quite early recommended that all banks under its supervision should restrict their dividend distributions due to the COVID-19 pandemic. ⁹⁷ In fact the ECB was one of the first supervisory authorities to recommend this and a lot of other supervisory bodies around the world followed the same path although they were not legally bound to do so. The recommendation exceptionally has adopted a "one-size-fits-all" approach rather than a bank-by-bank basis (the usual supervisory practice of assessing the planned distribution of dividends) owing to the current economic uncertainty banks are experiencing, leaving them quite simply unable to forecast their medium-term capital needs.

One of the supervisory measures that were adopted and set in force was the PELTRO. The PELTRO was centered on seven refinancing operations to be implemented between May and December 2020 and to be closed by September 2021. Banks taking advantage of this program benefitted

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⁹⁶ Lane P C, 'The ECB's Monetary Policy in the Pandemic: Meeting the Challenge' (2020b), Speech by Philip R. Lane, Member of the Executive Board of the ECB, at the 62nd NABE Annual Meeting "Global Reset? Economics, Business, and Policy in the Pandemic," (ecb.europa.eu, 6 October 2020) < https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201006~e1d38a1ccc.en.html > accessed on 15 November 2021

⁹⁷ Katarzyna Budnik, Ivan Dimitrov, Johannes Groß, Martina Jancoková, Max Lampe, Bianca Sorvillo, Anze Stular, Matjaž Volk, 'Policies in support of the lending following the coronavirus (COVID-19) Pandemic' (May 2021) 257 European Central Bank Occasional Paper Series 1

from collateral easing measures and an interest rate of 0.25 per cent below the interest rate for main refinancing operations. This program is characterized by the ECB's fixed-rate liquidity supplies for an amount that is only limited by the corresponding demands from banks. Each of these refinancing operations has had an interest rate equal to the average interest rate on the ECB'S main refinancing operations. In any case, we should bear in mind that PELTRO was a new emergency refinancing operation in order to provide credit to banks and the real economy, several refinancing operations is a traditional tool that the ECB has at its disposal even in normal times. 99

On the other hand, the program TLTRO III was organized with the aim to provide a refinance of the euro area banking sector for three years as well as to continue the targeted program designed between March and June 2019 and launched in September of the same year. In fact the TLTRO's had already been underway since 2014 and had made refinancing even more attractive for banks when lending to the private sector. The interest rate for TLTRO- financing fell to 0.25 per cent below the interest rate of the deposit facility, which means the interest rate was - 0.75 per cent. In April, the interest rate on these transactions was lowered further to - 1 per cent: banks received 1 per cent interest when they borrowed from the ECB to lend to the private sector. In

⁹⁸ Heine M, Herr H, 'The COVID-19 Crisis and its Effects on the EMU' in *The European Central Bank* (2021) Agenda Publishing 151

⁹⁹ Ibid

¹⁰⁰ European Central Bank, 'Decision (EU) 2020/440 of The European Central Bank of 24 March 2020 on a temporary pandemic emergency purchase programme (ECB/2020/17)' (2020) Official Journal of the European Union,

¹⁰¹ Ibid (n 98)

reality the program has offered refinancing for a maximum amount of the half of the eligible loan stock accounted in the balance sheet of each bank at the end of February 2019, thus increasing the previous threshold which was equal to thirty percent of the eligible loans. Last but not least, the ECB became more tolerant towards higher risks as it offered the possibility to ease collateral requirements until June 2021. The ECB decided to launch three additional TLTRO III operations from June to December 2021 as well as extend the most favorable interest rates and collateral conditions, set in previous meetings, by one year. ¹⁰²

In comparison to these two mechanisms, it has been observed PELTRO garnered little response, which is not surprising as the more attractive TLTRO provided sufficient refinancing for banks.¹⁰³

2.4 The obligation of the ECB to respect certain 'legal limits'

At a first point of view, it is important to take a closer look at the competence of the ECB with respect to defining European monetary policy for the purpose of maintaining price stability. The European Court of Justice has consistently held that the ECB enjoys broad discretion in defining monetary policy within its mandate in order to maintain price stability. However, discretion can also lead to some arbitrary decisions. As such the ECJ has insisted that it has a role in controlling this freedom of the ECB to act on the basis of criteria that have been described as self-imposed constraints. At the same time the ECB is bound to respect some

¹⁰² Ibid (n 97)

Legal Aspects of the ECB's Response to the Coronavirus Pandemic – an exclusive but narrow competence (ecb.europa.eu, 2021) https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201102~5660377b52.en.htm accessed on 15 November 2021

legal principles such as the notion of proportionality or the principle of legality as well as the prohibition of monetary financing and the principle of an open market economy, in which resources have been allocated efficiently.¹⁰⁴

According to article 18 para 1 of the Statute of the ESCB, "to achieve its objectives, the ECB may operate in the financial markets by buying and selling marketable instruments outright and may conduct credit operations based on adequate collateral." Therefore, we can assume that the ECB has the total freedom in choosing the adequate instruments in order to achieve its objectives. Taking exceptional measures to tackle the pandemic is a legally sound method for the ECB to act. However, exceptional measures shall always be temporary, targeted and proportionate in nature. As such, all the specific programs designed to offer liquidity and support the economy of the EU shall have duration only till the end of the crisis.

With respect to the special measures that the ECB adopted to tackle the pandemic, it is important to mention that the PEPP, with the vision to pursue monetary policy objectives, falls within the ambit of action of the ECB. In the *Gauweiler* case, ¹⁰⁶ the first preliminary reference made by the German Constitutional Court to the ECJ, the latter gave the green light to the ECB's to selectively purchase Eurozone Government Bonds in secondary markets. In fact, the Court acknowledged to the ECB an

Claudia Foroni, Massimiliano Marcellino, Dalibor Stevanović, 'Forecasting the COVID-19 recession and recovery: lessons from the financial crisis' (September 2020) 2468 European Central Bank Working Paper Series 1

¹⁰⁵ Protocol n 4 on the Statute of the European System of Central Bank and of the European Central Bank C 202/230

¹⁰⁶ Court of Justice of the European Union (2015) Case C-62/14, Gauweiler v. ECB,

institutional empowerment while it has set some limits to its authority relying on the principle of proportionality. Indeed, the *Gauweiler* case provided a normative legitimation to the austerity model adopted at the time while also granting the ECB a distinct role not only in monetary policy but also in shaping the general economic policy of the EU.¹⁰⁷

Except for the acknowledgement by the ECJ that monetary policy belongs to the competence of the ECB, the PEPP Decision has underlined that "Purchases shall be carried out...to the extent deemed necessary and proportionate". The proportionality assessment of the PEPP must be supported by economic analysis which shows that the measure: (i) is suitable for attaining the monetary policy objective in current and future environments; (ii) does not go beyond what is necessary in order to achieve this objective; and (iii) weighs up the various interests involved to prevent any disadvantages which are manifestly disproportionate to the objectives set. In these terms, the Governing Council of the ECB assessed that the PEPP was the most appropriate instrument compared to a recalibration of standard policy tools. such as interest rate cuts. At the same time in the Weiss Judgement, 108 the ECJ ruled that the ECB must be allowed broad discretion in making these assessments but with strict criteria. However, we should be aware that this judgement has received criticism by the German Constitutional Court which judged that

¹⁰⁷ Takis Tridimas, Napoleon Xanthoulis, "A legal analysis of the Gauweiler case: Between Monetary Policy and Constitutional Conflict", Maastricht Journal of European and Comparative Law, 1 February 2016

¹⁰⁸ Court of Justice of the European Union (2018) Case C-493/17, Weiss v. ECB

the decision of the ECJ was ultra vires as it did not contain proper reasoning with respect to the legality of the measures adopted by the ECB.¹⁰⁹

As for the temporary collateral easing measures the following can be said; their legality is safeguarded by virtue of the risk management measures with which they are associated, in order to ensure that the Eurosystem would not suffer losses if the collateral were realized. In this way, the ACCs which are not loss sharing like the standard monetary policy instruments, can be classified as "adequate collateral" in accordance with Article 18.1 of the Statute of the ESCB.¹¹⁰

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¹⁰⁹Pavlos Eleftheriadis, The German Constitutional Court's Weiss Judgement in a Failure of German Constitutionalism (eliamep.gr, 2015) https://www.eliamep.gr/en/publication/%CE%B7-%CE%B1%CF%80%CE%BF%CF%86%CE%B1%CF%83%CE%B7-weiss-%CF%89%CF%82-%CE%B1%CF%80%CE%BF%CF%84%CF%85%CF%87%CE%AF%CE%B1-%CF%84%CE%BF%CF%85-

 $[\]frac{\% CE\% B3\% CE\% B5\% CF\% 81\% CE\% BC\% CE\% B1\% CE\% BD\% CE\% B9\% CE\% BA\% CE\% BF\% CF\% 8}{D/} > accessed on 15 November 2021$

¹¹⁰Legal Aspects of the ECB's Response to the Coronavirus Pandemic – an exclusive but narrow competence, (ecb.europa.eu, 2021) < https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201102~5660377b52.en.htm accessed on 15 November 2021

Concluding Remarks

To sum up, we can conclude that Central Banks, such as the ECB will always be the first public institution to act when a financial crisis hits. The fact that they provide interbank payment and that they set in force settlement systems puts them on the front line. Indeed, as we have seen earlier they have the ability to provide an almost unlimited system-wide liquidity at a very sort period of time. The ECB is indeed the monetary policymaker for the Eurozone and it has reacted almost in the same way to confront both the economic crisis of 2007 and the crisis following the COVID-19 pandemic.

Indeed, comparing measures that the ECB has taken to confront the 2007 economic crisis and the COVID-19 pandemic will not find us before huge differences. In both cases the main object was to provide liquidity and maintain financial stability. Although the way that the ECB adopted the measures differed in the two crises, the expended outcomes were almost the same. More specifically, as we shown the ECB at the first steps of the economic crisis of 2007 adopted measures in line with the existent framework and only latter on it adopted additional and exceptional measures to provide liquidity by reducing the interest rates and engaging in refinancing operations. In contrast, with respect to the COVID-19 crisis the ECB reacted quite rapidly by adopting exceptional measures such as the PELTRO and TLTRO III to provide refinance to banks. The ECB showed a much more confident approach in intervening to both the monetary policy and fiscal policies as well as in its

supervisory role with respect to measures to confront the COVID-19 pandemic.

With respect to the efficiency of the measures taken it is important to underline that the ECB has by its mandate, something that has also be granted to it by the ECJ a wide discretion in adopting the necessary measures to combat economic crisis such as the ones that we mentioned and described above. Although some voices have been raised with respect to the legality of such interventions by the ECB, we can easily understand that without this mechanism Europe's economy could have failed and corrupted after such rapid and severe changes in the economic world. The ECB played the most important role in providing economic stability by its refinancing operations both in the crisis of 2007 and in the COVID-19 era.

We can conclude that almost all banks, as monetary policymakers, can provide liquidity to banks against good collateral. Whatever their source, existing financial stability mandates have permitted central banks to respond flexibly to the challenges generated by global economic crisis. What they will need in the future is a clearly articulated strategy for promoting financial stability. This is why they shall have realistic financial stability objectives in line with their primary monetary policy responsibilities, combined with the powers and instruments that they need to fulfil such objectives.

Bibliography

Books and Legal Articles

Alcaro R and Tocci N, 'The European Union in a COVID World' (2020) Istituto Affari Internazionali 16

Benigno P and others, 'The ECB's Measures in Support of the COVID-19 Crisis' (March 2021) European Parliament Monetary Dialogue Papers 29

Claeys G and others, 'The Great COVID-19 Divergence: Managing a Sustainable and Equitable Recovery in the European Union' (2020) Bruegel 16

Foroni C, Marcellino M and Stevanovic D, 'Forecasting the Covid-19 Recession and Recovery: Lessons from the Financial Crisis' [2020] International Journal of Forecasting S0169207020301916

European Central Bank, 'The ECB's Response to the Financial Crisis' (October 2010) Monthly Bulletin 16

Katarzyna Budnik, Ivan Dimitrov, Johannes Groß, Martina Jancoková, Max Lampe, Bianca Sorvillo, Anze Stular, Matjaž Volk, 'Policies in support of the lending following the coronavirus (COVID-19) Pandemic' (May 2021) 257 European Central Bank Occasional Paper Series 1

Claudia Foroni, Massimiliano Marcellino, Dalibor Stevanović, 'Forecasting the COVID-19 recession and recovery: lessons from the financial crisis' (September 2020) 2468 European Central Bank Working Paper Series 1

Trichet J-C, 'State of the Union: The Financial Crisis and the ECB's Response between 2007 and 2009: STATE OF THE UNION: THE FINANCIAL CRISIS AND THE ECB'S RESPONSE 2007-09' (2010) 48 JCMS: Journal of Common Market Studies 7

Gregory Claeys, 'The European Central Bank in the COVID-19 crisis: Whatever it takes within its mandate' (2020) 9 Bruegel Policy Contribution 1

Takis Tridimas, Napoleon Xanthoulis, "A legal analysis of the Gauweiler case: Between Monetary Policy and Constitutional Conflict", Maastricht Journal of European and Comparative Law, 1 February 2016

European Central Bank, 'The Great Financial Crisis – Lessons for Financial Stability and Monetary Policy – An ECB Colloquium Held in Honour of Lucas Papademos' (20-21 May 2010)

Heine M, Herr H, 'The ECB holds the Euro together' in *The European Central Bank* (2021) Agenda Publishing 111

Heine M, Herr H, 'The COVID-19 Crisis and its Effects on the EMU' in *The European Central Bank* (2021) Agenda Publishing 151

Fernandes N, 'Economic Effects of Coronovirus Outbreak (COVID-19) on the World Economy' (13 April 2020) IESE Business School

Battistini N, Stoevsky G, 'Alternative scenarios for the impact of the COVID-19 pandemic on economic activity in the euro area' (2020) Economic Bulletin Focus, available at https://www.ecb.europa.eu/pub/economic bulletin/focus/2020/html/ecb.ebbox202003_01~767f86ae95.en.html

Chiacchio F, Claeys G and Papadia F 'Should we care about central bank profits?' (2018) Policy Contribution Bruegel, available at https://www.bruegel.org/2018/08/shouldwe-care-about-central-bank-profits/

Claeys G, Demertzis M 'How should the European Central Bank 'normalise' its monetary policy?' (2017) Policy Contribution Bruegel, available at https://www.bruegel.org/2017/11/how-should-the-european-central-bank-normalise-its-monetary-policy/

European Central Bank, *The implementation of monetary policy in the euro area* (2011) European Central Bank, available at https://www.ecb.europa.eu/pub/pdf/other/gendoc201109en.pdf

European Central Bank, 'Base Money, Broad Money and the APP', ECB Economic Bulletin (2017)

European Central Bank 'ECB announces €750 billion Pandemic Emergency Purchase Programme (PEPP)', press release, 18 March 2020, European Central Bank, available at

 $\underline{https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318_1 \sim 3949d6f266.en.h} \\tml$

European Central Bank, 'Decision (EU) 2020/440 of The European Central Bank of 24 March 2020 on a temporary pandemic emergency purchase programme (ECB/2020/17)' (2020) *Official Journal of the European Union*, available at https://eur-lex.europa.eu/legal

content/EN/TXT/HTML/?uri=CELEX:32020D0440&from=EN

Eurogroup Report on the comprehensive economic policy response to the COVID-19 pandemic' (2020) Press Release, 9 April, available at https://www.consilium.europa.eu/en/press/pressreleases/
2020/04/09/report-on-the-comprehensive-economic-policy-response-to-the-covid-19-Pandemic

Grund Sebastian 'Legal, compliant and suitable: The ECB's Pandemic Emergency Purchase Programme (PEPP)' (2020) *Delors Institute Policy Brief*, available at https://www.delorscentre.eu/en/publications/detail/publication/legal-compliant-and-suitable-the-ecbs-pandemic-emergencypurchase-programme-pepp/

Alessi L and Detken C "Real-Time" Early Warning Indicators for Costly Asset Price Boom/Bust Cycles: A Role for Global Liquidity (2009) 1039 ECB Working Paper

Cheun S, von Köppen-Mertes I and Weller B 'The Collateral Frameworks of the Eurosystem, the Federal Reserve System and the Bank of England and the Financial Market Turmoil' (2000) 107 ECB Occasional Paper

De Santis R.A., Favero C.A. and Roffia B 'Euro Area Money Demand and International Portfolio Allocation: A Contribution to Assessing Risks to Price Stability' (2008) 926 ECB Working Paper

European Central Bank, 'Recent Developments in the Retail Bank Interest Rate Pass-Through in the Euro Area' (August 2009) Monthly Bulletin 93–105.

European Central Bank, 'The ECB's Monetary Policy Stance during the Financial Crisis' (January 2010) Monthly Bulletin 63–71.

Gerdesmeier, D., Roffia, B. and Reimers, H.-E. (2009) 'Asset Price Misalignments and the Role of Money and Credit'. ECB Working Paper No. 1068.

Mercier P, 'The Liquidity Management of the Eurosystem during the Financial Turmoil: August 2007 to February 2009' (2009) 2-3 *Forum Financier* 96–104.

Moutot P and Vitale G 'Monetary Policy Strategy in a Global Environment' (2009) 106 ECB Occasional Paper

Papademos L, 'Financial Stability and Macro-Prudential Supervision: Objectives, Instruments and the Role of the ECB'. Speech of 4 September 2009

Trichet J.-C., 'The ECB's Enhanced Credit Support' (13 July 2009) Keynote address at the University of Munich

Trichet, J.-C. 'The Financial Crisis and our Response so Far' (27 April 2009) Keynote

Altavilla, C., Barbiero, F., Boucinha, M. and Burlon, L. 'The great lockdown: pandemic response policies and bank lending conditions" (2020) 2465 ECB *Working Paper Series*

Benigno P, Canofari P, Di Bartolomeo G. and Messori M, 'Uncertainty and the Pandemic Shocks' (2020) Study for the Committee on Economic and Monetary

Affairs, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg, available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2020/658203/IPOL_STU(2020)658203_EN.pdf.

Lagarde C, 'Monetary Policy in a Pandemic Emergency' (2020a) Keynote speech by Christine Lagarde, President of the ECB, at the ECB Forum on Central Banking, available at: https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201111~d01e03eb9c.en.html

Lane P C, 'Monetary Policy in a Pandemic: Ensuring Favourable Financing Conditions' (2020a) Speech by Philip R. Lane, Member of the Executive Board of the ECB at the Economics Department and IM-TCD, Trinity College Dublin, 26 November 2020 https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201126~c5c1036327.en.ht

Lane P C, 'The ECB's Monetary Policy in the Pandemic: Meeting the Challenge' (2020b), Speech by Philip R. Lane, Member of the Executive Board of the ECB, at the 62nd NABE Annual Meeting "Global Reset? Economics, Business, and Policy in the Pandemic," 6 October 2020 available at https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201006~e1d38a1ccc.en.ht ml

Neri S and Siviero S, 'The non-standard monetary policy measures of the ECB: Motivations, effectiveness and risks' (2018) *Credit and Capital Markets*, 513-560

Rostagno M, Altavilla C, Carboni G, Lemke W, Motto R, Guilhem A S and J Yiangou, 'A Tale of Two Decades: The ECB's Monetary Policy at 20' (2019) ECB Working Paper No. 2346.

Szczerbowicz U, 'The ECB Unconventional Monetary Policies: Have They Lowered Market Borrowing Costs for Banks and Governments?' (2015) 11 (4) *International Journal of Central Banking*, 91-127

Bloom D E, Cadarette D and Sevilla J P, 'The Economic Risks and Impacts of Epidemics' (June 2018) International Monetary Fund, F&D Magazine

Cases

Court of Justice of the European Union (2015) Case C-62/14, Gauweiler v. ECB,

Court of Justice of the European Union (2018) Case C-493/17, Weiss v. ECB

Websites

Julia Kagan, 'What is a mortage' (investopedia.com, 8 September 2021) < https://www.investopedia.com/terms/m/mortgage.asp > accessed 25 December 2021

Federal 'The Great Recession Reserve History, and its Aftermath' (federalreservehistory.org, 15 2011) April < https://www.federalreservehistory.org/essays/great-recession-and-its-aftermath > accessed on 15 November 2021

Brian Duignan, 'Great Recession, economics 2007-2009' (britannica.com 15 November 2008) < https://www.britannica.com/topic/great-recession > accessed on 15 November 2021

Federal Reserve History. "Subprime Mortgage Crisis' (federalreservehistory.org, , 2007) https://www.federalreservehistory.org/essays/subprime-mortgage-crisis > accessed on 12 November 2021

Collateralized Debt Obligation (CDO) Definition (investopedia.com , 2009) < https://www.investopedia.com/terms/c/cdo.asp > accessed on 3 December 2021

What Is a Housing Bubble? Definition (investopedia.com, 2009) < https://www.investopedia.com/terms/h/housing_bubble.asp > accessed on 15 November 2021

European Central Bank (ecb.europa.eu, 2007) < https://www.ecb.europa.eu/home/html/index.en.html > accessed on 25 November 2021

European Comission, 'What is the Economic and Monetary Union' (.ecb.europa.eu, 2015) < https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/economic-and-monetary-union/what-economic-and-monetary-union-emu_en> accessed on 15 November 2021

Economic and Monetary union (EMU) (.ecb.europa.eu, 2012) https://www.ecb.europa.eu/ecb/history/emu/html/index.en.html > accessed on 15 November 2021

European Central Bank, History (.ecb.europa.eu , 2005) https://www.ecb.europa.eu/ecb/history/html/index.en.html > accessed on 13 October 2021

Eurosystem (nbb.be, 2010) < https://www.nbb.be/en/about-national-bank/eurosystem > accessed on 15 October 2021

The European Central Bank (ECB) (europarl.europa.eu, 2012) < https://www.europarl.europa.eu/factsheets/en/sheet/13/the-european-central-bank-ecb- > accessed on 15 November 2021

Factsheets on the European Union (2021) The European Central Bank, (europarl.europa.eu, 2021) https://www.europarl.europa.eu/ftu/pdf/en/FTU_1.3.11.pdf > accessed on 23 September 2021

James McBride, Andrew Chatzky and Christopher Alessi, 'The Role of the European Central Bank' (cfr.org, 3 October 2019) < https://www.cfr.org/backgrounder/role-european-central-bank > accessed on 15 November 2021

The definition of price stability (ecb.europa.eu, 2012) < https://www.ecb.europa.eu/mopo/strategy/pricestab/html/index.en.html > accessed on 15 November 2021

European Central Bank, Monetary Policy (ecb.europa.eu, 2021) < https://www.ecb.europa.eu/mopo/html/index.en.html > accessed on 3 November 2021

European Central Bank, Supervisory Policy Documents, (bankingsupervision.europa.eu, 2020) <

https://www.bankingsupervision.europa.eu/legalframework/supervisorypolicy/html/index.en.html > accessed on 4 October 2021

European Central Bank, Single Supervisory Mechanism (bankingsupervision.europa.eu, 2013) < https://www.bankingsupervision.europa.eu/about/thessm/html/index.en.html > accessed on 15 November 2021

European Central Bank, Our response to Coronavirus Pandemic (ec.europa.eu, 2021) < https://www.ecb.europa.eu/home/search/coronavirus/html/index.en.html > accessed on 3 December 2021

European Central Bank, Lessons from an unusual crisis (ec.europa.eu, 2021) https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp211001~ca589c6afc.en.ht ml > accessed on 15 November 2021

Lagarde C, 'Monetary Policy in a Pandemic Emergency' (2020a) Keynote speech by Christine Lagarde, President of the ECB, at the ECB Forum on Central Banking, (ecb.europa.eu, 2021) https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201111~ d01e03eb9c.en.html > accessed on 15 November 2021

European Commission, Cohesion Polixy Action against Coronavirus (ec.europa.eu, 2021) < https://ec.europa.eu/regional_policy/en/newsroom/coronavirus-response/ > accessed on 15 November 2021

European Commission, Emergency Support Instrument (ec.europa.eu, 2021) https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/emergency-support-instrument_en > accessed on 10 December 2021

European Commission, State Aid Cases (ec.europa.eu, 2021) < https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/jobs-and-economy-during-coronavirus-pandemic/state-aid-cases_en > accessed on 3 September 2021

European Commission, Jobs and Economy during the coronovirus pandemic (ec.europa.eu, 2021) < https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/jobs-and-economy-during-coronavirus-pandemic_en > accessed on 3 December 2021

Judy Dempsey, 'Judy Asks: Is the EU doing enough to fight Coronovirus Globally?' (/carnegieeurope.eu, 2021) < https://carnegieeurope.eu/strategiceurope/84431 > accessed on 15 November 2021

European Commission, Jobs and Economy during the coronovirus pandemic (ec.europa.eu, 2021) < https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/jobs-and-economy-during-coronavirus-pandemic_en > accessed on 30 October 2021