Monetary policy management and central banks Federal Reserve bank versus European Central bank

Aboubakr Boussalem[1], Belarg azeddine [2] Saoudi abdessamed [3]
[1] University centre of El bayadh,(Algeria) : *a.boussalem@cu-elbayadh.dz*
[2] University centre of El bayadh,(Algeria) :a.belarg@cu-elbayadh.dz
[3] Mohamed Boudiaf University (M'sila, Algeria) :saoudi28@yahoo.fr

Received: 19/12/2021 *Accepted: 07/06/2022* *Published:11./06/2022*

Abstract:

This research paper focus and revolve around the trends of global central banks in managing their monetary policies, led by the European Central Bank and the Federal Reserve of the United States, and the most significant similarities and differences between them in terms of the system and tools used to implement monetary policy for both, especially in times of crisis, by addressing the global financial crisis of 2008.

We adopted descriptive-analytical approach, and the one discovered that the Reserve Bank has a high and quick reaction in its monetary policy tools that it uses to address economic recovery, in contrast to the European Central Bank, which has a delayed response to monetary tools.

Key Words: central banks, management of monetary policy, European central bank , Federal reserve bank, tools.
JEL Classification: E5, E52, E58

[1]**Corresponding author** Aboubakr Boussalem, *a.boussalem@cu-elbayadh.dz*

1-Introduction

Central banks are the sole monetary authorities in any country with the authority to carry out the monetary policy to accomplish the specified economic policy objectives. With exact identification, central banks followed in the footsteps of the European Central Bank and the Federal Reserve, each with a stronger role to play in attaining monetary and financial stability and combating inflation.

In terms of monetary policy, the European Central Bank and the Federal Reserve have slightly different goals. The first aims to achieve price stability as its primary objective, whereas the Federal Reserve uses an accommodating monetary policy to target inflation.

Through increasing independence, openness, and the creation of monetary policy committees, central banking methods have evolved across the world. Even though there are genuine distinctions, such as in the way monetary policy committees' function, this has helped to diminish discrepancies across central banks.

From this introduction, we develop the following question:

How does the European Central Bank differ from the Federal Reserve in monetary policy conducting?

To answer the question above, the paper is divided into three main section in addition to the introduction and conclusion; the first display the literature review about of monetary policy and the role of central bank into implement this policy.

2-Monetary policy framework

2-1.The concept of monetary policy:

is the process by which the government, central bank, or monetary authority of a country controls the supply of money, availability of money, and cost of money or rate of interest to attain a set of objectives oriented towards the growth and stability of the economy. Monetary theory provides insight into how to craft optimal monetary policy.

2-1-1.ECB Monetary policy:

The implementation of the European Central Bank's monetary policy rests on two pillars. The first pillar, the monetary policy strategy, determines what level of

interest rate is required to maintain price stability over the medium term. The second pillar, the operational framework, is the set of instruments and procedures the ECB has at its disposal to determine how to achieve the desired interest rate. (Angelos Delivorias, 2015, p. 4)

concerns the decisions taken by central banks to influence the cost and availability of money in an economy. (European central bank, 2021).

2-2-1.FED monetary policy

Monetary policy in the United States comprises the Federal Reserve's actions and communications to promote maximum employment, stable prices, and moderate long-term interest rates-the economic goals the Congress has instructed the Federal Reserve to pursue. (Federal Reserve Bank, 2021).

Monetary policy is the process of overseeing a nation's money supply to complete specific objectives such as restraining inflation, or achieving full employment. Monetary policy can involve setting interest rates, margin requirements, capitalization standards for banks, and acting as the lender of last resort.

2-2. <u>Monetary policy goals</u>

Since the inception of central banks, monetary policy objectives have been intertwined with the provision of currency – notes and coins – and with the stability of the financial institutions that provide related forms of money (e.g. deposits).

Other objectives – such as the need to finance government during wartime – have also been prominent at various times. Monetary policy objectives have evolved as major macroeconomic problems have arisen. Many central banks either did not exist or were private institutions until the 20th century, and 19th century central banks did not have public policy objectives as we now understand them. (Christie Smith , Omar Aziz, 2019, p. 4)

1. **High employment**

Some unemployment is good for the economy (frictional unemployment); some – not (structural unemployment). Difficulty is determining optimal unemployment rate. (Irina A.Telykova, 2008, p. 12)

In short run, goal of price stability conflicts with low unemployment.

2. **Economic Growth**

The goal of steady economic growth is closely related to the high-employment goal because businesses are more likely to invest in capital equipment to increase productivity and economic growth when unemployment is low. Conversely, if unemployment is high and factories are idle, it does not pay for a firm to invest in additional plants and equipment. Although the two goals are closely related, policies can be specifically aimed at promoting economic growth by directly encouraging firms to invest or by encouraging people to save, which provides more funds for firms to invest. In fact, this is the stated

purpose of so-called supply-side economics policies, which are intended to spur economic growth by providing tax incentives to invest in facilities and equipment and for taxpayers to save more. (Frederic Mishikin, p. 412).

3. Price stability

One of the policy objectives of monetary policy is to stabilize the price level. Both economists and laymen favor this policy because fluctuations in prices bring uncertainty and instability to the economy. Rising and falling prices are both bad because they bring unnecessary loss to some and undue advantage to others. Again, they are associated with business cycles. So a policy of price stability keeps the value of money stable, eliminates cyclical fluctuations, brings economic stability, helps in reducing inequalities of income and wealth, secures social justice and promotes economic welfare. (Malcolm, Funke, & Kennedy, 1995, p. 06)

4. Balance of Payments:

Thus a balance of payments deficit reflects excessive money supply in the economy. As a result, people exchange their excess money holdings for foreign goods and securities. Under a system of fixed exchange rates, the central bank will have to sell foreign exchange reserves and buy the domestic currency for eliminating excess supply of domestic currency. This is how equilibrium will be restored in the balance of payments.

2-3.Monetary Policy Tools

All central banks have three tools of conventional monetary policy in common:

1- Conventional monetary policy instruments

1-1 Open Market Operations

they all use open market operations. They buy and sell government bonds and other securities from member banks. This action changes the reserve amount the banks have on hand. A higher reserve means banks can lend less. That's a contractionary policy. In the United States, the Fed sells Treasuries to member banks.

1-2 The Reserve Requirement

in which the central banks tell their members how much money they must keep on reserve each night. Not everyone needs all their money each day, so it is safe for the banks to lend most of it out. That way, they have enough cash on hand to meet most demands for redemption. Previously, this reserve requirement has been 10%.

When a central bank wants to restrict liquidity, it raises the reserve requirement. That gives banks less money to lend. When it wants to expand liquidity, it lowers the requirement. That gives members banks more money to lend. Central banks rarely change the reserve requirement because it requires a lot of paperwork for the members.

1-3 The Discount Rate.

That's how much a central bank charges members to borrow funds from its discount window. It raises the discount rate to discourage banks from borrowing. That action reduces liquidity and slows the economy. By lowering the discount rate, it encourages borrowing. That increases liquidity and boosts growth.

2- Unconventional monetary policy instruments

The Great Financial Crisis and its aftermath presented central banks with unprecedented challenges. Policymakers' response included the introduction of new tools. Central banks implemented different combinations of what have been labeled unconventional monetary policy tools (UMPTs):

2-1 Negative Policy Rates

As the macro economy deteriorated, some central banks decided to set negative policy rates, some motivated by the need to avert a deflationary currency appreciation. They found that, overall, this strategy was effective in dealing with ELB events: long-term yields adjusted downwards in line with expectations of future short-term rates, thus providing the desired expansionary stimulus.

Although side effects, such as the compression of bank interest margins, were detected, they have not posed a major problem for banking stability to date because of offsets from other sources of income and the eventual recovery of bank portfolio values, including the declines in non-performing loans. That said, the potential longer-term effects of a prolonged period of negative rates on intermediaries cannot be fully assessed on the basis of current experience.

2-2 Asset purchase programmes (APPs)

The third group of tools consisted of central banks' large-scale purchases of assets other than short-term treasury bills, typically funded by the creation of central bank reserves. Of course, the open market purchase of domestic sovereign debt has long been a hallmark of central banking. But large-scale purchases of longer-term and private sector assets during the GFC to directly influence asset prices were relatively novel and controversial. Purchases of private assets were deemed by some to lie beyond the scope of central banks' mandates and to expose them to inappropriate financial risks. Moreover, critics argued that – like many of the novel Los – APPs represent a form of credit allocation and as such also fall outside the scope of monetary policy. (M Potter,frank smets, 2019, p. 2)

2-3 Forward guidance

Forward guidance aims at providing market participants with information about the intentions of policymakers for the future path of the policy rate. It can come in two forms ,In one version, the central bank aims to clarify how monetary policy will evolve in the future depending on its own expectations for economic activity or inflation. In the alternative and potentially more powerful version, the central bank commits to keeping interest rates low even if economic conditions improve in the future and warrant a monetary tightening. (Giovanni & Damiano, 2018, pp. 149,150).

2-4 Quantitative easing

Quantitative easing involves the large-scale purchase of securities by the central bank. It is generally implemented through the acquisition of long-term government bonds (an asset in the central bank balance sheet) financed by an increase in the reserve accounts that commercial banks hold at the central bank (a

liability for the central bank). The key idea is that, when the policy rate and thus the yield on short-term bonds are at zero, the central bank can still provide monetary stimulus by supporting long-term bond prices and thus lowering long-term yields . (Giovanni & Damiano, 2018, p. 150)

2-4.The Pathways of Monetary Policy

A monetary policy that lowers interest rates and stimulates borrowing is an expansionary monetary policy or loose monetary policy(a). Conversely, a monetary policy that raises interest rates and reduces borrowing in the economy is a contractionary monetary policy or tight monetary policy(b): (Steven A. Greenlaw ;David Shapiro, 2018)

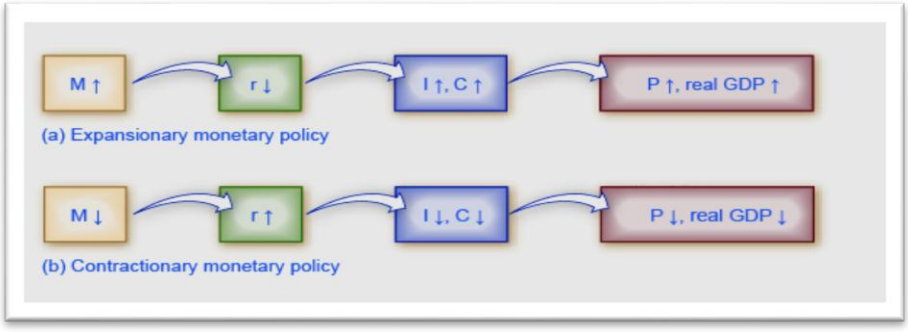
a/ Expansionary monetary policy

the central bank causes the supply of money and loanable funds to increase, which lowers the interest rate, stimulating additional borrowing for investment and consumption, and shifting aggregate demand right. The result is a higher price level and, at least in the short run, higher real GDP.

b/ Contractionary monetary policy

the central bank causes the supply of money and credit in the economy to decrease, which raises the interest rate, discouraging borrowing for investment and consumption, and shifting aggregate demand left. The result is a lower price level and, at least in the short run, lower real GDP.

Figure(1): The pathways of monetary policy



Source: (OER services macroeconomic, 2021)**.**

2-5.The relationship between instrument and target and goals of monetary policy

The central bank cannot achieve these goals directly by its monetary policy instruments, which are variables that it can operate on directly. Among the instruments available to the central bank are open market operations and changes in its discount/bank rate at which it lends to commercial banks and other bodies. These determine the economy's monetary base. In many countries ,the central bank can also change the required reserves (i.e. the minimum reserves the commercial banks must hold against the public's deposits with them), which changes the "monetary base multiplier" (i.e. the money supply per dollar of the monetary base). These measures serve to change the money supply in the economy. Another monetary policy instrument is the overnight loan rate (called the federal funds rate in the USA) in the market for reserves, whose operation induces change in various interest rates in the economy policy. (Jagdish Handa, 2009, p. 306)**.**

Table :monetary policy instrument, targets, goals

Policy instruments	**Objectives targets**	**Intermediate Targets**	**Goals**
Open market Operations Discount Rate Reserve requirements	Short-term interest rates Reserve aggregates (monetary base , reserve , non borrowed reserves, etc.)	Monetary aggregates (M1,M2,etc.) Interest rates(short and long term) Aggregate demand	Low unemployment rate Low inflation rate Financial market stability Exchange rate

Source: (Hamid R.i, Shiv, & Gabor, 2013, p. 10)

Central banks use conventional monetary policy, which focuses on the control of short-term interest rates to stabilize the short-term fluctuations in prices and output in the economy. (Lien Phuong Pham, 2017, p. 5).

Even though conventional monetary policy seems to work in theory, it is limited because of the zero lower bound for nominal interest rates. Even though low interest rates are supposed to stimulate investment, if profit expectations are negative, zero interest rates still fail to stimulate the economy. In other words, while there is a lower zero bound for nominal interest rates, there is no zero bound for profit expectations, which can be negative. (Lien Phuong Pham, 2017, p. 9)

3- Central banks

A central bank is the authority responsible for a country's monetary policy and the only issuer of printed bank notes and minted coins in an economy. The main purpose of a central bank is to manage the stability of its currency by controlling inflation through the supply of money in circulation. For this reason, when a crisis strikes and commercial banks cannot cover the shortage in supply, they turn to the country's central bank for additional funds. The central bank must somehow provide these funds in order to keep the banking system from failing. (Charis Mountis, 2015)

3-1.The development of Central banks functions

Usually we think of central banks as fulfilling is functions implementing monetary policy to achieves economic policy goals , but in many countries, until well into the 20th century, in the absence of a central bank, these were performed by the Treasury or in some cases (Australia, Canada, New Zealand) by a large commercial bank entrusted with the government's tax revenues. (Michael D. Bordo, 2010, p. 206).

During the 1970 s and early 1980s, major industrialized economies experienced sustained periods of high inflation. To explain these periods of inflation, one must account for why central banks allowed them to happen. One influential line of argument pointed to the inflation bias inherent in discretionary monetary policy if the central bank's objective for real output (unemployment) is above (below) the economy's natural equilibrium level or if policymakers simply prefer higher output levels. Under rational expectations, the public anticipates that the central bank will attempt to expand the economy; as a consequence, real output is not systematically affected but average inflation is left inefficiently high. (Carl E. Walsh, 2010, p. 21).

Central banks have evolved for close to four centuries. Their evolution was initially tied up with meeting the fiscal needs of nascent states to finance government expenditures in wars and to market the government's debt. This was certainly true of the Riksbank, originally named the Bank of the Estates of the Realm and created in 1668 and often referred to as the first central bank1, and even the Bank of England created in 1694, in the midst of King William III's war with France (Michael D.Bordo,Pierre L.Siklos, 2017, p. 3).

In the twentieth century central banks took on the role of stabilizing the macroeconomic (i.e., maintaining price stability), stabilizing the business cycle and maintaining full employment. Since the 2007-2008 crisis central banks have also been given responsibility for financial stability, namely defusing financial imbalances and asset price booms before they destabilize the economy. In so doing central bank shave only reprised a variant of a role that explains why many were created in the first place. (Michael D.Bordo,Pierre L.Siklos, 2017, p. 5).

3-2.The European Central Bank (ECB)

The European Central Bank (ECB) is one of the seven institutions of the EU and the central bank for the entire Euro zone. It is one of the most critically important central banks in the world, supervising over 120 central and commercial banks in the member states.

The ECB was created in June 1998, following the Treaty of Amsterdam that amended the Treaty on the European Union. The bank succeeded the European Monetary Institute (EMI) which had been formed at the second stage of the Economic and Monetary Union (EMU) to handle transitional issues of adopting the Euro as the common currency of the European Union. It also prepared for the creation of the European System of Central Banks (ESCB). The ESCB includes the ECB and the national central banks of all the EU member states, including those that have not adopted the Euro. (corporate finance institute, 2021).

3-3.The Federal Reserve (the Fed)

the central bank of the United States, was founded in 1913 by an act of Congress. It should be noted that in the early years of the 20th century, there was strong resistance to the idea of one central bank in the US. However, a series of banking panics culminated in a particularly vicious run on banks in 1907, and

this finally led to a consensus for a central bank. The objective (at that time) was to manage the nation's money supply more effectively and allow it to be more flexible in times of monetary crises. (Farrokh K. Langdana, 2016, p. 272).

The key bodies within the Federal Reserve are the Board of Governors and the Federal Open Market Committee (FOMC). The Board of Governors is based in Washington, D.C., and is composed of seven governors who have non-renewable 14-year terms, staggered by two years. The governors are appointed by the President and confirmed by the Senate. The Chairperson and the Vice Chairperson have renewable 4-year terms, and are both designated by the President and confirmed by the Senate. (Farrokh K. Langdana, 2016, p. 272).

4-The deference between European central bank and federal reserve bank

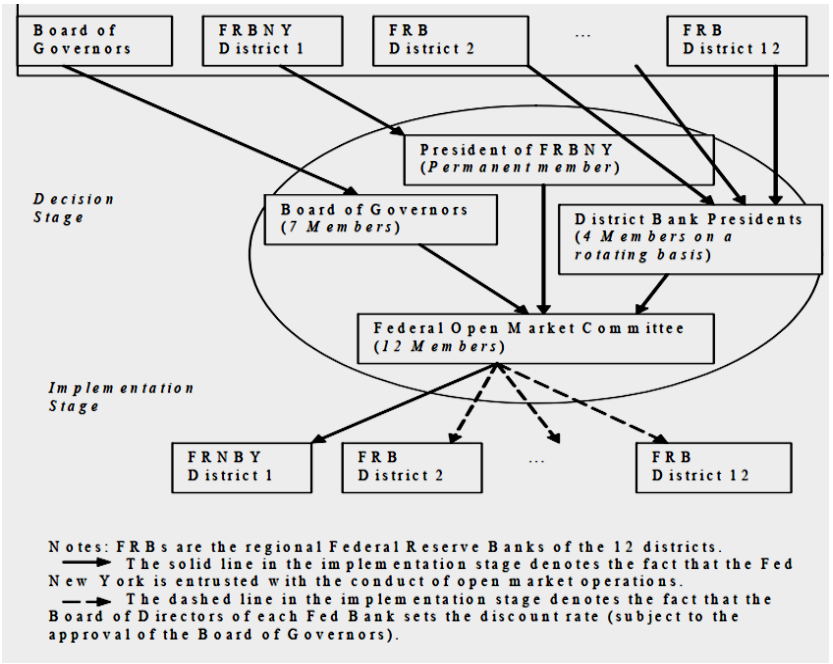
3-1.ECB and FED structure deference

The Euro system (or in other words, the ESCB), which is headed by the ECB, is charged of the monetary policy of the Euro land (The geographical region which uses the single currency, Euro). The Euro system consists of the ECB and the national central banks (NCBs) of the Euro land. One of the governing bodies of the Euro system is the Executive Board which is composed of the president (Mr. Jean Claude Trichet), the vice – president, and four directors of the ECB (European Central Bank, [n.d.]) (elected for 7 year – term). The Executive Board "implements the monetary policy decisions, gives instructions to the NCBs and sets the agenda for the governing council meetings". The Governing Council, which is the superior body of the Euro system, involves Executive Board and governors of 15 NCBs. It is the main decision making body of the Euro system. It "formulates monetary policy, decides on interest rates, reserve requirements and provisions of liquidity in the system". (Gizem Kumas, 2009, p. 6)

Unlike the ECB, the Fed is composed of 3 main bodies. The Board of Governors of the Fed is the decision – making body of the Fed. The Board is an agency of the federal government. It consists of seven members appointed by the President and confirmed by the Senate for 14 year - terms. Basically it "sets reserve requirements and approves discount rates as part of monetary policy, supervises and regulates member banks and bank holding companies, establishes

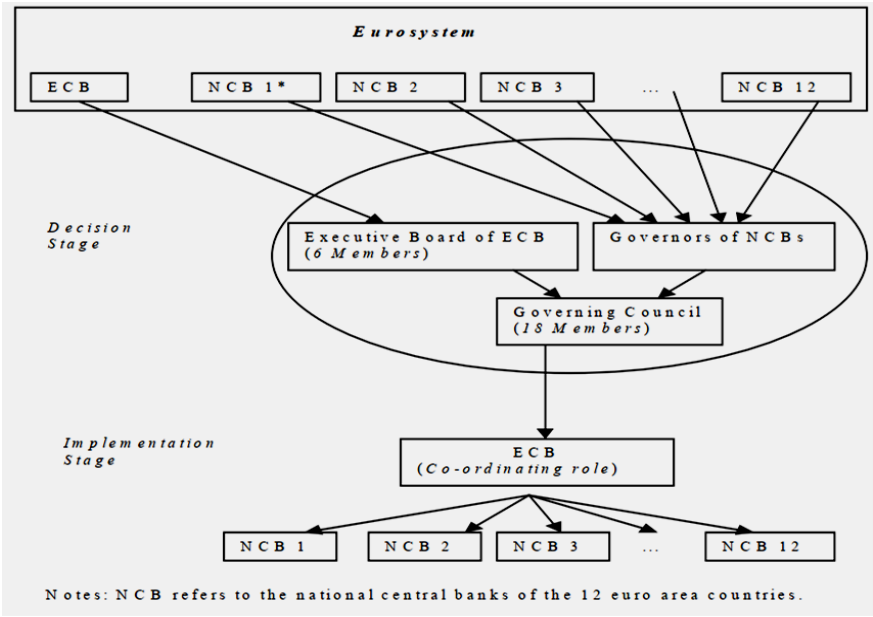
and administers protective regulations in consumer finance, and finally oversees Federal Reserve Banks." (The Federal Reserve, 1984, pp. 5,6)The other body of the Fed is the Federal Open Market Committee (FOMC). Open market operations are the necessary tool for a central bank to implement its monetary policy with controls on money supply by buying and selling government securities or bonds. Therefore the FOMC becomes a very important body, which is responsible for determining what transactions the Fed will conduct in open markets. "These operations affect the amount of the Fed balances available to depository institutions, thereby influencing overall monetary and credit conditions. (The Federal Reserve, (2005), p. 11)" The FOMC is composed of seven members of the Board of Governors and five of the twelve Reserve Bank presidents. The Federal Reserve Bank of New York is the permanent member; on the other hand the others serve on a rotating basis.

Figure(2): European central bank system



Source: (Dieter & Francesco, 2007, p. 10).

Figure(3): Federal reserve system



Source: (Dieter & Francesco, 2007, p. 10.11)

4-1. European central bank (vs) federal reserve bank goals

The primary objective of the Eurosystem is to create price stability. Price stability is defined as a year-on-year increase of the harmonized index of consumer prices (HICP) for the Euro currency area of below, but close to, 2%. In the medium-term an inflation rate close to 2% should be maintained.[12] There are several reasons, why an inflation of zero or close to zero is not desirable. The official values of the HICP tend to be higher as the effective price increases. A reason for that is for example that increases in quality are not observed sufficiently. (Dieter & Francesco, 2007, p. 08.07).

the primary objective of the ESCB shall be to maintain price stability. Without prejudice to the objective of price stability, it shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union (article 2 ECB)

The Fed follows a number of objectives, so that it is not possible to rank these goals after priority as possible with the ECBs objectives. A definition of the objectives can be found in the Federal reserve act since 1977 in paragraph 2A.1:

"The Board of Governors of the Federal Reserve System and the FOMC shall maintain long growth of the monetary and credit aggregates commensurate with the country's long run potential to increase productions, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates". The monetary political tasks are so narrowly defined, but there are several ways, that the statutory objectives can be reached. The Fed can choose one goal arbitrary out of the number of goals. The monetary political ability to react shows that the Fed has an implicit inflation goal. According to Heine and Herr it is about 3%. (Cedric Langin, 2010).

the US have a single sovereign Treasury bond and Treasury bill market because he had a single fiscal policy and a single Treasury issuer for more than two centuries. Therefore it is easier for the FED to perform monetary policy than for the ECB, which has to deal with 17 different Treasury bond and bill markets. (Guillermo de la Dehesa, 2012, p. 6.7).

4-2. Interest vs. Target

There is also a relatively significant difference in the nature of the ECB and Fed key rates In the euro zone, the key rate is the rate applicable to main refinancing operations. In simple terms, this indicates the interest rate at which banks receive liquidity from the ECB, i. e. the rate at which they can borrow. The ECB thus also sets the benchmarks for the development of money market rates. In normal circumstances, the ECB can very precisely direct interest rates at the short end of the money market through the interaction of key rates and tender volumes.

In contrast, the Fed's key rate – the federal funds target rate – is not a borrowing rate. It is just a target set for the overnight rate on the US money market (federal funds effective rate). The Fed strives to achieve this target by managing the banks' reserves through open market transactions (securities purchases /sales and repos) in such a way that the set target rate results from the banks' reserve trade among each other.

4-3. ECB OMO (VS) FED OMO

The tools available to the two central banks are listed in Table 2.26 In its policy meetings, the Federal Reserve sets a target for the federal funds rate, the interest rate banks charge each other to borrow reserves overnight. The Federal Reserve does not directly determine this interest rate but can control it through open market operations, which directly affect bank reserves. The Federal Reserve conducts open market operations by buying or selling U.S. government securities (typically Treasury bills). (Patricia S. Pollard, 2003, pp. 20,21)

Open Market Operations conducted by the ECB are similar in some respects to those of the Federal Reserve. The ECB's most common open market operations, that is, main refinancing operations, are repurchase agreements that have a maturity of two weeks. There are, however, a few key differences between the use of open market operations by the Federal Reserve and the ECB. The ECB conducts main refinancing operations only once per week in contrast to the Fed's daily operations. Secondly, the Federal Reserve deals exclusively in U.S. government securities, whereas the ECB has a broader range of assets (even beyond that of securities issued by member country governments) that it accepts. Another difference is that, in the euro area, open market operations are decentralized; each national central bank executes operations with the financial institutions in its area, although these operations are coordinated by the ECB

4-4. FED VS ECB in decision stage

the ECB decision making in monetary policy is done through a more complex system of governance than that of the FED, ECB monetary policy decisions are made by its Governing Council (GC), which is composed of 23 members: 6 permanent members of the Executive Board, including its President and Vice President and 17 central banks governors of the euro area Member States.

In the US, monetary policy decisions are made by the Federal Open Market Committee (FOMC), which is composed only of 12 members: the 7 members of the Board of Governors of the Federal Reserve System including its Chairman, the President of the Federal Reserve Bank of New York, who is Vice Chairman of the System and 4 of the remaining Reserve Banks.

5- The ECB and the FED response to global financial crisis

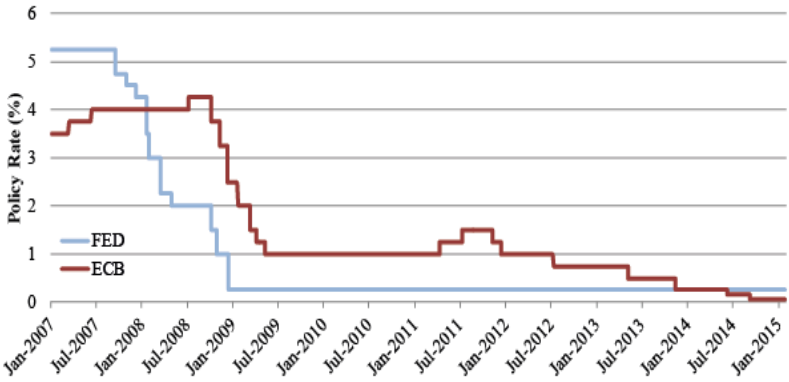
Different economic and financial structures require different crisis responses. Different crises also require different tools and resources. It is crucial, in this sense,

to separate the analysis of the action of the leading central banks into two phases. In phase I, following the burst of the global financial crisis (2007-09), monetary policy responses undertaken by the ECB and the US Federal Reserve (FED).

5-1.The Fed Funds rate VS the main refinancing rate

The US Federal Reserve lowered its policy interest rate (the Fed Funds rate)* from 5.25% in September 2007 to 0-0.25% in December 2008. At that point, the Fed also initiated quantitative easing and began 'forward guidance' making public its intention to keep interest .

Figure(4): Policy rates: The US Federal Reserve and the ECB



Source: (Dae Woong Kang, Nick Ligthart, Ashoka Mody, 2016)

rates low 'for some time'. The Fed's asset purchases included risky securitized mortgage loans, which helped prevent a financial meltdown during the crisis (Mises Institute, 2019). The ECB's first reaction to the crisis in July 2008, and it

* The rate lowered by then Federal Reserve in our example is the short-term rate-the federal funds rate. This is the overnight rate that banks and other depository institutions

charge each other while trading their non-interest bearing reserves. Banks, whose reserves may have fallen below the ratio required by the Fed, borrow at this overnight lending rate from other banks that happen to have excess reserves.

was to *raise* the policy rate (the main refinancing rate[2]). After the Lehman bankruptcy in September 2008, the ECB joined an internationally coordinated rate reduction on 8 October. But then the ECB's slow pace of rate cuts was interrupted by two more hikes-in April and July 2011. The policy rate was brought to near-zero only in November 2013; modest quantitative easing began in September 2014 and was expanded in January 2015. (Dae Woong Kang, Nick Ligthart, Ashoka Mody, 2016).

Tumbling banks in the southern euro states and Ireland inflated government debt, which finally triggered the European sovereign debt crisis from 2012 onwards. Large-scale outright purchases of assets only set in beginning in March 2015, after the first expansion of the ECB balance sheet via (targeted) long-term financing operations had gradually expired. Out of the ECB's latest 2,600 billion euro asset purchases 80% were attributed to government bonds (Fed: 47%), which makes the quantitative easing of the ECB look more like a rescue program for ailing governments than for banks. (Mises Institute, 2019).

5-2.Lending(VS) Buying

The main difference between the Fed and the ECB is that in periods of crisis the Fed buys U.S. government treasury bonds (treasuries), while the ECB lends money to governments and commercial banks in European Member States. The Fed buys treasuries that have varying maturities, and are purchased with an agreement to be repurchased at the end of the maturity period The loans granted by the ECB are generally short term (up to three months) and are secured by

---

[*] ***(MRO)*** is the interest rate banks pay when they borrow money from the ECB for one week. When they do this, they have to provide collateral to guarantee that the money will be paid back. The main refinancing operations rate is one of the three interest rates the ECB sets every six weeks as part of its work to keep prices stable in the euro area.

collateral. When the loan period expires, the banks have to pay the money back to the ECB. (Charis Mountis, 2015).

.In the euro area, the situation was completely different. In the spring of 2010, the crisis took another turn and the ECB response shifted to another level. In May 2010, as markets got into a panic about a possible Greek insolvency, the ECB Council decided to intervene in the sovereign bond markets of troubled countries, through the SMP. Formally the programme did not constitute QE; however, given the huge amount of funds that, at the same time, were supplied to the banking sector, it is impossible to disentangle the sterilization operations. Lastly, in December 2011, the ECB decided to implement a new set of longer-term refinancing operations (LTROs) amounting to around €1,000 billion, aiming to sustain a broken interbank market. (Daniel Gros , Cinzia Alcidi ,Alessandro Giovannini, 2012, p. 6).

5-3.Credit easing vs. Quantitative easing

In a ranking compiled in 2007 among the most transparent central banks in the world, the ECB ranked fifth, after (in descending order) the Reserve Bank of New Zealand, the Swedish Riksbank, the Bank of England, the Czech National Bank and the Bank of Canada. Unfortunately the same transparency has not been assured during the SMP. The ECB has only published the weekly amount of bonds purchased without unveiling any other details, neither about the composition and maturity of the purchases nor the criteria for purchases or the planned amount of the programme. (Daniel Gros , Cinzia Alcidi ,Alessandro Giovannini, 2012, p. 8)

The ECB's lack of transparency appears even greater if compared to the UK and US quantitative easing programmes. When the Bank of England announced its QE, it stated that “the Committee agreed that the Bank should finance £75 billion of asset purchase the majority of the overall purchase by value over the next three months will be of gilts” and added all rules that it would follow in the bond purchase. Similarly, the FED Committee announced “to purchase up to $300 billion of longer-term Treasury securities over the next six months, thus specifying explicitly the type of securities and the length of the programme of QE.

6- Conclusion

This paper discuss an important macroeconomics topic about the directions of monetary policy and central banks behavior in using the available instruments to effect the real economy by targeting important economic variables to preserve them such as inflation rates and of price stability rates .It analyzed the conduct of monetary policy in central bank and the(similarities /differences) among the Euro-system and the Fed system . It finds that, while several of their tasks and their respective legal statuses differ somewhat, there are fewer differences in their institutional structures and monetary frameworks, as well as the use of instruments. Central banking practices around the world have also evolved in the direction of greater independence, transparency and the adoption of monetary policy committees, among other developments. This has contributed to reducing the differences among the three institutions, a trend that can also be observed among other central banks.

There are also some differences in terms of communication strategies, although, overall, the responsiveness of the financial market seems high for both the Euro-system and the Fed (concerning monetary policy inclinations) . However, the Fed does not quantify its definition of price stability, whereas the ECB do, The ECB does not publish the minutes of its Governing Council meetings, unlike the Fed , although it should be noted that the ECB does provide extensive real-time information after interest rate decisions have been taken. All these elements, seem to have little impact on the actual conduct of monetary policy, and might mainly be explained by institutional factors.

7- References:

I. Books:

1) Jagdish Handa. (2009). Monetary Economics (Vol. 2). New York, USA: Library of Congress Cataloging.

2) Carl E. Walsh. (2010). Central Bank Independence. Durlauf S.N., Blume L.E. (eds) Monetary Economics. , 21-26.

3) Farrokh K. Langdana. (2016). Macroeconomic Policy: Demystifying Monetary and Fiscal Policy (Vol. 3rd edition). Springer International Publishing Switzerland.

II. Journal article :

1) The Federal Reserve. (1984). The Federal Reserve System; Purposes and functions). Washington D.C.: Board of Governors of the Federal Reserve System.

2) Malcolm, E, Funke, N., & Kennedy, M. (1995). monetary policy at price stability: a review of some issues. economics department working papers .
3) Patricia S. Pollard. (2003, (january/february). A Look Inside Two Central Banks :The European Central Bank and the Federal Reserve. Retrieved 04 30, 2021, from https://files.stlouisfed.org/files/htdocs/publications/review/03/01/Pollard.pdf.
4) Dieter, G., & Francesco, M. P. (2007, 03). the eurosystem the us federal reserve and the bank of japan similarities and differences. working paper series .
5) Irina A.Telykova. (2008). Monetary Policy Goals. UBC Economic , 12.
6) Gizem Kumas. (2009). a comparison of federal reserve and european central bank. bilkent university.
7) Michael D. Bordo. (2010). monetary policy, history of. monetary economics , 205-215.
8) Cedric Langin. (2010). The European Central Bank and the Federal Reserve System - a general comparison. Retrieved 04 2021, from https://www.grin.com/en/.
9) Daniel Gros , Cinzia Alcidi ,Alessandro Giovannini. (2012, 07 11). Central Banks in Times of Crisis: The FED vs. the ECB. Centre for European Policy Studies , p. 6.
10) Guillermo de la Dehesa. (2012, 6). Monetary Policy Responses to the Crisis by ECB, FED and BoE. the European Parliament's Committee on Economic and monetary affairs , pp. 6-7.
11) Hamid R.i, D., Shiv, D., & Gabor, P. (2013, February). Monetary Transmission Mechanism in the East African Community: An Empirical Investigation. IMF Working paper WP/13/39 .
12) Angelos Delivorias. (2015, February). Monetary policy of the European Central Bank Strategy, conduct and trends. EPRS European Parliamentary Research Service , pp. 1-26.
13) Charis Mountis. (2015, 04 21). the differences between the ecb and the fed in crisis management. Global Banking and Finance Review .
14) Steven A. Greenlaw ;David Shapiro. (2018). Monetary Policy and Economic Outcomes (Vol. 2). Creative Commons Attribution 4.0 International License.
15) article 2 ECB. objectives and tasks of the escb. Art. 2 of the Eurosystems statute. Official Journal of the European Union.

16) Christie Smith , Omar Aziz. (2019, april). Monetary policy objectives – price stability and macro stabilisation. Reserve Bank of New Zealand Bulletin .
17) Corporate Finance Institute. (2021, 04 02). What is the European Central Bank (ECB)? Retrieved 2021, from https://corporatefinanceinstitute.com/.
18) Dae Woong Kang, Nick Ligthart, Ashoka Mody. (2016, 01 19). The ECB and the Fed: A comparative narrative. https://voxeu.org/ .
19) Giovanni Dell'Ariccia, Pau Rabanal,Damiano Sandri. (2018). Unconventional Monetary Policies in the Euro Area, Japan, and the United Kingdom. Journal of Economic Perspectives , pp. 147-172.
20) Lien Phuong Pham. (2017). Was Monetary Policy The Most Effective Tool To Tackle The Great Recession? A Look At Fiscal Policy As An Alternative Solution.
21) M Potter, frank smets. (2019, octobre). Unconventional monetary policy tools:a cross-country analysis.
22) Michael D. Bordo,Pierre L. Siklos. (2017, September). Central Banks: Evolution and Innovation in Historical Perspective. Economics Working Paper , p. 3.

Internet websites:

1) The Federal Reserve. ((2005)). Purposes and functions. Retrieved 04 29, 2021, from http://www.federalreserve.gov/pf/pdf/pf_complete.pdf.
2) Mises Institute. (2019, 03 18). Fed Policy Vs. ECB Policy: A Comparison. Retrieved 04 17, 2021, from https://seekingalpha.com/?source=content_type%3Areact%7Csource%3Asite_navigation
3) European central bank. (2021. 04. 04). https://www.ecb.europa.eu/home/html/index.en.html. Retrieved 2021, from European Central Bank.
4) federal reserve bank. (2021). https://www.federalreserve.gov/default.htm. Retrieved 04 24, 2021, from https://www.federalreserve.gov/monetarypolicy.htm.
5) OER services macroeconomic. (2021). Monetary Policy and Aggregate Demand. Retrieved 12 10, 2021, from courses.lumenlearning: https://courses.lumenlearning.com/suny-macroeconomics