

COMPARISON BETWEEN THE EUROPEAN CENTRAL BANK AS A NEW MONETARY EXPERIMENT AND OTHER MAJOR CENTRAL BANKS - US FEDERAL RESERVE AND BANK OF JAPAN

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Abstract: *Our goal is to make a survey of three major central banks practices and to emphasize both the different national characteristics and the similarities derived from the global changes of financial environment. Using a descriptive methodology, the comparison will concern the central banks' goals, the institutional and organizational structures, strategies and tools of monetary policy.*

Key words: *European Central Bank, Federal Reserve System, Bank of Japan.*

1. Introduction

EMU could be better understood by a systematic comparison of European Central Bank (ECB) with other world's monetary authorities, such as the Federal Reserve System of US (Fed) and the Bank of Japan. Here are some reasons for choosing these two central banks for comparison. In the US case, there are some historical similarities and it is obvious that the US federal banking system is now considerably more under pressure and scrutiny than ever before. The Fed, while an American institution, is indirectly a global policy-maker and therefore its influence is far-reaching. As regards the Bank of Japan, due to its long-time role as the source of the cheapest funding available to financial actors, it has been at

the origin of stock and forex market trends for about a decade, and its interest rate policy is one of the fundamental building blocks of the carry trade with wide-reaching implications for the world economy. Our goal is to make a survey of these central banks practices and to emphasize both the different national characteristics and the similarities derived from the global changes of financial environment.

The modern Fed traces its establishment to President Thomas Woodrow Wilson. He created a team of advisors that crafted the proposal which ultimately became the Federal Reserve Act, passed by Congress in 1913. The legislation of that time imposed the creation of a network of 12 regional reserve banks, headed by seven-member Federal Reserve Board (FRB) –

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made up of public officials appointed by the President. The FRB was constituted in 1914 and included 7 members.

The Bank of Japan was founded under the Bank of Japan Act, promulgated in June 1882. It began to operate in October 1882, as the nation's central bank. In 1942 the Bank was reorganized according to the Bank of Japan Act, which strongly reflects the wartime situation. After World War II the Act of 1942 was amended several timesⁱ. This evolution confirms Broz's (1998) argument according to which financing military endeavors was the main reason for the establishment of the early central banks. In his opinion, all central banks in existence before 1850 were set up in the context of war.

In Japan, the Act of 1942 was completely revised in June 1997 under the new principles of "transparency" and "independence".

If the above mentioned national central banks had more than one century to evolve, the ECB evolved in a fast motion mode. The forerunner of the ECB is the European Monetary Institute (EMI), which started to prepare in 1993, together with the national central banks of the EU, the future European central banking. In only five years, the BCE took over the responsibility for the single monetary policy of the euro-zone. It was established on 1 June 1998.

The euro area came into being when responsibility for monetary policy was transferred from the national central banks of eleven EU Member Statesⁱⁱ to the ECB in January 1999. Greece joined in 2001, Slovenia in 2007, Cyprus and Malta in 2008, Slovakia in 2009, Estonia in 2011 and Latvia in 2014. The creation of the euro area and of the ECB was a milestone in the long and complex process of European integration. The ECB can be considered the most federal institution of the EU.

2. Goals and official mandates

The three policy goals of the Fed are maximum employment, stable prices and moderate long-term interest rates, specified since 1977ⁱⁱⁱ by the Federal Reserve Reform Act. Actually, as completed by the Full Employment and Balanced Growth Act of 1978, there are six goals that the Fed is trying to meet: stability in the financial system (especially as of late), price stability (fighting inflation), full employment, economic growth, interest rate stability and currency stability. Price stability is not given a bigger priority than the other goals, but policy makers must assign at least an implicit ranking to these goals. All these goals are compatible in the long run, but this is not necessarily true at every point in time. This is the reason why the Fed has never quantitatively defined any of the goals.

The Bank of Japan's goal is defined as follows:

"Currency and monetary control by the Bank of Japan shall be aimed at achieving price stability, thereby contributing to the sound development of the national economy"^{iv}.

For the central bank of Japan, the price stability goal is the inflation rate that the Bank judges to be consistent with price stability sustainable in the medium to long term. In early 2006 the Bank of Japan revised its framework by quantifying its price stability objective in the medium and long term, and by setting a yearly revision of a more precise target by the Policy Board members. In its meeting of 14 February 2012, the Policy Board stated that "the price stability goal in the medium to long term is in a positive range of 2 percent or lower in terms of the year-on-year rate of change in the consumer price index (CPI)" and, more specifically, set "a goal at 1 percent for the time being". Prior to this date, the Bank of Japan used a range

of inflation rates that each Policy Board member understood as price stability from a medium to long term viewpoint. At the same meeting, the Policy Board decided that the price stability goal will be reviewed once a year in principle.

Article 2 of the Statute of the European System of Central Banks (ESCB) and of the ECB defines the objective of the ECB and the ESCB as follows:

“...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 Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2 of this Treaty. The ESCB shall act in accordance with the principle of an open market economy with free competition, favoring an efficient allocation of resources and in compliance with the principles set out in Article 4 of this Treaty.”

It is clear that any other objectives are secondary to that of price stability. ECB has also a quantitative definition of the mandate of price stability. ECB's Governing Council announced that price stability is defined as a year-on-year increase in HICP^v for the euro area of below 2%. The Governing Council has also clarified that, in the pursuit of price stability, it aims to maintain inflation rates below, but close to, 2% over the medium term. This orientation contributes to precluding both inflation and deflation and presents some obvious benefits: assures the transparency of monetary policy, provides a clear and measurable yardstick against which the European citizens can hold the ECB accountable and provides guidance to the public for forming expectations of future price developments.

Compared to ECB, the other two central banks have broader mandates (the most encompassing being that of Fed). ECB's most important goal is price stability with a precise quantitative target, unlike the

central banks of the US and Japan (and those of other large economic areas outside Europe) which provided only qualitative definitions of price stability. Only since 2006 the Bank of Japan introduced the quantifying of price stability.

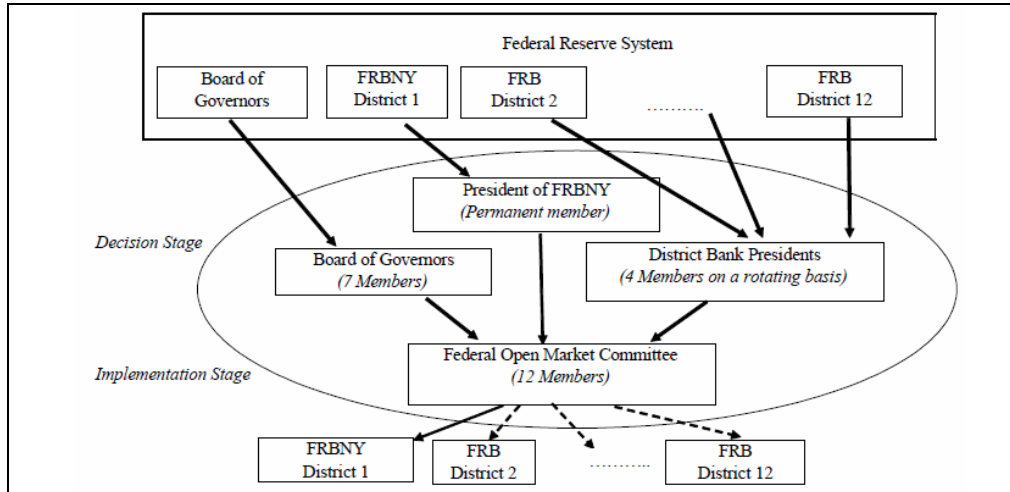
3. Institutional and organizational structures

The institutional arrangements of Fed are presented in Figure 1. The members of the Board of Governors of the Fed are nominated by the President of the US and must be confirmed by the US Senate. The chairman and vice chairman are appointed by the President and confirmed by the Senate from among the members of the Board of Governors, although appointment to these functions may be simultaneous with appointment to the Board. The Federal Reserve Act (Section 10.1) mentions the required qualifications for Board membership:

In selecting the members of the Board, not more than one of whom shall be selected from any one Federal Reserve district, the President shall have due regard to a fair representation of the financial, agricultural, industrial, and commercial interests, and geographical divisions of the country.

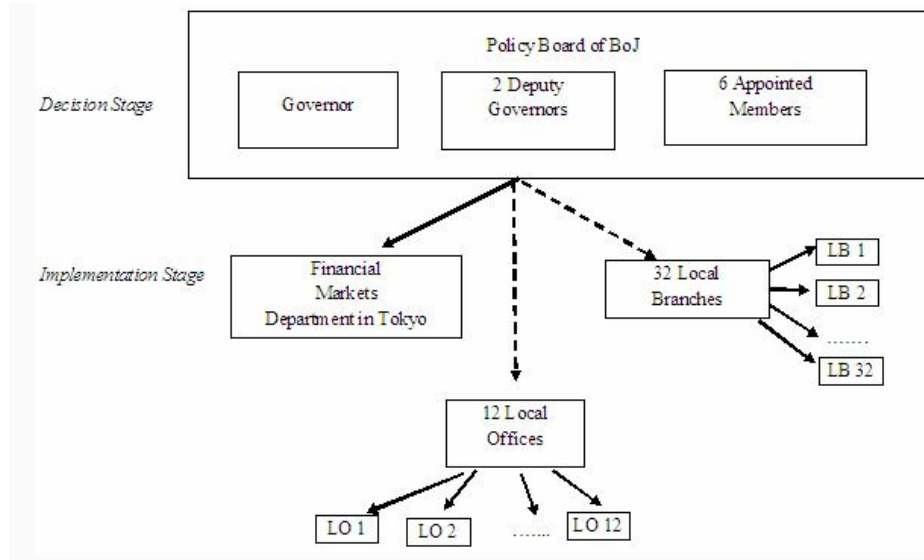
As Figure 2 indicates, the Bank of Japan's decision-making body is the Policy Board. The Policy Board includes 9 members: the Governor, two Deputy Governors and six appointed members. Each member is appointed by the Cabinet for five years and the appointment must be approved by the Diet. The Chairman is elected from the members of the Policy Board. Since September 2006, the Governor of the Bank has also been appointed Chairman of the Policy Board.

Decisions of the Policy Board are made by a majority vote. The Bank of Japan is in charge of 32 domestic local branches (LBs) and 12 local offices (LOs).



Notes: FRBs are the regional Federal Reserve Banks of the 12 districts. The solid arrow in the implementation stage denotes the fact that the FRBNY is entrusted with a conduct of open market operations. The dashed arrow in the implementation stage denotes the fact that the Board of Directors of each Fed bank sets the discount rate (subject to the approval of the Board of Governors).
 Source: Pollard (2003).

Fig. 1. *Organizational Framework of the Federal Reserve System*



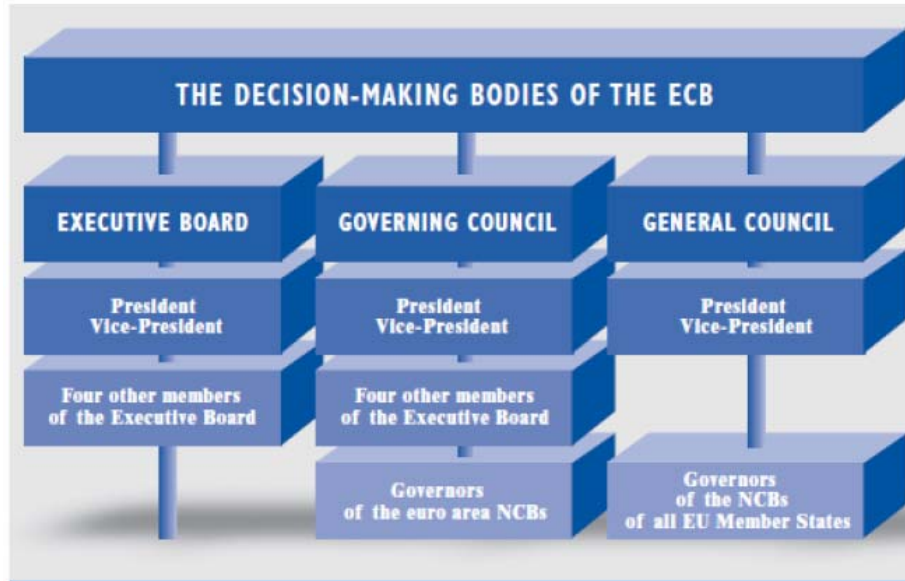
Source: Bank of Japan (2003).

Fig.2. *Organizational Framework of the Bank of Japan*

Figure 3 depicts the organizational framework of the Eurosystem. In order to prepare, conduct and implement the single monetary policy, the institutional structure of the ECB comprises three decision

making bodies: the Governing Council, the Executive Board and the General Council.
 The Governing Council consists of the Executive Board plus the governors of the euro zone national central banks. The

Executive Board includes the President, the Vice President, and four board members. The General Council will exist as long as there are member states that do not yet belong to the euro area.



Source: European Central Bank (2004), p.10.

Fig. 3. *The decision-making bodies of the ECB*

The institutional arrangements of the Eurosystem resemble in some ways those of the Fed, both being federal central bank systems. The Fed became more centralized with the Banking Act of 1935. The ECB has in principle a role similar to that of the Fed's Board of Governors, while the national central banks of the Eurosystem play a role similar to the 12 regional Federal Reserve Banks in the US. However, if in the US there is a stable number of 12 regional banks, the number of national central banks of the euro area varies – having an increasing tendency. The President of the ECB chairs the Governing Council meetings in much the same way as the Chairman of the Fed's Board of Governors chairs meetings of the Federal Open Market Committee (FOMC)

that is responsible for formulating the monetary policy. As regards the differences between Fed and BCE, the main one refers to the voting procedures. In Europe, all the national banks governors have an equal vote in all policy decisions made by the Eurosystem Governing Council. In contrast, participation in FOMC voting is more restricted – all seven members of the Board of Governors of the Fed have a permanent voting right, as does the President of the New York Fed, whereas the Presidents of the Chicago and Cleveland branches alternate annually, and the other nine reserve bank presidents share only four votes on a rotating basis, although they all attend the FOMC meetings and participate in the discussions even when they cannot vote. The voting

system of the Governing Council will of course be different when more countries adopt the euro. The European monetary integration is a much younger process subject to adaptation and new challenges.

The Bank of Japan operates more as a head office than a federal system of central banks. It has also a relatively close relationship with the government (prescribed in Bank of Japan Act), the governor and deputy governors being elected by the Cabinet.

4. Strategies and tools of monetary policy

The strategies of the three central banks derive from the goals above presented. Their main function is to conduct monetary policy to achieve the goals assigned by their respective charters. The tools available to the three banks are quite similar: Federal Reserve – open market operations, discount window and reserve requirements; ECB – open market operations, standing facilities and reserve requirements; and bank of Japan – open market operations (fund-providing and fund-absorbing operations), complementary lending facility and reserve requirements.

The monetary policy operations of the three analyzed central banks, especially their open market operations, have a direct influence on the overnight interest rate applied to the trading of funds between financial institutions for the adjustment of their balances with the central bank. In the US this interest rate is the federal funds rate, in the euro zone it is called EONIA rate (euro overnight index average) and in Japan it is referred to as the call rate.

Fed sets a target for the federal funds rate, which is the interest rate at which banks and other depository institutions lend money to each other, usually on an overnight basis. The federal funds rate is used to control the supply of available

funds and, hence, inflation and other interest rates. It is the primary tool that the Federal Open Market Committee uses to influence interest rates and the economy. Changes in the federal funds rate have far-reaching effects by influencing the borrowing cost of banks in the overnight lending market, and subsequently the returns offered on bank deposit products such as certificates of deposit, saving accounts and money market accounts.

This interest rate is not directly determined by Fed but it can control it using the open market operations, which affect indeed bank reserves. The open market operations are conducted by buying or selling US government securities, typically Treasury bills. Through the open market operations Fed manages to keep the federal funds rate close to its target rate.

The main operating objective of open market operations conducted by the Bank of Japan is to keep the overnight call rate in line with the target set at each Monetary Policy meeting of the Policy Board. In March 2001, the Bank of Japan adopted new procedures for money market operations whereby the balance of current accounts held by financial institutions at the central bank, instead of the overnight rate, is set at the operating target. In either case, the target is announced to the public immediately after each meeting^{vi}.

ECB signals the monetary policy stance through its regular main refinancing operations, executed in the form of either fixed or variable rate tenders. In the former the applied rate signals the monetary policy stance, while in the latter this is effected through a minimum bid rate. Open market operations of the ECB resemble somehow those of the Fed, but there are a few differences. The first one is the fact that ECB conducts the main refinancing operations only once per week, whereas the Fed makes daily operations. The second is that the Fed deals exclusively in

US government securities, while ECB has a larger range of accepted assets. The third difference is that in the euro zone open market operations are decentralized (each national central bank effects operations with the financial institutions in its area, even though these operations are coordinated by the ECB).

Another important tool of the monetary policy regards the system of overnight loans made to financial institutions. These are the discount window loans of the Fed, the standing facilities of the ECB and complementary lending facility of the Bank of Japan.

Borrowing at the Fed's discount window may be used to resolve temporary liquidity needs arising from short-term fluctuations in assets and liabilities. All institutions subject to reserve requirements have access to the discount window. These discount loans are provided by Fed at its own discretion.

The Complementary Lending Facility (CLF) was introduced by the Bank of Japan in March 2001. This tool allows extending loans to counterparties at their request against eligible collateral. In addition to the CLF, the Bank of Japan can also extend loans to counterparties against eligible collateral at its own discretion, if considered necessary, in order to ensure the proper functioning of the financial market.

The two standing facilities provided by the ECB are the marginal lending facility and the deposit facility. The marginal lending facility provides overnight loans to financial institutions. The marginal lending rate is set by the Governing Council (always greater than the main refinancing rate) and banks must have adequate collateral to borrow. The deposit facility allows banks to deposit funds overnight at the national central banks, earning interest on these deposits. The deposit rate is always below the marginal refinancing rate.

In the system of overnight loans made to financial institutions, the main difference between Fed and ECB is that while in the US the borrowing at the discount window is discouraged (even if the discount rate is set below the federal funds rate), in Europe banks are allowed to freely borrow from this facility. Like the ECB, the Bank of Japan does offer facilities for providing and draining reserves, as in 2001 introduced the standby lending facility (CLF), designed to complement its market operations.

In the Eurosystem, the legal framework for the minimum reserve requirements is based on Article 19 of the Statute of the ESCB:

The reserve requirements do not represent an active policy tool, as the Maastricht Treaty gave the Governing Council the right but not the obligation to set reserve requirements.

The situation is similar to that of Fed. The Federal Reserve Act, as amended by the 1980 Depository Institutions Deregulation and Monetary Control Act, requires the Fed to impose minimum reserve requirements on all depository institutions, but Fed may temporarily suspend the reserve requirements.

For the Bank of Japan, as in the case of ECB, reserve requirements can only be satisfied by holding balances at the central bank. For the Fed, in calculating the level of total required balances, allowance must be made for the position that can be satisfied with vault cash^{vii}. Banks within the Federal Reserve System may also establish a required clearing balance, which affects the demand for balances in a way that is virtually identical to reserve requirements (Blenck et al., 2001).

So, all three central banks established reserve requirements on depository institutions, this tool representing an important component of the institutional framework of the banks for driving interbank rates.

5. Conclusions

A summary of the findings of the former sections shows that:

The Eurosystem is more decentralized than the Fed and the Bank of Japan, with more tasks left to the national central banks.

The Fed and the Bank of Japan have broader mandates than the ECB, the most encompassing being that of Fed. ECB's most important goal is the medium-term oriented price stability.

The institutional arrangements of the Eurosystem present some similarities with the Fed, mainly because both are federal central bank systems. The national central banks of the Eurosystem play almost the same role as the 12 regional Federal Reserve Banks of the US. But the number of national central banks of the euro zone is not stable and the voting procedures are different. The Bank of Japan, unlike the Fed and the ECB, operates more as a head of office than a federal system of central banks and has a closer relationship with the government.

Even though there are some differences in the strategies and tools of monetary policy (for example, the ECB conducts the main refinancing operations only once a week, while the Fed makes daily operations), in practice, they fundamentally do not differ very much for the Eurosystem, the Fed and the Bank of Japan. All of them prove operational efficiency, a strong market orientation and simplicity in making decisions. The slight differences between these monetary authorities reflect the various historical circumstances and national characteristics at the time of their creation.

The European monetary integration conducted by the ECB is a much younger process subject to adaptation and new challenges, especially with the gradual extension of the euro area and the associated changes of the economic and financial environment.

Notes

1. The amendments included the establishment of the Policy Board as the Bank's highest decision-making body in June 1949.
2. Germany, France, Italy, Netherlands, Belgium, Luxembourg, Austria, Finland, Spain, Portugal, Ireland.
3. Before this moment, the Federal Reserve Act of 1913 did not include any macroeconomic goals. Then, the Employment Act of 1946 required the federal government to promote maximum employment, production and purchasing power. This Act did not make any reference to the Fed, however it was interpreted as applying to it.
4. According to Bank of Japan Act, see (<http://www.japaneselawtranslation.go.jp/>).
5. Harmonized Index of Consumer Prices
6. Information regarding the Bank of Japan operations is based on Blenck et al. (2001).
7. The Fed allows each bank to satisfy its reserve requirements with currency held on the bank's premises, which is referred to as "vault cash".

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