

## MAIN FINANCIAL REGULATORS: COMPARATIVE ANALYSIS OF FEDERAL RESERVE AND EURO SYSTEM

**Introduction.** Two economical giants exist in the world influencing monetary policy creation. They have powers and established system on regulation of the multiregional economic conditions. Comparing these two systems we can find out and analyze the necessity, benefits or drawbacks of their work. Sometimes we even cannot imagine how global and stable they can be. With the help of systematic comparison of Eurosystem and the US Federal Reserve System we can explore the importance of their existence as a major source of financial resources. The legal status and several of their tasks differ; there are fewer differences in their institutional structures, monetary policy frameworks, as well as the use of policy instruments.

**The Federal Reserve System and ECB.** These systems are unusual mixture of both public and private elements. It can influence on how fast or how slow the economy will grow or contract. Let's consider the structure of the ECB and The Federal Reserve.

On June 1, 1998, the Executive Board of the ECB held its first meeting at its headquarters in Frankfurt, Germany [4]. Six months later the ECB assumed responsibility for monetary policy in the euro area, bringing to fruition a plan for monetary union first outlined nearly two decades earlier. The euro area is unique among common currency areas. 12 sovereign nations have not only adopted a common currency, the euro, but have also created a supranational organization, the ECB; this institution, along with input from the head of each member country's national central bank, sets monetary policy for the euro area. 90 years ago, the Federal Reserve Act created a central bank for the United States consisting of 12 regional (District) Federal Reserve Banks and a seven-member Federal Reserve Board in Washington, D. C. In 1935 the Federal Reserve Board was renamed the Board of Governors of the Federal Reserve System. The European System of Central Banks consists of 15 national central banks and a six-member Executive Board in Frankfurt, Germany. The 15 central banks correspond to the 15 member countries of the European Union. The three central banks whose countries are not members of the euro area participate in few of the activities of the European System of Central Banks. The Eurosystem is the term used to refer to the ECB and the 12 national central banks of the member countries [5]. The 12 Districts of the Federal Reserve System, in contrast to

the national central banks of the Eurosystem, do not correspond to political entities. These 12 Districts are divided along county lines, encompassing not only multiple states, but portions of states. Indeed, in the early years of the Federal Reserve System, some border counties petitioned and were allowed to switch Districts. In the table below we can see the main differences between Federal Reserve and ECB systems.

Based on this table we'll consider strategy of both systems in more detail because it is one of the fundamental differences.

**Monetary Policy.** The main function of both the Federal Reserve and the ECB is to conduct monetary policy to achieve the goals assigned by their respective charters [11]. In the short run, monetary policy influences inflation and the economy-wide demand for goods and services and, therefore, the demand for the employees who produce those goods and services. It occurs primarily through its influence on the financial conditions facing households and firms. The inflationary consequences of rising commodity prices represent an important challenge for monetary policy. Rising commodity prices result in an increase in inflation, but at the same time have negative consequences on economic activity. Their implications for monetary policy are less straightforward than those of demand shocks. For example, a positive demand shock, that increases inflation and output, calls for monetary tightening in order to stabilize both. However, the implications of commodity price shocks are less clear cut. During normal times, the Federal Reserve has primarily influenced overall financial conditions by adjusting the federal funds rate – the rate that banks charge each other for short-term loans [11]. Movements in the federal funds rate are passed on to other short-term interest rates that influence borrowing costs for firms and households. Movements in short-term interest rates also influence long-term interest rates (such as corporate bond rates and residential mortgage rates) because those rates reflect, among other factors, the current and expected future values of short-term rates. In addition, shifts in long-term interest rates affect other asset prices, most notably equity prices and the dollar's exchange rate.

Monetary policy also has an important influence on inflation. When the federal funds rate is reduced, the resulting stronger demand for goods and services tends to push wages and other costs higher, reflecting the greater demand for workers and materials that are necessary for

production [2], [8]. In addition, policy actions can influence expectations about how the economy will perform in the future (Figure 1), including expectations for prices and wages, and those expectations can themselves directly influence current inflation. Monetary policy has an important additional effect on inflation through expectations – the self-fulfilling component of inflation [3]. Many wage and price contracts are agreed to in advance, based on projections of inflation. If policymakers hike interest rates and communicate that further hikes are coming, this may convince the public that policymakers are serious about keeping inflation under control [6]. Long-term contracts will then build in more modest wage and price increases over time, which in turn will keep actual inflation low.

Monetary policymakers and central banks universally recognize that, in the long run, inflation is strictly determined by monetary policy [7]. However, they disagree sharply about the role of monetary aggregates in the conduct of monetary policy.

**Monetary aggregates.** Given that many different financial assets are close substitutes, and that the nature and characteristics of financial assets, transactions and means of payment are changing over time, it is not always clear how money should be defined and which financial assets belong to which definition of money. Central banks usually define and monitor several monetary aggregates. The ECB's definitions of euro area monetary aggregates are based on harmonized definitions of the money-issuing sector and the money-holding sector as well as of

categories of monetary financial institution (MFI) liabilities. The money-issuing sector comprises MFIs resident in the euro area. The money-holding sector includes all non-MFIs resident in the euro area excluding the central government sector [9]. Based on conceptual considerations and empirical studies, and in line with international practice, the Eurosystem has defined a narrow (M1), an "intermediate" (M2) and a broad monetary aggregate (M3). These aggregates differ with regard to the degree of liquidity of the assets and include:

- M1 includes currency, i. e. banknotes and coins, as well as balances that can immediately be converted into currency or used for cashless payments, such as overnight deposits.

- M2 comprises M1 and, in addition, deposits with an agreed maturity of up to two years or redeemable at a period of notice of up to three months. These deposits can be converted into components of narrow money, but some restrictions may apply, such as the need for advance notification, penalties and fees.

- M3 comprises M2 and certain marketable instruments issued by the resident MFI sector [5]. These marketable instruments are repurchase agreements, money market fund shares/units and debt securities with a maturity of up to two years (including money market paper). A high degree of liquidity and price certainty make these instruments close substitutes for deposits. As a result of their inclusion, broad money is less affected by substitution between various liquid asset categories than narrower definitions of money, and is more stable.

Table 1

## Comparative analysis

|                      | <b>ECB</b>   | <b>Fed</b>  |
|----------------------|--|---|
| structure            | Majority of the NCB  | Majority of the Board   |
| objectives           | Price stability  | Full employment, stable prices, moderate interest rates   |
| strategy             | Two-pillar approach<br>Rule-based monetary policy  | Case-by-case<br>Discretionary monetary policy   |
| doctrine             | Long-run neutrality of money   | Affect economic variables   |
| independence of each | High level of independence<br>European institutions have no authority over ECB<br>Lack of transparency | Independent government agency<br>Reports four times a year to Congress<br>President can remove a member |
|                      | <b>Rule based</b><br>= one response to every economic situation  | <b>Discretionary</b><br>= come to a decision case-by-case   |
|                      | +consistency<br>+plausibility<br>+predictable<br>+quick decisions                                      | +flexible<br>+best reaction   |
|                      | <b>ECB &amp; €</b><br>- a new central bank and currency<br>- a heterogeneous area                      | <b>Fed &amp; \$</b><br>- an established central bank and currency<br>- a homogeneous area               |

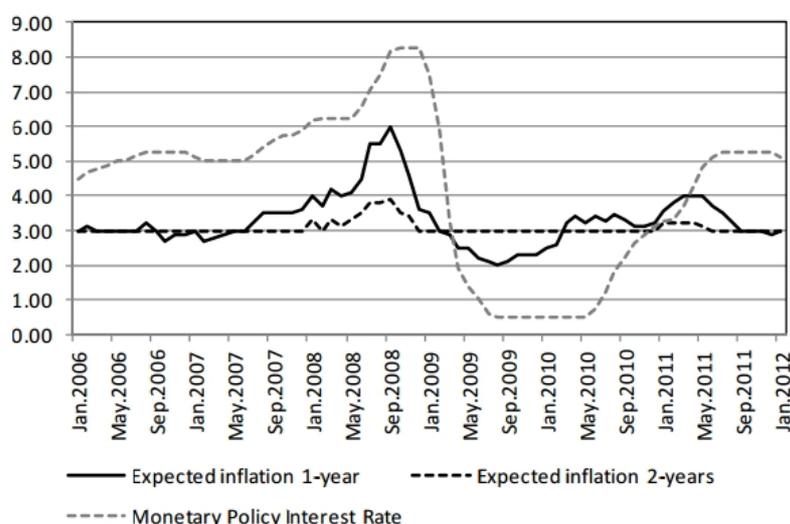


Fig. 1. Inflationary Expectations and Monetary Policy

Holdings by euro area residents of liquid assets denominated in foreign currencies can be close substitutes for euro-denominated assets.

**Effect of Monetary Policy.** Unanticipated changes in monetary policy will produce both price (substitution) and income effects [8]. The sequence of events to occur with regard to the price effect is as follows:

- Real interest rates will be reduced.
- As real interest rates are reduced, domestic financial and capital assets become less attractive as a result of their lower real rates of return. Foreigners will reduce their positions in domestic bonds, real estate, stocks and other assets. The financial account (or balance on capital account) will deteriorate as a result of foreigners holding fewer domestic assets. Domestic investors will be more likely to invest overseas in the pursuit of higher rates of return [3].

- The reduction in domestic investment by foreigners and the country's citizens will decrease the demand for the nation's currency and increase the demand for the currency of foreign countries. The exchange rate of the nation's currency will tend to decline.

- With no government intervention, the financial account and the current account must sum to zero. As the financial account declines, the current account will be expected to improve by an equal amount. In other words, the balance of trade should improve. The country's export will have become relatively cheaper and imports will be relatively more expensive.

The effect of an expansionary monetary policy is to lower the exchange rate, weaken the financial account and strengthen the current account. A restrictive monetary policy would be expected to result in the opposite: a higher exchange rate, a stronger financial account and a weaker current account (a more negative, or a less positive balance of trade) [1]. With a program of expansionary (easy)

monetary policy, the following sequence of events would be expected to occur with regard to the income effect:

- The domestic GDP will rise.
- The rise in domestic GDP will tend to increase the demand for imports. The increase in imports will cause the current account to deteriorate.

- The increase in imports purchased will increase the need to convert domestic to foreign currency. As a result, the exchange rate of the domestic currency will decrease.

- With no government intervention, the financial account must now move toward a surplus as the financial and current account must sum to zero. Due to the increase in imports, foreigners will now have a surplus of the nation's currency. If foreigners do not use that currency to purchase the country's exports (which would improve the current account balance), they will ultimately need to invest that currency in the assets of the domestic country. This explains why countries such as China and Japan invest large sums in assets such as U.S. Treasuries. The holders of the U.S. \$ must put it to work somewhere! Foreign investors are often getting better rates of return than what might be readily apparent because the value of the domestic currency is falling relative to their own currency. In summary, the income effect of expansionary monetary policy tends to lower the domestic currency exchange rate, weaken the current account and work to improve the financial account. A restrictive monetary policy tends to cause the opposite due to the income effect. The domestic currency exchange rate increases, the current account improves and the financial account weakens.

**Conclusion.** The Federal Reserve and the ECB view the role of monetary aggregates in the conduct of policy very differently. For the Fed, the aggregates are just one set of many economic indicators that are monitored for insight into the outlook for economic activity and inflation [10]. For the ECB, the aggregates – M3 in particular –

represent one of two pillars of monetary policy [5]. As such, developments with the money supply carry more weight in policy decisions at the ECB than developments with other indicators of the outlook for economic activity or inflation. This difference in the role assigned to money in monetary policy stems from two related sources. First, as a new central bank, the ECB needed a monetary strategy in place that would give it the inflation fighting credibility of the national central banks it was replacing. In particular, the ECB wanted to inherit the credibility of the German Bundesbank [4]. Although the ECB chose not to target money growth in the way the Bundesbank did, the ECB strategy preserved a special role for money. Second, as an empirical matter, money growth is more highly correlated with inflation in the medium to long run and a better predictor of inflation in the Euro area than in the United States. Going forward, the role of money in monetary policy is likely to be continually examined within both the Federal Reserve and the ECB. At the Fed, Chairman Bernanke has said, "...the Federal Reserve will continue to monitor and analyze the behavior of money. Although a heavy reliance on monetary aggregates as a guide to policy would seem to be unwise in the U. S. context, money growth may still contain important information about future economic developments". Attention to money growth is thus sensible as part of the eclectic modeling and forecasting framework used by the U. S. central bank [10].

At the ECB, policymakers will need to evaluate recent rapid money growth in the context of future inflation developments. A key question is whether the recent acceleration in the decline in M3 velocity is permanent or temporary. If permanent, ECB policymakers may need to reevaluate, and possibly raise, the reference value they assign to M3. If temporary, policymakers will need to determine whether velocity will continue to be affected by temporary fluctuations in M3 that are unpredictable. The emergence of an unstable and unpredictable velocity trend in the Euro area could mean that the ECB would need to move closer to the Federal Reserve in its approach to monetary analysis.

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### **Малишко О. В., Герман К. А. Головні фінансові регулятори: порівняльний аналіз Федеральної Резервної системи та Євросистеми**

Ця стаття містить систематичне порівняння Євросистеми та Федеральної Резервної Системи США як основних економічних регуляторів. Було виконано порівняльний аналіз цих двох систем. Було описано сутність монетарної політики, її ефекти, а також грошові агрегати.

*Ключові слова:* структура монетарної політики, євросистема, федеральна резервна система, інфляція, центральні банки, грошові агрегати.

### **Малышко А. В., Герман Е. А. Главные финансовые регуляторы: сравнительный анализ Федеральной Резервной системы и Евросистемы**

Эта статья содержит систематическое сравнение Евросистемы и Федеральная Резервной Системы США как основных экономических регуляторов. Был выполнен сравнительный анализ этих двух систем. Были описаны сущность монетарной политики, её эффекты, а также денежные агрегаты.

*Ключевые слова:* структура монетарной политики, євросистема, федеральна резервна система, інфляція, центральні банки, грошові агрегати.

### **Malyshko O. V., German K. A. Main Financial Regulators: Comparative Analysis of Federal Reserve and Euro System**

This article contains a systematic comparison of the Eurosystem and the US Federal Reserve System as the major economic regulators. Comparative analysis of these two systems was performed. Monetary policy essence and its effects were described as well as monetary aggregates.

*Key words:* monetary policy frameworks, eurosystem, federal reserve system, inflation, central banks, monetary aggregates.

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