# CHANGES IN THE EUROPEAN CENTRAL BANK (ECB) APPROACHES IN MATTERS OF MONETARY POLICY AFTER THE OUTBREAK OF THE INTERNATIONAL FINANCIAL CRISIS

**SBÂRCEA Ioana**
*Lucian Blaga University of Sibiu, Romania*

***Abstract:***
*The problem of monetary policy is a current one, given the fact that now, through this component of the economic policy, the monetary authority of each state tries to solve the problems considered essential for each economy separately. Through this article I have tried to capture the major changes regarding the implementation of the ECB's monetary policy before and after the outbreak of the international financial crisis. Following the analysis I have shown that the monetary policy of the ECB is not a constant one in its actions and instruments used but it is adapted to a conjuncture context through which the European economy is passing through. Therefore, in this paper I have broadly shown the instruments used by the ECB for the monetary policy since the year 2005 up to now. I have thus noticed that the optic of the monetary policy has changed after the outbreak of the crisis, trying to contribute to the economic recovery by boosting the lending. Given the highly complex context through which the economy of the Euro area is going through today, challenges for the ECB for the monetary policy are increasing.*

***Key words:*** *monetary policy, monetary policy interest rate, credit, financial crisis*

## 1. Introduction

The monetary policy in an economy has a very important role because, through it, the monetary authority in each country directs its efforts to resolve the problems faced by each economy using the monetary means at its disposal. In the first part of this article, I will briefly address some theoretical elements of the monetary policy, then I will address the main elements of the ECB's monetary policy before the outbreak of the international financial crisis and thereafter.

## 2. General aspects of the monetary policy

**The monetary policy** *is an essential component of the economic policy and consists of all the actions that can be performed by the monetary authority over certain financial assets in order to correct or redirect the short or medium term economy.* Through the specific measures that they promote, the monetary authorities try to regulate the demand level aggregated from the economy, influencing liquidity, the granting conditions and the credit availability in the economy (Turliuc, 2002).

***The monetary policy*** can be defined as the interventions assembly of the Central Bank or of the monetary authorities that is carried out on the liquidity of the economy, with the purpose to contribute, by using the monetary techniques and tools, to achieving the objectives of the economic policy. Of the most used objectives which the monetary policy is proposing, we can find: (Roman, 2009):

- ensuring a balanced economic growth;
- full labor employment;
- establishing prices.
- ensuring the equilibrium of the external payments balance.

Choosing an objective of monetary policy by the central authority and the instruments that are going to be used for achieving that objective is done by focusing towards a particular monetary policy strategy.

Through ***monetary policy strategy*** we understand a set of criteria and procedures underlying the adoption, implementation and communication of the decisions of the monetary authority in order to achieve the fundamental objective of the monetary policy (Roman, 2009). The monetary policy strategies are divided into indirect strategies that refer to targeting the exchange rate, the interest rate, and the monetary aggregates and into direct monetary policy strategies which we encounter more often in the current period and that are mainly based on targeting the inflation rate. Through this strategy, the monetary authority aims to achieve a certain level of inflation in a given time horizon and uses the monetary policy tools to achieve that targeted level. Besides, the monetary authority must ensure transparency in all steps taken and must also take responsibility in the event that the inflation targeted objective has not been achieved. These aspects make this strategy an easy one to understand not only by the actors involved in running it, but also by the general public. Of course, the inflation targeting strategy presents some disadvantages related to the possibility of reducing the economical growth rate when the central bank promotes a restrictive monetary policy aimed at gaining credibility by showing its strong commitment towards price establishment and towards the fluctuations that may arise as a result of a high degree of openness to the emerging economies, fluctuations that can hinder achieving the proposed objective.

***The monetary policy instruments*** represent the specific means through which the monetary authority acts in order to achieve its primary objective (Bîrle, 2011). Through these instruments the influence of the money mass and of the interest rate are being aimed.

The monetary policy instruments are divided into two categories (Duduială, 2009):

• **the indirect instruments** are used by the central bank in its relationships with the other banks and with the non-financial agents. These include instruments that allow control over the cost and over the central currency amount. Within these tools are included:

  • the market operations (open market) that mainly consists of: cash injection repo operations, reverse repo operations to absorb liquidity, credit granting, deposit attraction, issuing deposit certificates, foreign exchange swaps, the monetary authority uses a certain type of instrument according to the liquidity absorption or injection purpose which it proposes;
  • the minimum mandatory reserves (MMR);
  • the permanent facilities granted to the credit institutions.

• **the direct instruments** are those instruments of monetary policy through which the central bank exerts a direct control over the interest rates and over the exchange rate (price control) or over the size of the deposits and loans (quantitative control).

Currently the indirect monetary policy instruments are more commonly used. They are considered to be more complex instruments of monetary policy, which is why they produce the desired effects in an economy characterized by a mature banking system. I am mainly referring here to the open-market operations that can be performed only if there is interest from the financial institutions that participate at the monetary policy operations. In contrast, the minimum mandatory reserves have a coercive character, the central bank managing to achieve a change in the money mass in a relatively short time simply by changing their rate.

## 3. Characteristics of the monetary policy of the ECB

From 1 January 1999, the European Central Bank (ECB) is responsible for developing and implementing the monetary policy in the euro area - the world's largest economy after the United States.

Currently, among the main tasks of the ECB defining the policies of the Eurosystem ("The European Central Bank, the Eurosystem, the European System of the Central Banks", 2011) is included. Thus, the ECB Governing Council is responsible for the monetary policy for the unique currency. This involves, among other things, defining price stability, the analysis method of inflationary risks, etc.

Although the Maastricht Treaty clearly states that the primary objective of the ECB is to maintain price stability, it does not provide a precise definition of the "price stability". Thus, in October 1998, the Governing Council of the ECB published a quantitative definition of the price stability as it follows "an annual increase of less than 2% of the harmonized index of the consumer prices (HICP) for the euro area" (www.ecb.int).

In order to achieve ***price stability***, the ECB has to influence the money market conditions and therefore the short-term interest rates. ECB adopted a strategy that ensures the adoption of the monetary policy decisions in a coherent and systematic manner. Coherence contributes to stabilizing the inflation expectations and enhances the credibility of the ECB.

In order to ensure price stability, the ECB aims to keep the inflation rate at a low level, but close to 2% over medium term.

The monetary policy strategy is a coherent and structured description of the way which the monetary policy decisions are adopted in order to achieve the objective of the central bank.

***The ECB's main task*** as coordinator of the Eurosystem is to implement the monetary policy in the euro area, aiming to maintain price stability (www.ecb.int). Through the short-term interest rates, the monetary policy influences the economy and ultimately the level of the prices.

In order to ensure an optimal application of the monetary policy, the ECB adopted a specific approach to determine the nature and extent of the risks over the price stability in the euro area. In this respect, the ECB should conduct a thorough analysis of the monetary and economic developments. To ensure that all relevant information is taken into account, the ECB has created the so-called "***two-pillar approach".***

The ECB's approach towards organizing, evaluating and collating the relevant information for assessing the risks to price stability is based on two complementary analytical perspectives, referred to as the two "pillars":

• the economic analysis and
• the monetary analysis.

The two-pillar approach was designed to ensure that it is not omitted any relevant information when assessing the risks to price stability and that an adequate attention is granted to the different perspectives and to corroborating information in order to formulate a general conclusion about these risks.

This approach makes the principle of the diversified analysis known to the public and ensures the existence of a solid decision making process, based on different analytical perspectives.

***The economic analysis*** aims at evaluating the factors that determine the evolution of the prices on a short and medium term, focusing on the real activity and on the financial conditions in the economy. This analysis takes into consideration the fact that the evolutions of the prices on a short and medium term are largely influenced by the interaction between the supply and demand in the goods, services and production factors market (www.ecb.int).

The economic analysis focuses on the real activity and on the financial conditions in the economy. It takes into account that the short and medium term evolutions of the prices are heavily influenced by the ***interaction between the supply and the demand*** in the goods, services and factors of production market.

***The monetary analysis*** focuses on a long-term horizon, exploiting the long-term relationship between money and prices. The monetary analysis mainly serves as a collaboration tool, from the perspective of a medium and long term time horizon, from the monetary policy signals received from the economic analysis on short and medium term.

In the range of key indicators that are periodically monitored and reviewed, the ECB attaches a great importance to monetary aggregates. ***The monetary analysis*** is based on the fact that inflation and monetary growth are closely linked in the medium and long term, thereby sustaining the medium-term orientation of the ECB's monetary policy strategy. The analysis of credit and of liquidity conditions allows the ECB to look beyond the temporary effects of the various economic shocks.

Starting from the experiences of other central banks, **the European Central Bank** has defined three monetary aggregates (M1, M2 and M3), depending on the liquidity degree of the assets in order to properly manage the money mass, as it follows:

• **M1** – the money supply in a narrow meaning – contains cash that is in circulation and some amounts that are located in accounts and that may be used immediately. These assets are net amounts of money, with the highest liquidity and can be used immediately as an exchange mean, at no cost;

• **M2** – the money mass itself – contains in addition to M1 deposits with a maturity of less than 2 years and also redeemable deposits with prior notice up to 3 months. These are highly safety assets but can not be obtained immediately. In order to be converted into components of M1 an advance notification submission and the payment of some fees or charges are required;

• **M3** – the monetary mass in a broad sense - includes in addition to M2 highly liquidity degree instruments such as: the repurchase agreements, portions of shares of the money market fund and debt instruments with maturities of less than 2 years.

It should be noted that the ECB has proposed a **secondary objective** regarding the growth of the level of the M3 money mass in broad sense up to 4.5%. The reference value of the M3 monetary aggregate is an important monetary strategy element. In terms of achieving this objective the annual growth rate of the M3 aggregate of 1.5% in 2011 was achieved (Table no. 1).

**Table no. 1** – The evolution of the monetary aggregates during 2005-2011

| **Year** | **M 1** | **M 2** | **M 3** |
|---|---|---|---|
| **2005** | 10,4% | 7,9% | 7,4% |
| **2006** | 8,6% | 8,7% | 8,4% |
| **2007** | 6,5% | 9,9% | 11,2% |
| **2008** | 2,4% | 9,6% | 9,7% |
| **2009** | 9,5% | 4,8% | 3,3% |
| **2010** | 8,5% | 1,8% | 0,5% |
| **2011** | 2,0% | 2,3% | 2,2% |

**Source:** My own processing after the ECB monthly bulletins - statistical section.

Based on the table above we can see that the growth level of the M3 money mass in broad sense of maximum 4.5% is exceeded from the year 2005 to 2008 and starting with 2009, M3 is located below the maximum level proposed as a result of the monetary policy measures applied in the context of the international financial crisis.
In 2005-2008 increases in the average level of the M3 aggregate were recorded from 7.4% to 9.7%, mainly due to the economic boom on the financial markets, but starting with august 2007 when the global financial crisis began to put its imprint on the economy, the monetary mass started to decrease since 2008.

The European Central Bank defines price stability in the euro area as an inferior annual increase of the HICP (Harmonized Index of the Consumer Prices), but close to the 2% level. The term "harmonized" indicates that the EU Member States apply the same methodology, offering the possibility to compare the data from different countries. Before the euro became common currency, each country measured inflation based on the national specific procedures and methods. With the introduction of the euro, the need to measure inflation across the entire euro zone arose, without variations or overlaps, through methods that would enable comparisons between countries; this was possible because of the HICP because of a set of rules mandatory from a legal point of view. In table no. 2 I captured the evolution of the HICP during 2005-2011.

**Table no. 2** – The evolution of the HICP during 2005-2011

| Year | HICP |
|---|---|
| **2005** | **2,2%** |
| **2006** | **2,2%** |
| **2007** | **2,1%** |
| **2008** | **3,3%** |
| **2009** | **0,3%** |
| **2010** | **1,6%** |
| **2011** | **2,7%** |

**Source:** My own processing after the ECB monthly bulletins - statistical section.

Regarding the price development over the period 2005-2006, the annual average rate of the HICP inflation was situated at the same 2.2% level. The inflation rate fluctuated during the year, being strongly influenced by the oil price variations and by the evolution of energy prices.

The overall inflation measured through the HICP was, on average, at 2.1% in 2007 due to lower energy prices in the fourth quarter 2006. In terms of prices, the annual inflation rate of the HICP 2008 recorded levels above 3% at the beginning of this year. The substantial increases in oil and food prices, together with the unfavorable base effects related to energy prices were the main reasons for this evolution.

The inflationary pressures were low in 2009. The average annual inflation rate was 0.3% in 2009, the lowest level since the introduction of the euro in January 1999, following the record level of 3.3% in 2008. The annual HICP inflation fell from 1.1% in January to 0.7% in July and 0.9% in December. The wide variation of the annual HICP inflation rate in 2009 was mainly generated by the evolution of the commodity prices, the energy prices particularly, reversing the rise seen in 2008 and the corresponding base effects. The sharp rise in the commodity prices was the main factor that fueled the HICP inflation in 2010. The prices of the commodity materials and particularly the energy and food prices increased from the low levels recorded in 2009, so that the HICP inflation followed an upward trend despite the inhibitory effects exerted by the wage's moderate dynamic and by the still low levels of the activity.

The HICP remained above 2% in 2011 due to the higher oil prices, the continued growth in food prices, particularly the ones of processed foods, which maintained a steady upward trajectory during 2011. Instead, the prices of the unprocessed foods have registered a downward trend in 2011, in the context of a monthly volatility.

In conclusion we can see that in the period 2005-2011 only in the years 2005, 2006, 2007, 2010 and 2011 the inflation rate was maintained at a level close to 2%.

To guide the short term interest rates, the ECB has a ***set of monetary policy instruments*** ("The European Central Bank, the Eurosystem, the European System of Central Banks" (Edition 2011) as follows:

***1. Monetary market operations:***

The monetary market operations are initiated by the ECB, this being the one that sets the instrument that is going to be used and also the terms and the conditions under which such operations are developed ( The Official Journal of the European Union, 14.12.2011). The monetary market operations represent the most important instrument because they contribute to:

• orienting the interest rates;
• managing the liquidity situation in the money market and
• signaling the orientation of the monetary policy.

The monetary market operations can be classified in the next four categories:

• ***main refinancing operations*** which are reverse and regular transactions destined to provide liquidity, performed each week and normally having the maturity of one week. The operational characteristics of these open market operations are:

- are liquidity-providing reverse operations;
- are performed each week;
- generally have their maturity of one week;
- are made in a decentralized manner by the National Central Banks;
- are made through standard tenders;

• ***long-term refinancing operations***, which are liquidity-providing reverse transactions made with a monthly frequency and normally having a maturity of three months. The operational characteristics of these open market operations are:

- are liquidity-providing reverse operations;
- are performed each month;
- generally have a maturity of three months;
- are made in a decentralized manner by the NCB;
- are made through standard tenders etc.

• ***fine adjustment operations*** that are performed ad-hoc, in order to manage the liquidity situation on the monetary market and to orient the interest rates, in particular to mitigate the effects on interest rates caused by unexpected liquidity fluctuations in the market. The operational characteristics of these open market operations are:

- may take the form of provision or absorption liquidity operations;
- their frequency is not standardized;
- their maturity is not standardized;
- these operations in the form of reverse liquidity providing transactions are made through quick tenders;
- these operations in the form of reverse liquidity absorption transactions are made through some bilateral procedures.

• ***structural operations,*** executed whenever the ECB considers adjusting the liquidity structural position of the Eurosystem towards the financial sector (regular or occasional), for example, the liquidity volume on the long-term market. These can be made via some reverse operations, some simple operations or by issuing debt certificates by the ECB. The operational characteristics of these monetary market operations are:

- are liquidity providing operations;
- their frequency may be regular or irregular;
- their maturity is not standardized;
- are made through standard tenders;
- are made in a decentralized manner by the NCBs etc.

***2. Standing facilities***

The ECB also offers standing facilities that have the purpose to provide and absorb overnight liquidity, to signal the general orientation of the monetary policy and that limit the overnight market interest rates. The related interest rates of these facilities normally provide an upper and a lower limit for the overnight interest rate in the monetary market. Two permanent facilities are available:

• ***the marginal crediting facility,*** which allows the counterparties (meaning the financial institutions such as banks) to obtain overnight liquidity from the national central banks in the exchange of some eligible assets and

• ***the deposit facility***, which can be used by counterparties to make overnight deposits to the national central banks.

***3. Minimum reserves***

The ECB requires that the credit institutions hold ***minimum reserves*** in the accounts opened at the national central banks. Each credit institution is obliged to maintain a certain percentage of their customer deposits (as well as from other bank liabilities), calculated as medium level during an application period of the minimum mandatory reserves of about a month in a deposit account opened at the relevant national central bank (the Official Journal of the European Union, 14.12.2011).

***The objective of the minimum reserves*** is to stabilize the interest rates on the monetary market and to create (or enlarge) a structural liquidity shortage. The obligation of establishing the minimum mandatory reserves for each institution is determined in relation to the elements from its balance sheet.

The monetary policy operations conducted by the ECB are based on their collateralization with financial eligible assets for granting or trading. For conducting the operations two categories of eligible assets are allowed:

• the first category includes negotiable debt instruments (especially deposit certificates issued by the ECB) and that must meet some uniform eligibility criteria established for the euro area by the ECB;

• the second category includes negotiable or non-negotiable debt instruments and other assets (respectively shares traded on regulated markets) and for which the eligibility criteria are established by the national central banks, with the ECB approval.

The eligible participants for the monetary policy operations must respond to some eligibility criteria, in order to allow access and an equal treatment for all the credit institutions in the euro area with the fulfillment of the prudential and operational requirements. The participating institutions must fulfill all of the operational criteria specified in the contracts or in the commitments that are applicable by the national central banks or by the ECB with the purpose to ensure an effective management of the policy operations. The credit institutions that meet these criteria can therefore:

- recourse to the standing facilities;
- participate to the open market operations, based on the standard tenders.

The credit institutions can appeal to standing facilities or to open market operations based on standard tenders only through the national central banks from the member states where they are located. If an institution (branch or parent company) operates in more than one member state, each point can resort to such operations through the national central banks from the member state in which it is located, although auctions can be presented only by one side (or by the parent company or by a designated branch) in each member state.

It is therefore noted that the monetary policy instruments play an important role in achieving the main objective of the ECB's monetary policy. The transmission mechanism of the ECB monetary policy represent the total channels through which the

central bank, using a varied set of monetary policy instruments can influence the aggregate demand and price dynamics in the economy.
The transmission mechanism of the monetary policy of the ECB and the transmission channels used by this mechanism are: the channel of the interest rates practiced by the financial institutions, the credit channel, the exchange rate channel, the wealth and balance sheet effects channel, the economic agents' inflation expectations channel. Of these, the most commonly used channel for the transmission of the monetary policy mechanism is the interest’s rate channel.

## 4. The ECB’s approach on the monetary policy before the outbreak of the crisis

I further showed, based on the ***annual reports*** the evolution of the monetary policy before the outbreak of the international financial crisis, taking into account the evolution of the monetary policy interest rate, the main transmission instrument of the ECB strategy in the market, in the interior of the corridor formed by the interest rates on the deposit and lending facility (table no. 3):

**Table no. 3** – The evolution of the main interest rates of the ECB in the period 2005-2008

| **Period** | **The interest rate at the deposit facility** | **The monetary policy interest rate** | **The interest rate at the marginal lending facility** |
|---|---|---|---|
| December 2005 | 1.25% | 2.25% | 3.25% |
| December 2006 | 2.50% | 3.50% | 4.50% |
| December 2007 | 3% | 4% | 5% |
| December 2008 | 2% | 2.50% | 3% |

**Source:** My own processing after the ECB monthly bulletins 2005-2008, statistical section.

Following the analyzed and interpreted reports in the above table over the period 2005-2008 we can notice an ascendant trend of the monetary policy interest rate over the period 2005-2007 after which it decreased sharply starting with 2008. The upward trend manifested at the beginning of the analyzed period is characteristic of an economy which is faced with the problem of a high inflation and struggles against it using this mechanism meant to reduce the demand for loans and thus the money supply in circulation. We can also observe the classification of the monetary policy interest rate in the corridor created by the two interests, having as effect highlighting the importance of this rate as the main transmission channel of the monetary policy used by the ECB.

Regarding the mandatory minimum reserves system, since the beginning of its activity, the ECB has set a rate of 2% reserve ratio. The fact that the ECB did not intervene on the level of this indicator shows that it has not considered it as being a very important leverage in controlling liquidity on the market, and was more focused on the role of the mandatory minimum reserves to ensure minimum liquidity in the banking sector. The ECB used as primary means for implementing monetary policy the open market operations and the monetary policy rate adjustment.

## 5. Changes in the ECB monetary policy elements in the context of the international financial crisis

Because of the financial crisis that was triggered internationally, there have been made many changes in the ECB's monetary policy elements, which are determined by certain factors that had strong influences on both the reference interest rate, on the types of instruments used and on the ECB's mandatory minimum reserves. In this subchapter I wanted to highlight, based on the ***annual reports,*** the evolution of the monetary policy in the background of the international financial crisis, taking into consideration the evolution of the monetary policy interest rate, the main instrument of transmission of the ECB on the market strategy, within the corridor formed by the interest rates on the deposit and lending facility. All these things are shown in Table no. 4 as follows:

**Table no. 4** – The evolution of the main interest rates of the ECB in the period 2008-July 2012

| Period | The interest rate at the deposit facility | The monetary policy interest rate | The interest rate at the marginal lending facility |
|---|---|---|---|
| December 2008 | **2%** | **2,5%** | **3%** |
| December 2009 | **0,25%** | **1%** | **1,75%** |
| December 2010 | **0,25%** | **1%** | **1,75%** |
| December 2011 | **0,25%** | **1%** | **1,75%** |
| July 2012 | **0%** | **0,75%** | **1,50%** |

**Source:** My own processing after the ECB monthly bulletins 2008-2012, statistical section.

Based on the analyzed table, we can see that unlike the period 2005-2008, after the year 2008, both the monetary policy interest rate and the deposit and credit facility interest rate are dropping, which highlights the fact that the ECB, in the context of the crisis has sought to stimulate credit lending, increasing liquidity in the market, both actions are necessary for recovering the economy in the euro area. The European Central Bank maintained the monetary policy interest rate at the historical low level of 1% for 2 consecutive years, 2010 and 2011, so that in 2012 to reduce the level up to the minimum historical level of 0.75% in an attempt to provide the liquidity level for the banks in the context of a weaker economic recovery than investors had hoped for.

We can also notice the classification of the monetary policy interest rate in the corridor created by the two rates on the standing facilities, which highlights the importance of this rate as the main channel of transmission of the monetary policy used by the ECB.

Regarding the evolution of the minimum mandatory reserves, analyzing the current level, I have noticed that the international financial crisis has left its mark over this instrument used by the ECB. Thus, if for 11 years, the level of the reserves was maintained at 2% from the value of the liabilities of the credit institutions, as of January 2012, the rate of the minimum reserve ratio was reduced up to 1%. The objective of this reduction falls within the general objectives of the ECB in a crisis context, namely facilitating the access to resources for banks and their customers and increasing the crediting activity in order to stimulate the economy for it to overcome the crisis period. Under these conditions, the ***objective of inflation targeting*** has become a secondary one, the primary one being overcoming the crisis.

Regarding the open-market operations offered by the ECB to the Eurosystem, following the performed analysis for the period 2005 - 2011 (main refinancing operations, longer-term refinancing operations, other auction operations and deposits collection) I have noticed that the ECB frequently uses these operations. Thus, in most cases the amount awarded is equal to the amount offered, this being due to the fact that commercial banks respond to the tenders offered by the ECB, and use less the instruments such as the minimum mandatory reserves.

## 6. Conclusions

In conclusion, I can say that the tasks, the strategy and the monetary policy instruments used by the ECB help to achieve its objective, namely ***ensuring and maintaining price stability***. Also, following the performed analysis I showed that the ECB's monetary policy approaches before and after the onset of the international financial crisis has seen a number of changes in the monetary policy elements. Therefore adaptations of the instruments used by the ECB are observed in the international financial context. Thus in the first analyzed period, before the outbreak of the crisis, the ECB was concerned with maintaining under control the money mass and the market liquidity. Unlike this approach, after 2008, the objective of price stability has become a secondary one, the priority being the incentive measures of the crediting and of the liquidity increase in the banking sector and ultimately in the economy.

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