Monetary policy of the European Central Bank

Strategy, conduct and trends
This publication describes the actors, strategy, operational framework and conduct of the monetary policy of the European Central Bank (ECB). In this context, it presents the 'standard' measures in operation since 1999, as well as the main 'non-standard' measures introduced during the global financial crisis and the European sovereign debt crisis. Finally, the analysis aims to describe the influence of current economic trends on monetary policy and explain the most recent measures that have been taken by the ECB.

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EXECUTIVE SUMMARY

According to Article 127(1) of the Treaty on the Functioning of the European Union, 'the primary objective of the European System of Central Banks [i.e. the European Central Bank and the national central banks of all EU Member States] shall be to maintain price stability.'

To pursue that objective, the European Central Bank follows a monetary policy strategy which is based on a quantitative definition of price stability and a monetary and economic analysis of the developments in the euro area economy.

The policy is then channelled to the real economy via a transmission mechanism which operates mainly through interest rate setting and market expectations.

To steer interest rates and signal monetary policy intentions, the Eurosystem [i.e. the European Central Bank and the (currently 19) national central banks of the EU Member States whose currency is the euro] disposes of a set of instruments and procedures (the operational framework), which comprises open market operations, standing facilities and minimum reserve requirements.

From its beginnings in 1999 until the global financial crisis, the European Central Bank conducted its monetary policy mainly through the use of 'standard' measures. Since 2008, however, it has faced considerable challenges, which prompted it to adopt various 'non-standard' measures: the Enhanced Credit Support, the Securities Markets Programme, Outright Monetary Transactions, and the Expanded Asset Purchase Programme, to name but a few.

Due to their non-standard character, these measures have attracted both praise and criticism. The discussion of their effectiveness, however, points also to the inherent limits of monetary policy. As Mario Draghi, President of the ECB, summed up during a press conference on 22 January: 'What monetary policy can do is to create the basis for growth (...) it’s now up to the governments to implement these structural reforms, and the more they do, the more effective will be our monetary policy'.
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1. The framework of the single monetary policy

1.1. The ECB, the Eurosystem and the ESCB

The legal basis for the single monetary policy is laid down in the Treaty on European Union, the Treaty on the Functioning of the European Union, and the Protocol (No 4) accompanying the Treaties on the Statute of the European System of Central Banks (ESCB) and of the European Central Bank. The most relevant provisions are contained in Articles 3, 13 TEU and Articles 119-144, 219 and 282-284 TFEU.

The Treaties and the Statute of the ESCB establish the European Central Bank (ECB), the Eurosystem and the European System of Central Banks:

- The ECB is an institution of the EU (Article 13 TEU) with legal personality.
- The Eurosystem is made up of the ECB and the (currently 19) national central banks (NCB) of the EU Member States whose currency is the euro (hereinafter the 'euro area').
- The ESCB comprises the ECB and the NCBs of all (currently 28) EU Member States (Article 282(1) TFEU).

The Eurosystem functions according to the principle of decentralised implementation of monetary policy: the ECB coordinates the operations and the NCBs carry out transactions, such as providing funds to banks, settling cashless domestic and cross-border payments and undertaking foreign reserve management operations.

1.2. The Eurosystem’s objectives and tasks

1.2.1. The Eurosystem’s primary objective

Article 127(1) TFEU states that, 'The primary objective of the European System of Central Banks shall be to maintain price stability. Without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the Treaty on European Union.' Article 3 TEU, in turn, states that, 'The Union (...) shall work for the sustainable development of Europe based on balanced economic growth and price stability.'

There is therefore a clear hierarchy of objectives established, with price stability being the primary one. The ECB gives a number of reasons\(^1\) for this preference:

- Price stability makes it easier for people to distinguish between changes in the price of individual goods or services and changes in the general price level. This improves their ability to make rational consumption and investment decisions.
- Creditors convinced of future price stability do not ask for an inflation risk 'premium'\(^2\) when holding nominal\(^3\) assets over a long term.
- Similarly, price stability weakens the incentive for investors to hedge\(^4\) against inflation in economically efficient ways.

\(^1\) See European Central Bank ‘The monetary policy of the ECB’.

\(^2\) A premium in this case is an investment return in addition to the nominal value of the asset.

\(^3\) Nominal assets have value expressed in monetary terms for a specific year or years, without adjusting for inflation (as opposed to real value).
• It eliminates the incentive inflation gives to use cash less than in a stable price environment.  
• It helps maintain social cohesion and stability (since it is the poor who often suffer the most from inflation, as they have limited options to hedge against it).
• It contributes to the soundness of the banking sector and firms’ wealth, by preventing inflationary or deflationary shocks to the real value of nominal assets.

In other words, price stability encourages a reasonable degree of certainty about future price trends, which in turn leads to more efficient consumption and investment decisions, and contributes to improved social cohesion and the creation of sound foundations for healthy banking systems.

1.2.2. The Eurosystem's tasks
Under Article 127(2) TFEU the Eurosystem has four main tasks: namely to define and implement the monetary policy of the Union, conduct foreign exchange operations, hold and manage the official foreign reserves of the Member States and promote the smooth operation of payment systems. In addition, Article 127(6) TFEU and Council Regulation (EC) No 1024/2013 (hereinafter the 'Single Supervisory Mechanism (SSM) Regulation'), entrust the ECB with tasks relating to the prudential supervision of credit institutions established in participating Member States. These tasks are carried out within a Single Supervisory Mechanism composed of the ECB and the national supervisory authorities. The ECB directly supervises significant banks, whereas the national supervisory authorities are in charge of supervising other banks (see point 3.4.1).

2. The ECB's 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.

4 It is accepted that any investment made to provide protection against the decreased value of a currency is money diverted from a potential more efficient allocation.
5 For more information on this subject, see A. L. Marty 'The Inflation Tax and the Marginal Welfare Cost in a World of Currency and Deposits'.
6 For more on this subject, see W. Easterly and S. Fischer 'Inflation and the Poor'.
7 For more information, see Q. Cao 'Inflation and Revaluation of Bank Balance Sheets'.
8 See DB Research 'Deflation: low probability – high costs'.
9 For more on this, see ECB 'The implementation of monetary policy in the euro area'.
10 For more information on this subject, see ECB 'Foreign exchange operations'.
11 See ECB 'Foreign reserves and own funds'.
12 For more information on this, see ECB 'Role of the Eurosystem in the field of payment systems oversight'. 
2.1. The ECB’s monetary policy strategy – elements and principles

To achieve its primary objective, the European Central Bank follows a strategy of analysing the risks faced by the euro area with regards to price stability, and using various transmission channels to influence the economy.

The ECB’s monetary policy strategy comprises a quantitative definition of price stability and an economic and monetary analysis of the risks to price stability in the euro area. Those two main elements provide the framework, within which the ECB assesses relevant information, takes its monetary policy decisions and communicates them to the public.

2.1.1. The ECB’s quantitative definition of price stability

Although price stability is the primary objective of the ESCB, it is not specified precisely in the Treaties. To provide clarity, the ECB decided to define it quantitatively as ‘a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%.’ It further specified that, within the definition, it aims to maintain inflation rates ‘below, but close to, 2% over the medium term’.

This definition increases the clarity and transparency of the ECB’s monetary policy and provides the public with a measure of accountability. Additionally, it anchors the pursuit of price stability in the 'medium term'. This is justified by the fact that the transmission mechanism of monetary policy (see below) imposes a time lag between the formulation of monetary policy and an actual change in prices. During this time lag, prices may be influenced by unexpected shocks. Therefore, a monetary policy focusing on the short term would create unnecessary volatility, instead of contributing to price stability.

2.1.2. Economic and monetary analysis

The ECB bases its monetary policy decisions on economic analysis and monetary analysis. Those ‘two-pillars’ are complementary – the first focusing on the shorter term (see below), the second on the medium-to-long term. They are meant to provide a ‘cross-check’ that reduces the risk of policy error caused by over-reliance on a single indicator or model.

**Economic analysis**

Economic analysis focuses mainly on the assessment of current economic and financial trends and the short-to-medium term risks they present for the stability of prices. The objective of the analysis is to identify the nature of shocks affecting the economy, their effects on costs and prices and their potential propagation.

The variables that are the subject of this analysis include trends in the global economy and the balance of payments, developments in total production or exchange rates,
the demand for goods and services, labour market conditions, and the situation in the financial markets.

In addition to these indicators, the ECB also carries out several surveys that provide further input into the economic analysis, such as the Survey of Professional Forecasters (which is a quarterly survey of expectations for the rates of inflation, real GDP growth and unemployment in the euro area, together with a quantitative assessment of the uncertainty surrounding them).17

**Monetary analysis**

Monetary analysis focuses on the medium to long term. It consists of a detailed analysis of monetary and credit trends (i.e. the currency in circulation, short-term and long-term deposits, repurchase agreements,18 and debt securities with a maturity of up to two years) and their implications for inflation and economic growth.

### 2.2. The transmission mechanism of monetary policy

According to the ECB,19 the monetary transmission mechanism consists of the ‘various channels through which monetary policy actions affect the economy and the price level in particular’. It works in two stages: in the first stage, changes in the policy interest rate20 or in base money21 lead to changes in market interest rates, asset prices, exchange rates and general credit conditions, which affect the demand for credit and investment. In the second stage, the aforementioned changes affect spending on goods and services by households and firms which influences demand and, finally, the price level.

The main lever the central bank has at its disposal to affect the economy is the official interest rates22 it sets in its key operations for the provision of funds to banks (see points 2.3.1., 2.3.2 and 2.3.3). By doing so, it affects directly the interest rates in the money market (short-term) and the expectations of future rate changes23 (in the medium to long term).

#### 2.2.1. The money-market interest rates 'channel'

By affecting money-market rates, monetary policy exerts significant influence over nominal market interest rates24 and, through various channels, over the spending decisions of companies and households, monetary and financial developments and, ultimately, the level of prices.

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17 See ECB ‘ECB Survey of Professional Forecasters’.
18 Repurchase agreements are ‘Money-market instruments usually used to raise short-term capital – a party sells government securities to investors, usually on an overnight basis, and buys them back the following day’.
19 For a schematic illustration, see ‘Transmission mechanism of monetary policy’.
20 Through open market operations or standing facilities – as explained in more detail in points 2.3.1 and 2.3.2.
21 Base money or ‘monetary base’ is composed of the ‘banknotes and coins in circulation plus the minimum reserves credit institutions are required to hold with the Eurosystem and any excess reserves they may voluntarily hold in the Eurosystem's deposit facility’. For more information on the mechanism involved, please see point 2.3.3.
22 See ‘Key ECB interest rates’
23 See ECB working paper ‘Predictions of Short-Term Rates and the Expectations Hypothesis of the Term Structure of Interest Rates’.
24 See ‘Understanding Interest Rates: Nominal, Real And Effective’.
From the official rate to money market rates...

A change in the official rate by the ECB is transmitted through the money market both to money-market\textsuperscript{25} rates (i.e. those for short-term securities, short-term loans or repurchase agreements) and to other short-term rates (e.g. those for interbank deposits).\textsuperscript{26}

...to banks, exchange rates and asset prices...

Bank channel: A change in money-market interest rates creates a positive or negative imbalance for the banks which they pass on to their customers, by adjusting their own rates for loans\textsuperscript{27} and savings, so that they preserve their 'spread'.\textsuperscript{28} This change in interest has an effect on borrowers' capacity to pay back their loans. As a result, banks increase or reduce the amount they lend to individuals and corporations, lending only to financially sound customers, and borrowers consume, invest or defer their consumption and investment plans accordingly. In addition, the change influences the degree of risk banks and borrowers are willing to take, given that risk is linked to the value of assets and their potential growth.

Exchange rates channel: Although the exchange rate is determined by domestic and external factors,\textsuperscript{29} a rise in the interest rate makes the domestic currency more attractive to international investors and should lead to its appreciation, and vice versa. In turn, the change in the exchange rate will affect inflation, by lowering the price of imported goods; by affecting the price of imported intermediate products and thus impacting the price of domestic final products; and finally by changing the competitiveness of domestic products in foreign markets.

Asset price channel: Given that there is a link between securities and interest rates (e.g. there is an inverse relationship\textsuperscript{30} between interest rates and bond prices, so that a rise/fall in long-term interest rates lowers/increases bond prices), a change in interest rates impacts the wealth of private/corporate investors and encourages them to invest or defer their consumption or investment plans.

...affecting changes in consumption and investment...

The wealth effect,\textsuperscript{31} the capacity to borrow, and changes in prices all affect the decisions of households and firms to save or invest. When, for example, the wealth effect and capacity to borrow increase, individuals and firms have stronger incentives to spend or invest. Firms act on those incentives by hiring more workers or purchasing machinery, which boosts production. When they weaken, the opposite holds true.

...impacting the behaviour of individuals and firms.

By impacting on the demand for employees who produce goods/services, the aforementioned mechanisms change conditions in labour markets and affect price and wage-setting. To cover production needs, firms ask their labour force to do overtime,

\textsuperscript{25} See 'Money market: what is it?'.
\textsuperscript{26} i.e. deposits that are held by one bank for another bank.
\textsuperscript{27} The reference here is to the variable loans rate.
\textsuperscript{28} For more information, see 'How banks make money'.
\textsuperscript{29} See for example '6 Factors That Influence Exchange Rates'.
\textsuperscript{30} See 'Why do interest rates tend to have an inverse relationship with bond prices?'.
\textsuperscript{31} 'The premise that when the value of stock portfolios rises due to escalating stock prices, investors feel more comfortable and secure about their wealth, causing them to spend more.' For more information on wealth effects on consumption, see ECB 'Wealth effects on consumption evidence from the euro area'.
which in turn pressures employers to give in to labour demands and increase wages. Wage increases, in turn, increase the wealth of households, encouraging them to spend more. Additionally, changes in demand have an impact on the price of goods and services produced. Once again, if the aforementioned changes have an adverse impact on the saving and investment decisions of households and firms, the opposite holds true.

According to economic theory, the above factors may result in inflation, disinflation – that is, the decline of the inflation rate over a period (e.g. when the inflation rate drops from +4% to +2% but remains positive) – or deflation, that is, a general decline in prices.

### 2.2.2. The expectations channel

Some stakeholders, e.g. the Bundesbank,\(^{32}\) suggest that the expectations channel is 'a theoretical concept describing the effect of monetary policy measures on the inflation expectations of banks and non-banks'. Market participants 'do not respond to changes in the supply and demand conditions in the market but act pre-emptively, drawing on their expectations of future inflation rates, based on past experience'. This behaviour presents a challenge, but also an opportunity for the ECB, since a credible policy and a solid reputation give it the possibility to 'harness' that effect to help in reaching its objective of price stability.

### 2.3. The operational framework

The operational framework is 'a set of instruments and procedures which the Eurosystem uses to steer interest rates, manage liquidity in the money market and signal monetary policy intentions'.\(^{33}\) The operational framework of the Eurosystem comprises open market operations, standing facilities and (minimum) reserve requirements.

#### 2.3.1. Open market operations

Open market operations are the most commonly used tool for managing the liquidity situation in the market and signalling the Bank's stance on monetary policy. The main open market operations are the following:

a. Main refinancing operations (MROs) are regular, open market, reverse transactions (see below) executed by the Eurosystem for the purpose of providing banks with appropriate liquidity. The transactions are conducted through weekly standard\(^{34}\) tenders – in which banks can bid for liquidity – and normally have a maturity of one week;

b. Longer-term refinancing operations (LTROs) are regular, open market operations, executed by the Eurosystem to provide long-term liquidity to the banking system. They are carried out through monthly standard tenders and normally have a maturity of three months (although, as mentioned in points 3.2.2 and 3.2.4, their maturity has been extended significantly during the crisis);

c. Fine-tuning operations (FTOs) are operations carried out on an ad hoc basis, aimed at increasing or decreasing liquidity in the money market and at steering

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\(^{32}\) Text adapted from a short article in the Bundesbank glossary.

\(^{33}\) For more information, see 'Central bank liquidity and liquidity needs of the banking system', in ECB 'The monetary policy of the ECB'.

\(^{34}\) According to the ECB, 'In the context of the operational framework of the Eurosystem, "standard" indicates tender operations that are conducted in accordance with a pre-announced schedule, which is completed within a period of 24 hours from the announcement of the tender to the communication of the results.'
interest rates, in order to smooth the effects of unexpected liquidity fluctuations in the market.

d. Structural operations are executed at the initiative of the ECB to adjust the structural position of the Eurosystem vis-à-vis the financial sector. They can be conducted using reverse transactions, outright operations or the issuance of ECB debt certificates (for examples, including the Covered Bond Purchase Programmes, the Asset Backed Securities Purchase Programme and the Securities Market Programme, see below). Their frequency can be regular or non-regular and their maturity is not standardised.

The Eurosystem can conduct these open market operations in five ways.

Usually, it enters into reverse transactions (operations where the Eurosystem buys or sells eligible assets under repurchase agreements or undertakes credit operations with eligible assets used as collateral). These transactions can be used in all open-market operations but are mainly used for MROs and LTROs.

Otherwise, the Eurosystem can:

- perform outright transactions (operations where the Eurosystem buys or sells eligible assets outright on the market);
- issue ECB debt certificates (whereby the ECB issues debt certificates at a discount with the aim of adjusting the structural position of the Eurosystem vis-à-vis the financial sector so as to create or enlarge a liquidity shortage in the market);
- engage in foreign exchange swaps (whereby the Eurosystem buys/sells euros against a foreign currency and, at the same time, sells/buys them back in a forward transaction on a specified repurchase date);
- collect fixed-term deposits (whereby the Eurosystem invites counterparties to place remunerated fixed-term deposits without collateral with the NCB in the Member State in which the counterparty is established).

2.3.2. Standing facilities

Standing facilities are monetary policy operations which aim to provide and absorb overnight liquidity and signal general monetary policy stance. It is worth noting that, contrary to open market operations which are initiated by the ECB, standing facilities are initiated by the counterparties, i.e. the credit institutions. Two standing facilities are available:

a. The marginal lending facility which allows banks to borrow overnight funds from their national central banks, against eligible collateral.

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35 In a repurchase agreement, the ownership of the asset is transferred to the creditor, while the parties agree to reverse the transaction through a retransfer of the asset to the debtor at a future point in time.

36 i.e. an enforceable security interest is provided over the assets but, assuming fulfilment of the debt obligation, the ownership of the asset is retained by the debtor.

37 Such operations are executed only for structural purposes and only marketable assets can be used as underlying assets.

38 See definition of collateral.
b. The deposit facility, which allows banks to make overnight deposits with their national central banks.

The interest rate on the marginal lending facility is normally higher (and the interest rate on the deposit facility lower) than the corresponding money-market rate. As a result, credit institutions normally only use the standing facilities in the absence of alternatives. For example, during the recent financial crisis, suspicions concerning the liquidity and solvency of a number of banks prompted many credit institutions to keep more central bank reserves than required and to deposit the additional reserves in the deposit facility instead of lending them out to other banks.

The rate on the marginal lending facility and the rate on the deposit facility normally provide a ceiling and a floor, respectively, for the overnight rate in the money market. By setting rates on the standing facilities, the Governing Council effectively determines the corridor within which the overnight money market rate can fluctuate.

2.3.3. Minimum reserves
All euro-area banks are required to hold a certain amount of minimum reserves on current accounts with their respective NCBs. These amounts are calculated in relation to specific items on the balance sheets of the banks, such as deposits.

According to the ECB, by means of those reserves, central banks are able to stabilise money-market interest rates by giving institutions an incentive to smooth the effects of temporary liquidity fluctuations, and also to create or enlarge 'the structural liquidity shortage of the banking system', i.e. the need and demand of banks for central bank credit. This need, in turn, gives the ECB the possibility to steer money-market rates through open market operations, since the ECB allocates liquidity to the banks at a price that matches its policy intentions and therefore (as explained above) influences the money-market interest rates.

3. The conduct of monetary policy

3.1. The first period: 1999-2008

Between the transition to Monetary Union and the European debt crisis, the ECB ensured price stability by increasing or decreasing the rate for its main refinancing operations.

1. In April 1999, in the context of the transition to the Monetary Union, the Governing Council lowered the ECB’s main refinancing rate by 0.5% (from 3% to 2.5%) to counter receding inflationary pressures.

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39 The **overnight rate** is the short-term interest rate at which a depository institution lends funds to another, or the interest rate the central bank charges a financial institution to borrow money overnight.

40 For more information, see ECB 'The Monetary Policy of the ECB'.

41 By making use of averaging provisions over the maintenance period.
2. From November 1999 to October 2000, the Governing Council decided to raise the key interest rates to contain inflationary pressures created by strong economic growth, rising import prices and high monetary growth.

3. Between May 2001 and June 2003, the Governing Council cut the key interest rates to protect the economy from the impact of slower economic growth, adjustments in financial markets (the dot.com crash in the US) and geopolitical uncertainty (September 11 and its aftermath). Given that this last intervention helped contain price pressures and that the state of the economy did not deteriorate markedly, the Governing Council decided to leave the key ECB interest rates unchanged until December 2005.

4. Starting in January 2006 and until the financial crisis (mid-2007), the Governing Council raised the key interest rates from 2% to 4.25% in order to counter the inflationary pressures created by faster growth and the expansion of the supply of money and credit in the euro area.

3.2. The crisis and the introduction of non-standard measures

3.2.1. Introduction
The financial structure of the euro area differs from that of other large economies such as the US in that banks play a crucial role in the financing of the economy and in the monetary transmission mechanism. The corporate sector can to some extent find substitutes for bank lending; however, such substitution is easier for large corporations than for SMEs, which constitute almost 99% of all enterprises in the euro area. The largely bank-based structure of financing is reflected in the way that monetary policy is implemented. As explained earlier, ECB operations consist mainly of refinancing operations. This contrasts with the US Federal Reserve System, where operations consist mainly of outright purchases and sales of assets in the open market, in line with US economy’s greater reliance on capital markets.

3.2.2. The first phase of the crisis (2008-10) – Banking crisis: ‘Enhanced credit support’ to the banking sector
The collapse of Lehman Brothers in September 2008 created uncertainty among financial and credit institutions concerning each other’s financial health. (In academic terms, due to increasing liquidity – and even solvency – risks, the collapse increased counterparty risk that was exacerbated by asymmetric information among market participants.) This uncertainty accentuated pressures that had already existed since the

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42 The rate for the deposit facility was increased from 2% to 3.75%, the rate for the main refinancing operations was increased from 3% to 4.75% and the rate for the marginal lending facility was increased from 4% to 5.75%.

43 The rate for the deposit facility was reduced from 3.50% to 1%, the rate for the main refinancing operations was reduced from 4.50% to 2% and the rate for the marginal lending facility was reduced from 5.50% to 3%.

44 The rate for the deposit facility was increased from 1.25% to 3.25%, the rate for the main refinancing operations was increased from 2.25% to 4.25% and the rate for the marginal lending facility was increased from 3.25% to 5.25%.

45 For more on this topic, see the report of the Advisory Scientific Committee of the ESRB ‘Is Europe Overbanked?’.

46 i.e. the risk to each party of a contract that the counterparty will not live up to its contractual obligations.

47 Asymmetric information refers to a situation in which one party in a transaction has more or superior information compared to another.
summer of 2007, specifically pressures related to significant balance-sheet exposures of numerous euro-area banks to the US sub-prime housing market. This situation eventually led to a near freeze in interbank lending and to the collapse of activities in a large number of financial market segments, and threatened to severely limit the financing of the real economy.\footnote{i.e. 'The part of the economy that is concerned with actually \textit{producing goods and services}, as opposed to the part of the economy that is concerned with buying and selling on the financial markets.' For more information, see Dirk G. Baur \textit{'Financial Contagion and the Real Economy'}.}

If left unresolved, this state of affairs would have made the refinancing of many bank assets impossible, risking a disorderly deleveraging\footnote{A company's attempt to \textit{decrease its financial leverage}. See also \textit{Deleveraging and the role of central banks}, speech by Peter Praet, Member of the Executive Board of the ECB, on 26 October 2012, especially 'Banks can address (...) funding strains by adjusting the asset and/or liability side of the balance sheet (...) Abrupt adjustments of the asset side of the balance sheet can lead to a credit crunch, if they are made by many banks simultaneously. Rational behaviour at the level of an individual bank (and investor) can impose externalities on other players in the financial system through fire sales and financial contagion. This can set a self-sustained process in motion that ultimately brings the whole financial system to collapse.'} by credit institutions at heavily discounted prices. Given the particular structure of the euro-area economy, such a disorderly deleveraging would have had severe consequences for the real economy and price stability in the euro area.

Thus, the first priority of the ECB was to accommodate the funding needs of banks. To do so, it decided to drastically reduce its key interest rates\footnote{The rate on its MROs was reduced from 3.75% to 1%, the rate on the deposit facility from 3.25% to 0.25% and the rate on the marginal lending facility from 4.25% to 1.75%. See ECB data for \textit{key interest rates}.} within a seven-month period (October 2008 to May 2009) and to complement this measure with Enhanced Credit Support, a set of non-standard, temporary policy measures:

\textit{Extension of the maturity of liquidity provision}

The maximum maturity of the longer-term refinancing operations (LTROs) was temporarily extended from three to twelve months. This move served two objectives: to keep the money-market interest rates at low levels by reducing uncertainty in the markets; and to provide a longer liquidity planning horizon to banks, in order to revive interbank lending and encourage banks to continue providing credit to the economy.

\textit{Currency swap agreements}

The Eurosystem temporarily provided liquidity in foreign currencies, most notably in US dollars. (The crisis at this stage was still predominantly a US crisis; therefore, many European banks faced a massive shortfall in US dollar funding). The Eurosystem used reciprocal currency arrangements\footnote{That is, \textit{Temporary arrangements between central banks} to maintain a supply of a country's currency for trade with other central banks at a specified exchange rate.} with the Federal Reserve System to provide funding in US dollars against Eurosystem-eligible collateral with various maturities but at fixed interest rates, which reduced market uncertainty.

\textit{Collateral eligibility requirements}

To facilitate the aforementioned swap arrangements and to allow banks to use a wider range of assets to obtain central bank liquidity, the list of eligible collateral accepted in Eurosystem refinancing operations was extended to include, for example, asset-backed securities.
**First Covered Bond Purchase Programme**

On 2 July 2009, the Eurosystem launched its first Covered Bond Purchase Programme (abbreviated to CBPP1) with the aim of reviving the covered bond market, a primary source of financing for European banks, which had virtually dried up in terms of liquidity and issuance. The Eurosystem committed to purchasing covered bonds denominated in euros and issued in the euro area for a total value of €60 billion (or 2.5% of the total outstanding amount of covered bonds) in the period between June 2009 and June 2010.

3.2.3. *The first stage of the sovereign debt crisis (2010-11) – the 'Securities markets programme'*

In January 2010, markets were expecting a possible Greek sovereign default. Given Ireland, Portugal, Spain and Italy were also facing difficult economic situations (a housing crisis evolved into a financial crisis in Spain and Ireland, there was high public debt in Italy, and slow growth and increasing debt-to-GDP ratio in Portugal), certain secondary markets for government bonds began to dry up. These developments presented the risk of impairing the transmission mechanism through:

- the price channel (because of the link between government bond prices and the prices of assets and costs of borrowing in the economy);
- the liquidity channel (because government bonds play a crucial role in repurchase transactions); and
- the balance sheet channel (because the price of government bonds would have an impact on banks' balance sheets).

This sovereign debt crisis brought to the fore institutional design problems of the euro area: the Treaties include provisions that prohibit monetary financing by the ECB (Article 123 TFEU) and bailouts (Article 125 TFEU). Therefore, the ECB was more constrained in its actions than, for instance were the Federal Reserve or the Bank of England. To reduce market turbulence, it introduced the Securities Markets Programme in May 2010, under which it purchased (mainly) sovereign bonds on the secondary markets. In addition, it sterilised its interventions by offering banks, on a weekly basis,

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52 For more information on covered bonds, see EPRS briefing, 'Covered bonds – ripe for expansion?'.
53 See Reuters 'Greek/German 10yr debt yield spread widens above 300 bps'.
54 According to the ECB, '...the correlation between sovereign bond yields and yields on bonds issued by banks in the respective countries, is high and immediate. This implies increased funding costs for banks, which are then passed on with some lag to bank lending rates.'
55 According to the ECB, 'Given their normally high liquidity, government bonds are the prime collateral used in European repo markets and can provide a benchmark for determining the haircut for other assets used in such transactions. Disruptions in the government bond market can thus paralyse other market segments, making it increasingly difficult for banks to obtain liquidity.'
56 According to the ECB, 'Price changes in the nominal value of government bonds can lead to direct changes in the balance sheet size of financial institutions and an erosion of their capital base. The resulting higher leverage may force banks to shrink their balance sheets with adverse effects on their capacity to extend loans to the private sector.'
57 This prohibition prevents the ECB from purchasing government bonds in the primary market and limits its intervention in the secondary market to serving specific monetary policy purposes consistent with its primary objective of price stability. Moreover, secondary market intervention cannot be used to circumvent the prohibition of primary market intervention.
58 'Sterilisation' is a term used to explain the procedure under which money is removed from the money market so that the monetary base does not increase as a result of an intervention.
interest-bearing deposits for an amount equal to the amount of government bonds it purchased.

At its peak, the programme's volume totalled around €210 billion. According to an ECB study,\(^{59}\) it led to 'stabilisation in markets as well as to an immediate and substantial decline of government bond yields'.

### 3.2.4. The intensification of the sovereign debt crisis (2011-12) and a new banking crisis – additional measures

The Securities Markets Programme was not enough. The downgrades of euro-area sovereign bonds, the slowing down of the European economy, and uncertainty regarding the effectiveness of the measures to tackle the euro-area crisis increased the pressure on the government debt of euro-area countries under financial assistance. In autumn 2011, the adverse interaction\(^ {60}\) between government bonds and national banking systems raised concerns about their viability,\(^ {61}\) which once again rendered the interbank market dysfunctional.

This situation worsened on 26 October 2011, when the Council agreed on a capital package proposed by the European Banking Authority (EBA), under which banks were required to build up additional capital buffers to reach a level of 9% Core Tier 1 capital.\(^ {62}\) The objective of the exercise was to 'create an exceptional and temporary capital buffer to address (...) market concerns over sovereign risk', which would 'provide a reassurance to markets about banks' ability to withstand a range of shocks and still maintain adequate capital'.\(^ {63}\) Nevertheless, the results of the exercise showed that banks needed another €115 billion in total\(^ {64}\) to reach the desired level, which created uncertainty about their capital adequacy and added to market turbulence. In this context (December 2011), the ECB response focused on providing banks with short-term liquidity support and sufficient time to reach the desired capital level. It undertook the following actions:

**Two LTROs (one in December 2011 and one in February 2012) with a maturity of three years each**

These LTROs\(^ {65}\) of a total amount of around €1 trillion provided banks with liquidity over the medium term. According to the ECB, the 'bank participation in those operations

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\(^{59}\) See ECB working paper *The ECB’s non-standard monetary policy measures – the role of institutional factors and financial structure*.

\(^{60}\) See K. Nikolov and A. Popov *The sovereign-bank nexus*.

\(^{61}\) The concerns were founded on the impact of the downgrade of the sovereign-bond credit ratings by the three main credit-rating agencies – Moody's, Standard & Poor's and Fitch – both on the balance sheets of the banks (the banks held government bonds, a drop in their price meant a hit to the balance sheets of the banks) as well as on the ratings of the banks (the banks ran the risk of seeing their rating drop, as a consequence of the downgrade of the sovereign, as their assets were now riskier).

\(^{62}\) A measurement of a bank's core equity capital less hybrid instruments, compared with its total risk-weighted assets. This ratio measures a bank's financial strength, in terms of showing whether it can absorb losses without ceasing to operate.

\(^{63}\) See EBA Methodological Note *Capital buffers for addressing market concerns over sovereign exposures*.

\(^{64}\) See P. Bisio, D. Jurcevic and M. Quagliariello *A short guide to the EBA’s recapitalisation results*.

\(^{65}\) €489 billion in December 2011 and €529 billion in February 2012.
proves that liquidity reached out even to small and very small banks, whose primary business is to refinance small and medium-sized enterprises.66

**Reduction in the minimum reserve ratio requirement**67 from 2% to 1%
The purpose of the reduction was ‘to reduce banks’ liquidity needs and thereby the amount of collateral that they may need to mobilise (…) to satisfy reserve requirements’ and ‘to foster money market activity’ by increasing the incentives of banks with excess cash ‘to offer their liquidity to other banks, as they can no longer deposit it with the fully remunerated reserve account.’68

**Increase in collateral availability**
The ECB allowed NCBs to accept additional credit claims – in particular bank loans – as collateral. Since credit claims correspond to certain types of loans to households and firms, their eligibility as collateral allowed banks to access refinancing using these credit claims, which were directly related to their lending activity.

**Second Covered Bond Purchase Programme**
Finally, in November 2011, the Eurosystem launched a second Covered Bond Purchase Programme (CBPP2). The programme ended, as planned, on 31 October 2012 when it reached a nominal amount of €16.4 billion.

3.2.5. **The third stage of the crisis (2012-14) – OMT and forward guidance**
The end of 2011 and beginning of 2012 were tumultuous, with a proposed Greek referendum on the EU financing package and government crises in both Greece and Italy, as well as with Standard & Poor’s downgrades of nine euro-area sovereigns69 in January and their lowering the credit rating of 16 Spanish banks70 in April. The uncertainty created – which the Greek election in spring 2012 did not lessen – resulted in government bond yields of a number of euro-area countries71 reaching new heights and starting to incorporate ‘redenomination risk premiums’ – that is, the risk that those countries would exit the EMU and redenominate their public and private liabilities.72

**Outright Monetary Transactions**
Against this background, the ECB sent a strong signal to the markets, with its President declaring in a speech that ‘the ECB is ready to do whatever it takes to preserve the euro’.73 Then in September, the ECB announced a new scheme, the Outright Monetary Transactions (OMT) Programme,74 under which it was prepared to intervene along with NCBs in the secondary sovereign-bond markets of euro-area member countries.

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66 P. Cour-Thimann and B. Winkler *The ECB’s non-standard monetary policy measures – the role of institutional factors and financial structure*.
67 i.e. the average amount of liquidity that banks needed to hold on their current accounts during a maintenance period in order to fulfil their minimum reserve requirements.
68 For more information, see ECB *Implementation of new collateral rules and reserve requirements*.
69 Austria, Cyprus, France, Italy, Malta, Portugal, Slovakia, Slovenia and Spain.
70 Including Santander and BBVA.
71 Greece, Portugal, Ireland, Spain and Italy.
72 See J. Klose and B. Weigert *Sovereign yield spreads during the Euro-crisis – Fundamental factors versus redenomination risk*.
73 Speech by Mario Draghi, President of the European Central Bank, on 26 July 2012.
74 For a more analytical examination of OMT, please see point 5.4.4.
According to many well-known economists, this allowed the ECB to act as a lender of last resort in the government bond markets, which contributed significantly to restoring financial market confidence (even though no operations have yet been conducted).

The OMT Programme differed from the Securities Markets Programme in several ways. A condition for access to the OMT was 'strict and effective conditionality attached to an appropriate European Financial Stability Facility/European Stability Mechanism programme'. The OMT programme would be – in principle – unlimited in time and scope. Finally, the ECB would be treated pari passu with other creditors. Furthermore, the transparency of OMT purchases would be greater since the breakdown by country and the average duration of holdings would be published.

In February 2014, the German Federal Constitutional Court (BVerfG) requested a preliminary ruling from the Court of Justice of the European Union (CJEU). The German court asked:

a. Whether the OMT programme is a monetary policy measure and, by extension, falls within the scope of the ECB’s mandate.

b. Whether the measure meets the prohibition on monetary financing laid down in Article 123(1) TFEU.

The CJEU has not yet delivered its decision. However, on 15 January 2015, the Advocate General issued an opinion which considered that the programme complies with Articles 119 and 127 TFEU, provided that the ECB refrains from any direct involvement in the financial assistance programmes to which the programme is linked, and that the ECB complies strictly with the obligation to state reasons as well as with the requirements deriving from the principle of proportionality. This opinion – pending the decision of the Court itself – was interpreted by a number of commentators as ‘giving the green light’ to quantitative easing in the euro area.

Mario Draghi’s declaration and the OMT programme have greatly reduced market volatility in the euro area. Combined with the reform programmes undertaken in Mediterranean euro-area countries they ‘led to a dramatic improvement in monetary policy transmission. Sovereign bond yields in Spain and Italy fell by 100 and 50 basis points’ in August 2012. In addition, ‘the bond spreads fell very significantly’.

Nevertheless, as 2012 ended and 2013 started, a new source of tension appeared. Inflation, which during the crisis had reached a peak of 3%, started decreasing, reaching

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75 See for example, C. A.E. Goodhart and D. Schoenmaker ‘The ECB as lender of last resort?’, A. Winkler ‘The ECB as Lender of Last Resort: Banks versus Governments’, or W. H. Buiter and E. Rahbari ‘The ECB as lender of last resort for sovereigns in the euro area’.

76 The EFSF was a temporary crisis resolution mechanism of euro-area Member States, which provided financial assistance to Ireland, Portugal and Greece, financed through the issuance of bonds and other debt instruments on capital markets.

77 The ESM is the permanent crisis resolution mechanism for euro area countries. It issues debt instruments in order to finance loans and other forms of financial assistance to euro area Member States.

78 i.e. it would not have any preferential treatment, like it was the case in the Securities Markets Programme.

79 See, for example, ‘ECJ advocate general gives green light for ECB’s bond purchasing program’.

80 See G. B. Wolff ‘The ECB’s OMT Programme and German Constitutional Concerns’.
1.2% in April 2013. This disinflation, combined with the slow growth of the euro-area economy, prompted the ECB to adopt another precautionary non-standard measure, namely, forward guidance.

**Forward guidance**

In July 2013, ECB President Draghi declared in a press conference that 'looking ahead, our monetary policy stance will remain accommodative for as long as necessary. The Governing Council expects the key ECB interest rates to remain at present or lower levels for an extended period of time.' This has been seen as the introduction by the ECB of forward guidance or 'explicit statements by a central bank about the likely path of future policy rates (...) typically conditioned (...) on the evolution of certain key macroeconomic aggregates'.

According to P. Hubert and F. Labondance, the objective of forward guidance is 'to influence private expectations about short-term rates, which in turn will influence expectations about long-term rates, in order to strengthen the transmission of monetary policy, and thus support the economy'.

G. B. Eggertsson and M. Woodford observe that this strategy is meant to complement quantitative easing (see below) and is especially relevant when policy rates are at, or close to, their effective lower bound, the normal channels of monetary policy transmission are impaired, or when there is exceptional uncertainty on the state of the economy.

According to ECB Executive Board Member Peter Praet, 'The ECB’s forward guidance (...) has contributed to more stable money market conditions and has helped to anchor market expectations more firmly. It also ensures that our monetary policy stance is not excessively vulnerable to shocks that are disconnected from the underlying economic and monetary conditions in the euro area.' However, C.J.M. Kool and D. L. Thornton have expressed doubts as to the effectiveness of forward guidance: they have investigated the effectiveness of forward guidance for the central banks of New Zealand, Norway, Sweden and the US, and found that it only improved market participants’ ability to forecast short-term rates over relatively short forecast horizons, and only for Norway and Sweden.

**3.3. Views of the main stakeholders on the conduct of monetary policy**

The measures taken by the European Central Bank have been praised by some for stabilising the financial system and the economy, as well as in ensuring price stability. Nevertheless, many of these measures have also been criticised by academics and politicians for various reasons.

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81 See ECB 'Inflation and the euro'.
83 ‘The usefulness of forward guidance’, Speech by Benoît Coeuré, Member of the Executive Board of the ECB, 26 September 2013.
84 P. Hubert and F. Labondance ‘The chiaroscuro of the ECB’s “forward guidance”’.
85 The expectations theory of the term structure of interest rates suggests that longer-term interest rates reflect the expected path of the very short-term interest rates which the central bank controls. For more information see P. Praet ‘Forward guidance and the ECB’.
86 G. B. Eggertsson and M. Woodford ‘Optimal monetary policy in a liquidity trap’.
87 See the aforementioned speech by Benoît Coeuré.
88 P. Praet ‘Forward guidance and the ECB’.
89 C.J.M. Kool and D. L. Thornton ‘How Effective Is Central Bank Forward Guidance?’.
According to an industry participant, ‘One of the big advantages of the CBPP is that it gave banks the ability to finance themselves in the longer tenors\(^90\) and exit the shorter-term government guarantee programmes’, whereas another claimed that the programme ‘removed a source of uncertainty for those covered bond investors previously hurt by spread widening’.\(^91\) However, others criticised the interventions under the programme as very small and ‘ineffective outside the narrow confines of a particular – and not very important – market segment’.\(^92\) In addition, given that the share of each NCB in the programme was primarily allocated according to the percentage of ECB capital stock held,\(^93\) ‘national interest came to the fore as central banks tended mostly to buy their country’s domestic bonds’.

The LTROs were praised because they ‘diminished significantly borrowing costs for the euro-area banks and governments’, and because they were ‘the only measure that succeeded in reducing bank refinancing costs (...) their impact was particularly strong in money market’.\(^94\) However, others criticised them because they prompted banks to ‘go on another credit-fuelled binge, (...) but this time snapping up the debt of their own governments’,\(^95\) strengthening in this way the sovereign-bank nexus that caused problems during the crisis.

The Securities Market Programme was praised because ‘government bond purchases undertaken within [it] were effective in affecting yields even despite the context of the severe sovereign debt crisis and the controversy which surrounded it’.\(^96\) In fact, the purchases under the programme ‘proved to be the most effective in lowering sovereign spreads and their effects range from 35 basis points (Italy) to 476 basis points (Greece)’.\(^97\) Others, however, criticised the programme as opaque, given that neither the size/criteria of the purchases, nor the length of the programme were announced in advance. In addition, it has been criticised as creating moral hazard, given it may have encouraged governments to defer necessary structural reforms.

Finally, the OMT programme has been praised for lowering sovereign-bond yields in peripheral crisis countries and reducing bond spreads significantly. Nevertheless, it has also been criticised because government bond purchases ‘undermine incentives for reform at national level; (...) expose the ECB to balance sheet risks that may eventually lead to fiscal redistribution among euro area countries; and (...) violate the monetary financing prohibition because they directly affect the conditions on which governments can issue debt’.\(^99\)

\(^{90}\) ‘The amount of time left for the repayment of a loan or contract or the initial term length of a loan’.

\(^{91}\) See ‘Running for cover’ in International Financing Review.

\(^{92}\) C. Wyplosz in ‘Non-Standard Monetary Policy Measures - An Update’.

\(^{93}\) See ‘2010 ECBC European Covered Bond Fact Book’.

\(^{94}\) U. Szczerbowicz ‘The ECB unconventional monetary policies: have they lowered market borrowing costs for banks and governments?’.


\(^{96}\) F. Eser and B. Schwaab ‘Assessing asset purchases within the ECB’s Securities Markets Programme’.

\(^{97}\) U. Szczerbowicz ‘The ECB unconventional monetary policies: have they lowered market borrowing costs for banks and governments?’.

\(^{98}\) See Z. Darvas ‘The ECB’s Magic Wand’, and D. Gros, C. Alcidi and D. Valiante ‘Can unconventional Monetary Policies ensure the stability of the euro area?’.

3.4. Present and future trends (2014–)

3.4.1. The ECB as supervisor (in the context of the SSM)

In November 2014, in the context of the Single Supervisory Mechanism, one of the pillars of the Banking Union, the ECB started directly supervising 120 'significant' institutions, which represent almost 85% (by assets) of the euro-area banking sector.

Before officially assuming those supervisory tasks, the ECB conducted a comprehensive assessment. The objectives of this exercise – which was based on the Capital Requirements Regulation and Directive (CRR/CRD IV) and consisted of an asset quality review and a stress test – were to strengthen banks’ balance sheets, enhance transparency on their condition, and increase stakeholder confidence by assuring them that all banks would be soundly capitalised. The assessment, which was conducted with the assistance of national supervisors, identified a capital shortfall of €25 billion at 25 banks. Twelve of them already covered their capital shortfall by increasing their capital by €15 billion in 2014, whereas the remaining banks have up to the end of August 2015 to cover their capital shortfall.

3.4.2. Third Covered Bond Purchase Programme and Asset-Backed Securities Purchase Programme

In its recent Communication on Long-Term Financing of the European Economy, the European Commission identified an issue that is topical in the current environment: there is a need to 'increase the ability of banks to expand their lending and finance economic growth'. To cover this need, the ECB decided to launch two programmes, in October and November 2014, to revive particular segments: covered bonds and asset-backed securities. The programmes, the third Covered Bond Purchase Programme (CBPP3) and the Asset-Backed Securities Purchase Programme (ABS PP) will last for at least two years. Their goal is to support financing conditions in the euro area, facilitate credit provision to the real economy and generate positive spillovers to other markets. On 13 February 2015, the purchases in the context of the ABSPP amounted to €2 870 million and those for the CBPP3 to €45 954 million.

3.4.3. ECB Quantitative Easing – the Expanded Asset Purchase Programme

In its recent economic and monetary analyses, the ECB observes that there are downside risks to the economy, and points to the need to monitor them and provide 'monetary policy accommodation, if needed'. Indeed, inflation in the euro area in December 2014 was -0.2% and growth rates are anaemic. At the same time, the key interest rates are close to zero, with the rate for the deposit facility currently at

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100 See 'Single Supervisory Mechanism'.
101 See 'Banking union'.
102 For more information, see ECB press release 'ECB publishes final list of significant credit institutions' 4 September 2014; for a list of those institutions, please see 'The list of significant supervised entities and the list of less significant institutions'.
103 The remaining 3 500 entities are directly supervised by national supervisory authorities.
104 See 'Comprehensive assessment'.
105 See 'Capital requirements regulation and directive – CRR/CRD IV'.
106 See ECB press release 'ECB's in-depth review shows banks need to take further action'.
107 See ECB 'Liquidity analysis'.
108 See for example this editorial, published in December 2014.
109 ECB 'Euro area economic and financial data'.
To contribute to reviving the euro-area economy and raise inflation, bringing it back to the desired level of lower than but close to 2%, the ECB decided to pursue an 'Expanded Asset Purchase Programme' (EAPP) on 22 January 2015.

Similar unconventional measures were implemented by the Bank of Japan in 2001 and by the Federal Reserve and the Bank of England since 2008. Although the names of the specific programmes and their details differ, they are commonly referred to as 'quantitative easing' (QE), 'an unconventional form of monetary policy where a central bank creates new money to buy financial assets, like government bonds'.

Under QE, a central bank creates money and uses it to purchase financial assets from private investors such as banks, pension funds and insurance companies. This process is electronic and does not involve printing banknotes: the central bank creates money by increasing the credit in its own account. Under the programme, the ECB will add the purchase of 'euro-denominated investment-grade securities issued by euro-area governments and European institutions' to the ABS PP and the CBPP3.

The combined monthly purchases under the three programmes will amount to €60 billion. They will start in March 2015 and will be carried out for 18 months or 'until a sustained adjustment in the path of inflation towards the ECB's objective of lower but close to 2%' is observed. The purchases will be based on the Eurosystem national central banks' shares in the ECB's capital key. They will be done in the secondary market and amounts purchased will never exceed one third of a country’s debt issuance, or 25% of any given issue. Certain additional eligibility criteria will be applied in the case of countries under an EU/IMF adjustment programme. Finally, 'with regard to the sharing of hypothetical losses, (...) 20% of the additional asset purchases will be subject to a regime of risk sharing'.

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110 Setting negative interest rate for banks deposits in the ECB means that banks are now charged for hoarding their money there. It was intended to make saving less attractive than borrowing. This is the first time a major central bank has introduced such a measure.

111 See ECB 'Monetary policy'.

112 For a more detailed presentation of the EAPP and a discussion of the concerns brought forward, see 'The ECB's Expanded Asset Purchase Programme'.

113 See Bank of England 'What is Quantitative Easing?'.

114 See Bank of England 'Quantitative easing - Frequently asked questions'.

115 See 'What does investment grade mean?'.

116 'A general term for stocks, bonds, options, subscription rights, warrants and other tradable investments that confer a right to income or ownership.'

117 Although this formulation might create the impression that the programme is open-ended (that is, will not finish in September 2016 if the results have not been attained), there were no formal commitments from the ECB in that direction.

118 See ECB 'Capital subscription'.

119 'The market where something is traded after having initially been sold (on the primary market) by the original owner or issuer'.

120 This formulation, which summarises a statement made on 8 January 2015, in effect makes the purchase of Greek sovereign bonds, conditional on the signature of another financial assistance agreement.

121 This formulation has been interpreted as a concession to some members of the ECB Governing Council, who expressed concerns at their countries having to shoulder the losses in the event of another country's default and subsequent exit from the euro area.
However, the programme has generated lively debate, because the results of the previous three major QE programmes have been mixed\textsuperscript{122} and because of concerns relating to its legality and to its feasibility.\textsuperscript{123}

4. Outlook

Only time will show whether the monetary policy pursued by the European Central Bank has been successful, and even then, it will be difficult to say whether the policy choices taken were optimal, given that their effects may eventually be constrained by a multitude of exogenous political, economic or financial factors. Nevertheless, many commentators share the view that the crisis has created expectations on behalf of citizens, the media or the markets, that exceed the role of the ECB, which is primarily to maintain price stability. It is therefore useful to recall that:

\textit{What monetary policy can do is to create the basis for growth, but for growth to pick up, you need investment. For investment you need confidence, and for confidence you need structural reforms. The ECB has taken a further, very expansionary measure today, but it’s now up to the governments to implement these structural reforms, and the more they do, the more effective will be our monetary policy} (...) \textit{It’s very important to have in place a so-called growth-friendly fiscal consolidation for confidence strengthening} (...) \textit{But for this now, we need the actions by the governments, and we need the action also by the Commission, both in its overseeing role of fiscal policies and in its implementing the investment plan, which} (...) \textit{now has to be implemented with speed. Speed is of the essence}.\textsuperscript{124}

\textsuperscript{122}For more information on the results of the other programs, see Bank of England \textit{‘What are the macroeconomic effects of asset purchases?’}, Press release of the Board of Governors of the Federal Reserve System (29 October 2014), M. Spiegel \textit{‘Did Quantitative Easing by the Bank of Japan “Work?”}. More specifically about Japan, see \textit{‘Historical Inflation Rates for Japan (1971 to 2014)’} and Open Europe briefing \textit{‘QE in the Eurozone: limited economic benefits at a high legal and political cost’}.

\textsuperscript{123}That is, whether the particular structure of the European economy and its prevailing conditions will prevent the programme from reaching the expected results.

\textsuperscript{124}Mario Draghi, \textit{Introductory statement to the press conference} on the occasion of the Expanded Asset Purchase Programme, 22 January 2015.
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According to ECB President, Mario Draghi, 'There was a time, not too long ago, when central banking was considered to be a rather boring and unexciting occupation. In the era of the 'Great Moderation', mostly seen as the period between the mid-1980s and the beginning of the global financial crisis, inflation was tamed and macroeconomic volatility was contained. Some thought that monetary policy could effectively be placed on auto-pilot. I can confidently say that this time has passed.'

Indeed, monetary policy, a rather unexciting and arcane subject for many, now regularly occupies newspaper headlines, and terms like ‘Securities Markets Programme’, ‘LTRO’, ‘Outright Monetary Transactions’, and ‘Quantitative Easing’, have become part of our vocabulary.

The monetary policy of the ECB has maintained the same underlying goal since 1999. But in the wake of the financial crisis, it adopted several 'non-standard' measures which have both been praised and criticised, and led to the ECB’s actions being scrutinised as never before.