

Ten years of monetary policy cooperation in the Eurosystem

Ten years ago, a number of important decisions were made regarding the introduction of the euro from 1 January 1999. Based on the convergence criteria, the Council of the European Union named the first eleven countries to take part in European monetary union on 2 May 1998. The European System of Central Banks was established with effect from 1 June 1998. In October, the Governing Council of the ECB announced its monetary policy strategy and, on 31 December 1998, the euro exchange rates of the national currencies of the first eleven member states were irrevocably fixed.

This article explains how central banks in the Eurosystem have cooperated closely since then – in preparation for both monetary policy decisions and their implementation – and outlines key developments and experience to date in this regard. Overall, the Eurosystem can look back on a successful decade: despite repeated price surges originating in the global markets and tax-related price rises, the inflation rate averaged at just above the stability mark of “below, but close to 2%”. The monetary policy strategy and instruments have proven their worth, and the Eurosystem is also well-equipped to meet the challenges of the future.

The ESCB, the Eurosystem and the ECB

*Together, the
ECB and NCBs
form the
Eurosystem*

The European System of Central Banks (ESCB) comprises the European Central Bank (ECB) and the national central banks (NCBs) of all EU member states. This system therefore includes the central banks of those EU member states in which the euro has not yet been introduced as the single currency. The ECB and NCBs of those EU member states which are part of the euro-area are known as the "Eurosystem". The Eurosystem in its entirety is the central bank of the euro-area.

*The Governing
Council of the
ECB ...*

The supreme decision-making body of the Eurosystem, and therefore the ECB, is the Governing Council of the ECB. It makes the decisions necessary to fulfil the tasks of the Eurosystem, with the principal task being to ensure price stability. Its primary remit is thus to define the monetary policy of the euro-area. The Governing Council comprises the six members of the Executive Board of the ECB and the presidents or governors of the NCBs of those countries which have adopted the euro. The members of the Governing Council are individually responsible and act independently with regard to all decisions, even those affecting monetary policy.¹

*... and its
voting
modalities*

Most of the Governing Council's decisions are by simple majority; if votes are tied, the ECB president has the casting vote.² The ESCB Statute was amended on the basis of the Treaty of Nice, which entered into force on 1 February 2003, to include a provision on rotational voting. Its purpose is to ensure the Governing Council can efficiently make timely decisions, even in an enlarged euro-area.³

Based on this system of rotation, once euro-area membership reaches 19 countries, the Bundesbank president will vote four times out of five.

Pursuant to the ESCB Statute, NCBs may perform functions which do not relate to the ESCB or the Eurosystem unless a two-thirds majority of the Governing Council concludes that these functions interfere with the objectives and tasks of the ESCB. The Bundesbank therefore independently performs tasks pursuant to national law. For example, it works with the Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*, or BaFin) on banking supervision issues. It also renders services for the public sector and represents Germany in the International Monetary Fund.

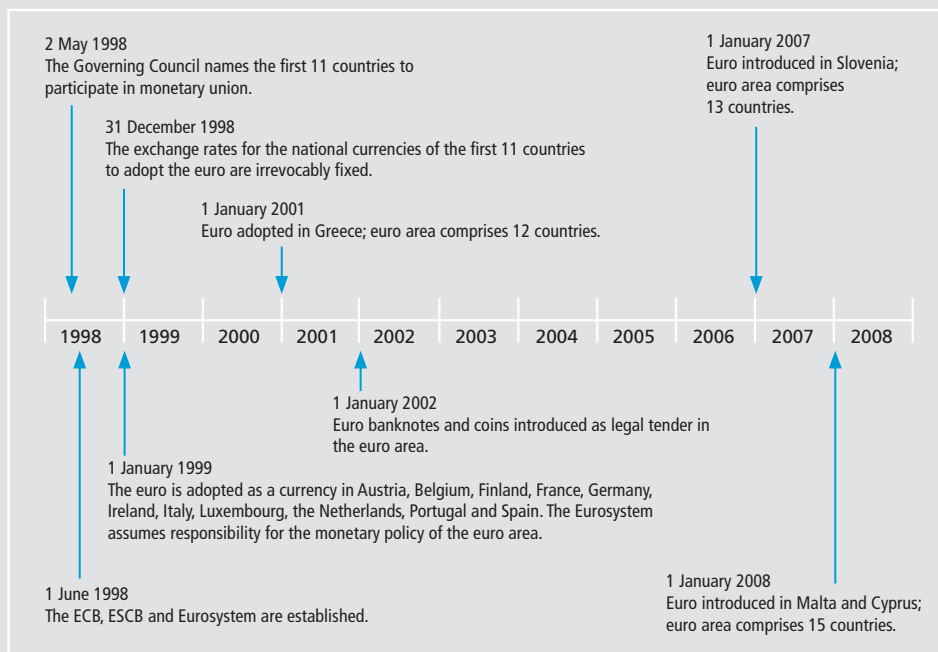
*The NCBs
as national
institutions*

¹ The General Council, which comprises the president and vice-president of the ECB as well as the presidents or governors of the national central banks of all EU member states, deals with monetary policy issues which also affect those EU member states which have not yet adopted the euro as their currency.

² In some cases, the votes of the national central bank presidents are weighted according to the respective national share of the ECB's subscribed capital and the votes of the members of the Executive Board are given a zero weighting. This applies to financial arrangements such as capital adequacy, the transfer of currency reserves to the ECB, the distribution of the NCBs' monetary income and the distribution of the net profit and loss of the ECB.

³ The system of rotation begins at the point at which 16 NCB governors are represented on the Governing Council, but can be postponed until the number of NCB governors exceeds 18. According to the system of rotation, all members of the Governing Council will continue to take part in meetings and consultations in future, but the number of voting national central bank governors will not exceed 15, whereas the six members of the Executive Board will retain permanent voting rights. To this end, the governors of the NCBs will, depending on the relative size of their country's economy and the total aggregated balance sheet of its monetary financial institutions, be divided into two, and later three, groups with different voting frequencies. For details, see European Central Bank, The adjustment of voting modalities in the Governing Council, Monthly Bulletin, May 2003.

Key events in European monetary union from 1998 to 2008



Deutsche Bundesbank

The Eurosystem's monetary policy strategy

Price stability as primary objective

Based on the premise that price stability is monetary policy's best contribution to sustained growth and employment, Article 105 of the EC Treaty states that the primary objective of the Eurosystem is "to maintain price stability".

Definition of price stability as an inflation rate of "below, but close to 2%"

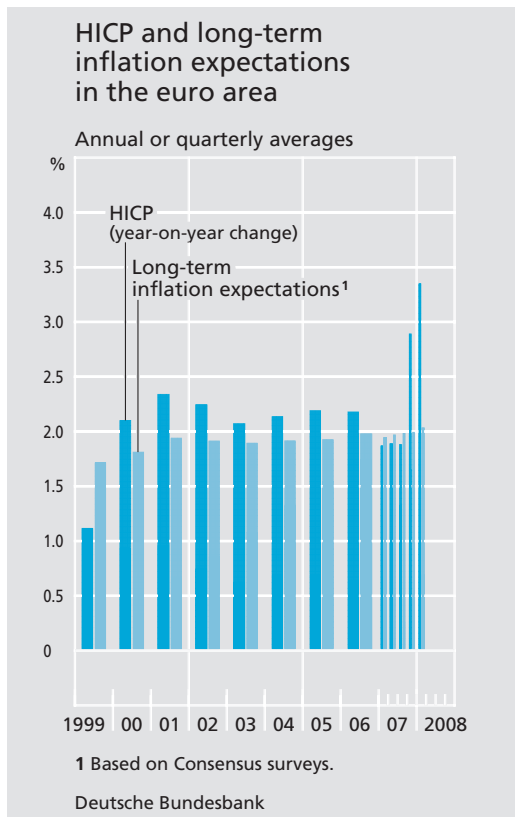
The EC Treaty does not, however, provide a quantitative definition of "price stability". To create clarity in this regard, the Governing Council of the ECB announced a quantitative definition of price stability in October 1998, which was reworded more precisely in spring 2003.⁴ This definition states that price stability is "a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the

euro-area of below, but close to 2%." Price stability within this meaning must be guaranteed in the medium term. This addendum takes into account the fact that prices are subject to short-term fluctuations which cannot be controlled by monetary policy.

There are several reasons for defining price stability as an inflation rate of just over zero percent. The measured increase in the price index usually has an upward bias since changes in consumption and purchasing habits are not taken into account sufficiently in statistical price measurement. Furthermore, in spring 2003, the Governing Council con-

Reasons for a slightly positive inflation rate

⁴ See European Central Bank press release of 13 October 1998, "A stability-oriented monetary policy strategy for the ESCB".



sidered it necessary to provide a certain safety margin to protect against deflation risks.

By publishing its quantitative definition of price stability, the Governing Council is not only providing the general public with a guide for expected inflation, but also a yardstick by which the success of its monetary policy can be measured. At 2.1% on average, the annual inflation rate was above this stability target during the first nine years of monetary union. This was, however, not least due to a series of upward price shocks originating in the international energy, commodities and agricultural markets as well as changes in taxes, and was therefore largely beyond the influence of monetary policy. Nonetheless, this is no cause to sit back and relax, especially as it cannot be assumed that

the inflation-restraining effects of globalisation will continue.⁵ In recent months, pressure on prices has risen significantly and the price environment has substantially deteriorated. Against such a backdrop, monetary policy must commit clearly to price stability so as not to damage the stock of trust built up in recent years.

The main elements of the Governing Council's monetary policy strategy – further to the definition of price stability – are the two pillars of its framework for monetary policy analysis. The two-pillar approach is based on the assertion that monetary policy geared to price stability must take into account shorter-term and longer-term price risks alike. The Governing Council analyses the former primarily on the basis of macroeconomic and financial indicators (economic analysis). Longer-term risks, on the other hand, are mostly analysed using monetary indicators (monetary analysis).

Two-pillar strategy

In the short to medium term, the main factor affecting price development is the relationship between supply and demand on goods and factor markets. Within the context of its economic analysis, the Governing Council therefore observes and interprets, among other things, global economic activity, exchange rate developments, euro-area competitiveness, income and price developments, labour and financial markets and a wide range of indicators of expectations.

Economic analysis ...

⁵ See Deutsche Bundesbank, Germany in the globalisation process, Monthly Report, December 2006, pp 17-34.

In doing so, it aims to identify developments which could lead to price changes in the next one to two years. From a monetary policy perspective, the nature of inflationary pressure, whether temporary or long-term, plays a crucial role. To identify such risks early, the Eurosystem draws on information on wage developments as well as measures of inflation expectations derived from surveys or financial market indicators.⁶ Faced with medium-term upside inflation risks, a central bank must respond by raising interest rates to ensure medium-term price stability.

... and
macroeconomic
projections

To allow for interdependencies between the various indicators, the Eurosystem experts also regularly prepare, among other things, consistent forecasts for GDP, its components and HICP price developments for the current and next year as well as the year after next. These projections have been published in the ECB's *Monthly Bulletin* since December 2000 and are now released on a quarterly basis. The projections published in December and June are subject to a time-consuming process of coordination among all Eurosystem central banks (see p 22), whereas those published in March and September are adjusted by ECB staff alone based on the principal projection rounds from the previous quarter. The NCBs contribute an updated forecast of short-term inflation for this purpose. A few NCBs now publish their contributions to forecasts in their own countries. The Bundesbank started publishing its projections for Germany regularly in December 2007.⁷

Monetary
analysis ...

To assess longer-term price risks, the Governing Council, in its monetary analysis, uses the

empirically well-documented long-term relationship between money and price developments in the euro-area.⁸ This relationship can be seen, for example, in the fact that the quality of inflation projections based on the development of the broadly defined money stock M3⁹ is notably higher for forecast horizons of more than two years than for forecasts based on the real economic indicators used for economic analysis.¹⁰ Moreover, since real-time data on monetary aggregates and loans are readily available and, unlike many real economic indicators, subject to only relatively minor changes, monetary data can be used to identify longer-term potential price risks early.¹¹

Since the indicator function may, nonetheless, be influenced by temporary one-off fac-

... is broad-
based

6 See Deutsche Bundesbank, How informative survey data on private sector inflation expectations are for monetary policymakers, *Monthly Report*, October 2006, pp 15-27, and European Central Bank, Measures of inflation expectations in the euro-area, *Monthly Bulletin*, July 2006, pp 59-68.

7 See Deutsche Bundesbank, Outlook for the German economy: macroeconomic projections for 2008 and 2009, *Monthly Report*, December 2007, pp 17-29.

8 See Deutsche Bundesbank, The relationship between money and prices, *Monthly Report*, January 2005, pp 13-24.

9 M3 includes currency in circulation and short-term bank deposits (overnight deposits as well as short-term time and savings deposits) of residents of the euro-area as well as close equivalents (repo transactions, money market fund shares and short-term bank bonds).

10 See M Scharnagl and C Schumacher (2007), Reconsidering the role of monetary indicators for euro-area inflation from a Bayesian perspective using group inclusion probabilities, Deutsche Bundesbank Research Centre, Discussion Paper, Series 1, No 09/2007; B Hofmann (2006), Do monetary indicators (still) predict euro-area inflation?, Deutsche Bundesbank Research Centre, Discussion Paper, Series 1, No 18/2006, and B Hofmann (2008), Do monetary indicators lead euro-area inflation?, ECB Working Paper No 867.

11 See M Scharnagl, C Gerberding and F Seitz (2007), Simple interest rate rules with a role for money, Deutsche Bank Research Centre, Discussion Paper, Series 1, No 31/2007, and Deutsche Bundesbank, Monetary policy under uncertainty, *Monthly Report*, June 2004, pp 15-28.



tors, monetary analysis is not restricted to monitoring M3. Alternative definitions of money as well as components and counterparts of M3 are also analysed. The latter provide insights into the sources of money creation. Private sector loans are usually the driving force behind monetary growth in the euro-area. This has been the case in recent years as well. Since such funds are raised to cover expenditure, strong private lending growth should give rise to increased demand for goods and services, and thus corresponding price pressure.

*“Traditional”
monetary
analysis of
components
and
counterparts
of M3*

This need not necessarily be the case, however. Borrowers could, for instance, use the money borrowed to purchase assets such as financial instruments or real estate. Instead of the prices of goods, corresponding asset

prices, which are not part of the HICP, then rise. Real estate prices have, in fact, risen sharply in the euro-area in recent years.¹² Furthermore, a sharp rise in borrowing can be seen alongside a strong issuance of long-term debt securities by banks. As these are not part of M3, the long-term liabilities of banks – known as “monetary capital” – increase instead of M3. Conversely, shifts from monetary capital to the money stock temporarily boost M3 growth without necessarily inviting inflation risks. The period from 2001 to 2003 is an example of a particularly long period of such portfolio shifts caused by considerable prevailing uncertainty on the financial markets.

The quantitative assessment of uncertainty-related portfolio shifts is an example of the continuous refinement of monetary analysis in the Eurosystem.¹³ This was initially determined by comparing monetary growth and the reference value for non-inflationary monetary growth. In the course of time, a number of other instruments have been adopted to quantify one-off developments. These include estimates of money demand functions which, as well as the usual macroeconomic variables for interest and income, also factor in explicit measures of, for instance, macroeconomic uncertainty, real estate price developments

*Refining
monetary
analysis:
extended
money demand
functions ...*

¹² See Deutsche Bundesbank, The relationship between monetary developments and the real estate market, Monthly Report, July 2007, pp 13-24.

¹³ For an account of relatively new instruments of monetary analysis in the euro-area, see Monetary analysis in real time, ECB Monthly Bulletin, October 2004, pp 43-66.

and international portfolio allocation as determinants of monetary developments.¹⁴

... "underlying pace of monetary dynamics" and monetary-based inflation forecasts

In addition, there are various methods of determining the "underlying pace of monetary dynamics" – in other words, any development in the money stock which is not influenced by temporary shocks and therefore contains key information on the forthcoming inflation trend.¹⁵ These methods have also been further developed. They now range from simple filtering and trend techniques to complicated factor models capable of processing vast quantities of data. Furthermore, the above-mentioned forecast models used to predict the longer-term inflation rate based on monetary variables are now standard instruments of monetary analysis. They also provide a graphical representation of the uncertainty inherent in such forecasts in the form of confidence bands around the point prediction.

Cross-check of both pillars

The two pillars of the analytical framework do not constitute competing views, but rather two complementary assessments of future price risks in the euro-area. Overall, the broad-based two-pillar strategy mitigates the danger of the Governing Council basing its monetary policy decisions on just one potential source of price risks. It therefore reduces the likelihood of incorrect monetary policy decisions. Cross-checking economic analyses on the basis of monetary analyses also extends the time horizon upon which decision makers base their assessment of risks to price stability. Moreover, this extended time horizon allows the Eurosystem to factor in the significance of asset market price movements

which may only impact on consumer prices in the medium to long term.

The monetary policy decision-making process

In preparation for the monetary policy decisions of the Governing Council, continuous, intensive exchanges of information take place among all central banks in the Eurosystem. These take the form of cooperation between various committees and working groups of all central banks which regularly carry out preliminary work for the Governing Council as the supreme decision-making body of the Eurosystem. There are also less institutionalised forums in the Eurosystem. These include more academic workshops on specific, topically relevant issues and joint, broad-based research networks on select monetary policy topics. The findings of these forums are also factored into the monetary policy opinion-forming process of the Eurosystem.

Close cooperation among all central banks in the Eurosystem ...

Close cooperation among central banks in the Eurosystem ensures that the ECB and NCBs contribute equally to the preparation and implementation of the single monetary policy. This broad-based decision-making and opinion-forming process has a variety of advantages. The close involvement of NCBs en-

... has advantages

¹⁴ See C Greiber, and W Lemke (2005), Money demand and macroeconomic uncertainty, Deutsche Bundesbank Research Centre, Discussion Paper, Series 1, No 26/2005; C Greiber and R Setzer (2007), Money and housing – Evidence for the euro-area and the US, Deutsche Bundesbank Research Centre, Discussion Paper, Series 1, No 12/2007.

¹⁵ See M J M Neumann and C Greiber (2004), Inflation and core money growth in the euro-area, Deutsche Bundesbank Research Centre, Discussion Paper, No 36/2004.

sures that their historical experience of monetary policy and, above all, their detailed and specialised knowledge of their own countries find their way into the Governing Council's deliberations. Additionally, the intensive exchange of opinion guarantees that the Governing Council's decisions have a broad expert basis. Ultimately, the involvement of NCBs increases the acceptance of the Eurosystem's single monetary policy in all member countries.

The Monetary Policy Committee

The central working committee for monetary policy is the Monetary Policy Committee (MPC). It discusses issues relating to monetary policy and coordinates the preparation of analyses – for example, studies on monetary transmission, the monetary policy strategy, macroeconomic projections and the importance of national fiscal policy for the single monetary policy. In turn, a number of working groups in which experts from the ECB and NCBs regularly address specialist issues relevant to monetary policy also report to the MPC. These include the Working Group on Public Finance (WGPF), the Working Group on Forecasting (WGF) and the Working Group on Econometric Modelling (WGEM).

Examples of close cooperation among all central banks in the Eurosystem: the forecasting process...

An example of the close cooperation among central banks in the Eurosystem on monetary policy decisions is macroeconomic forecasting within the context of economic analysis, preparatory work for which is carried out twice a year by the relevant working groups of the MPC and presented to the Governing Council. Macroeconomic forecasts (Broad Macroeconomic Projection Exercise, BMPE) are prepared for the euro-area and the individual

euro-area countries in a multi-layered process. Based on an in-depth exchange of views in the MPC and the WGF, the first step is to define the underlying technical assumptions (on, for instance, the development of global trade, exchange rates etc). Experts at the NCBs then make projections for their countries based on various macroeconomic models and methods. Next, ECB staff compare these projections with their own findings on the national economies and pool them to create a joint forecast for the euro-area, which is then compared with the results of projections for the euro-area only. Once the various national and euro-area projections have been reconciled by experts in the Eurosystem, the last step is to prepare a final report for the current round of forecasts. Following discussion in the MPC, the report is presented to the Governing Council. This final report is then used as a basis for publishing the projection findings in the *ECB Monthly Bulletin*.¹⁶

A number of temporary Eurosystem research networks in which researchers from the NCBs and ECB (and sometimes from other central banks) join forces to address specific issues relating to monetary policy have been created since the beginning of European monetary union. Upon completion of their work, these "networks" report their findings to the MPC and the Governing Council. The first of these networks was the Monetary Transmission Network (MTN), which examined the effects

... and research networks such as the "Monetary Transmission Network", ...

¹⁶ For a graphical representation of the forecasting process, see Deutsche Bundesbank (2006), *Die Deutsche Bundesbank – Aufgabenfelder, rechtlicher Rahmen, Geschichte*, p 69 (in German only).

of monetary policy in the euro-area and its transmission channels. One of the MTN's key findings was that the effects of euro-area monetary policy on production and inflation do not vary greatly from those of other currency areas.¹⁷ Moreover, researchers found that the interest channel may be particularly important for monetary policy transmission in the euro-area. No major differences were found among monetary policy transmission processes in the various euro-area countries.

... the Inflation
Persistence
Network ...

The Inflation Persistence Network (IPN) examined inflation dynamics in the euro-area, including issues such as the extent to which temporary price shocks affect inflation over time. This aspect of inflation persistence is important from a monetary policy perspective as, if persistence is high, temporary price shocks can lead to longer deviations from price stability, and monetary policy initiatives, in turn, take longer to re-establish price stability. In the IPN, price indices as well as, to a large extent, micro price data were evaluated at producer and consumer level, and enterprises were asked directly about their price-setting behaviour. This approach highlighted major differences in the frequency of price adjustments between product categories. In the case of many services, in particular, prices are but rarely adjusted when general inflation rates are low. Estimated inflation persistence in the euro-area and the differences among euro-area countries proved to be moderate overall, however.¹⁸

... and the
Wage
Dynamics
Network

The current Wage Dynamics Network (WDN) is investigating the cyclical behaviour of wages and labour costs in order to gain a bet-

ter understanding of the driving forces behind inflation dynamics in the euro-area. To this end, among other things, surveys carried out at enterprises and studies of wage dynamics based on micro data are performed in the member states. The results – which are scheduled for presentation towards the end of the year – should help the Eurosystem better forecast future inflation developments and the role of the labour market in monetary policy transmission.

Implementation of monetary policy decisions

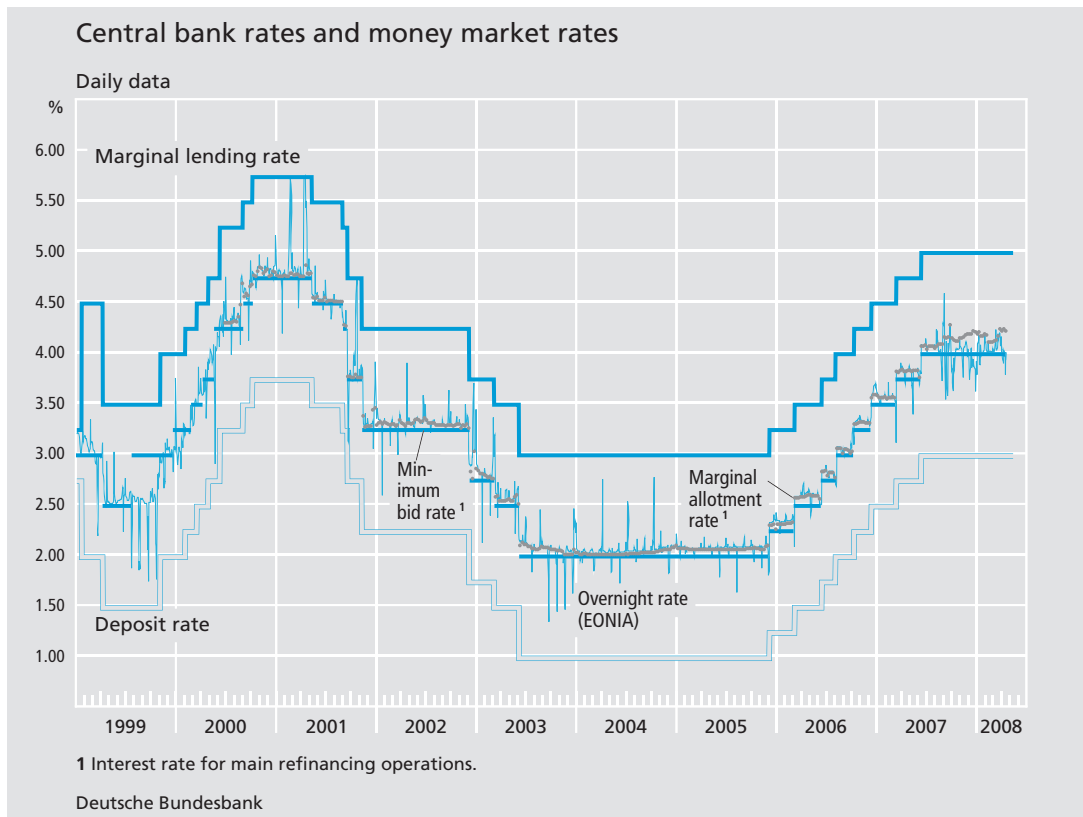
The monetary policy decisions made by the Governing Council are put into operation by the NCBs. This decentralised implementation of monetary policy has significant advantages since NCBs, as the direct counterparties and contacts of credit institutions in their countries, enjoy close market and customer proximity, which then filters through to the Eurosystem. This also allows the NCBs to inform their counterparties directly of the Governing Council's monetary policy decisions.

*Central
decisions,
decentralised
implementation*

The Eurosystem's monetary policy instruments consist of two core elements: min-

¹⁷ A summary of these findings can be found in I Angeloni, A Kashyap and B Mojon (2003), Monetary policy transmission in the euro-area – a study by the Eurosystem Monetary Transmission Network, Cambridge University Press.

¹⁸ For a summary of the micro-based findings of the IPN, see L Álvarez et al (2006), Sticky prices in the euro-area: a summary of new micro evidence, Journal of the European Economic Association, April-May, 4(2-3), pp 575-584. Findings relating to consumer prices can be found in E Dhyne et al (2006), Price setting in the euro-area: some stylized facts from individual consumer price data, Journal of Economic Perspectives 20(2), pp 171-192.



Money market operations as a starting point for monetary policy transmission

imum reserve requirements, which generate constant demand from banks for central bank money, and the Eurosystem's capability to provide (or absorb) central bank money to meet this demand. These instruments are implemented to influence the liquidity situation of banks – in other words, the volume of central bank credit available to them – in such a way as to ensure the Governing Council's overnight interest rate targets are met. This method of interest rate and liquidity management constitutes the operational starting point for the transmission processes of monetary policy initiatives in the economy.

Minimum reserve creates liquidity needs of banks

The minimum reserve requires credit institutions to maintain a certain amount of central bank credit on their NCB accounts. This ensures that, regardless of cash requirements,

banks always show sufficient demand for central bank money from a monetary policy perspective. At the same time, the minimum reserve provides a liquidity buffer, as credit institutions only need to meet their respective minimum reserve targets on average over the maintenance period as opposed to on a daily basis. In this way, they help stabilise the overnight interest rate (EONIA) by smoothing demand for central bank money and therefore effectively contain interest rate fluctuation on the money market. Since the minimum reserve requirement is subject to approximately the short-term lending rate, compliance with the minimum reserve requirement costs banks virtually nothing.

The ECB and NCBs also work together closely to forecast the current liquidity needs of

*Liquidity
forecasting by
ECB and NCBs*

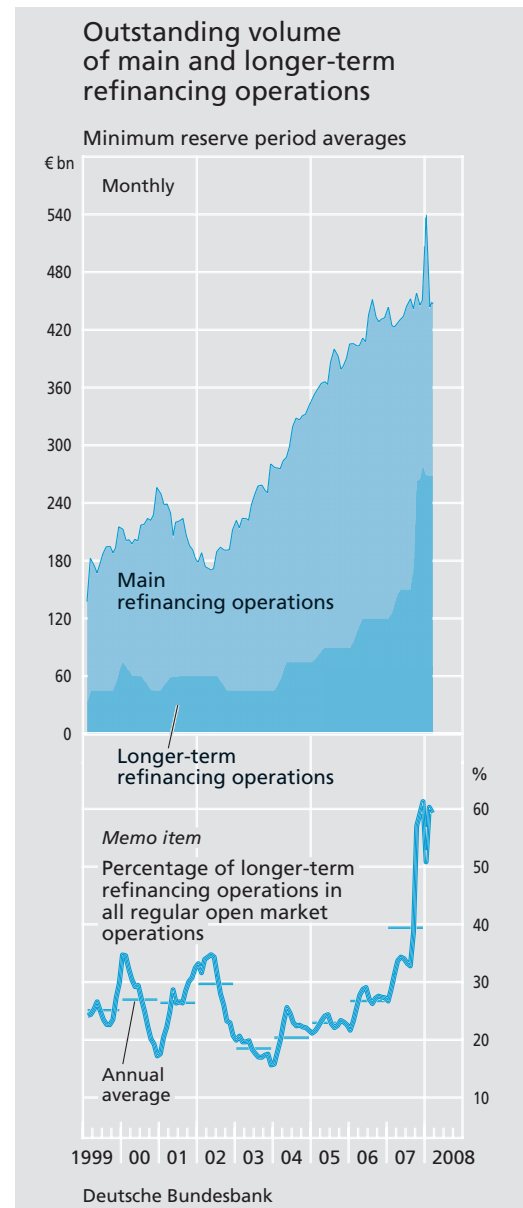
banks. "Autonomous factors" play a key role in this process. They include changes in the liquidity situation of the banking system which are caused, among other things, by cash demand from bank customers, transfers to public-sector accounts within the Eurosystem and cross-border transfers via the central banks on behalf of customers. If the autonomous factors show withdrawals of central bank liquidity, the Eurosystem must, in principle, take countermeasures to ensure that banks can meet their minimum reserve requirements on average in the maintenance period. In order to provide adequate central bank liquidity, the Eurosystem estimates expected liquidity needs continuously based on daily forecasts of autonomous factors prepared by the NCBs on the basis of their extensive experience and detailed knowledge of their counterparties.

*Reverse
transactions
for liquidity
provision ...*

Central bank money is generally provided and absorbed by the Eurosystem by means of reverse transactions. The respective NCB decides whether central bank money is provided as a term purchase of central bank securities with repurchase agreement or a term loan against pledged securities. Most of the Bundesbank's liquidity allocation transactions, for instance, take the form of lending against securities.

*... are chiefly
main
refinancing
operations ...*

The vast majority of short-term central bank money is provided by way of auction. A distinction is made between short-term main refinancing operations and longer-term refinancing operations known as "basic tenders". The former are carried out weekly and now have a term of one week and the latter



are usually announced on a monthly basis and have a term of three months. In both cases, banks bid for the amount of money they desire, specifying an interest rate ("variable rate tender"). Main refinancing operations are the central instrument used by the Eurosystem to manage the short-term money market rate and bank liquidity. When setting the key interest rate for the variable rate tender, which is currently used in main refinan-

cing operations, the Governing Council also defines the minimum bid rate for these transactions. The specific allotment volume is based on the current liquidity needs of the banking system, as determined by a liquidity forecast.

...or basic tenders

With basic tenders, in contrast, the Eurosystem allocates an unannounced volume without specifying an interest rate floor by defining an approximate minimum bid rate. This method ensures that the allotment rate is an interest rate set by the market alone.

Fine-tuning operations

Moreover, the Eurosystem can carry out what are known as fine-tuning operations, particularly with a view to quickly rectifying liquidity imbalances. These operations are only carried out with a relatively small group of banks on the money market so that liquidity can be provided or withdrawn on the same day.

Standing facilities

Finally, the Eurosystem instruments also include two standing facilities which are available to banks: the marginal lending facility allows banks to raise overnight loans based on their securities held at the central bank, and the deposit facility allows them to deposit central bank money in the Eurosystem overnight at interest. The interest rates applicable to both usually form a symmetrical corridor around the minimum bid rate on main refinancing operations: the interest rate for the marginal lending facility constitutes the ceiling and the interest rate for the deposit facility the floor for EONIA.

Since the beginning of monetary union, a number of changes have been made to the

way in which the Eurosystem's monetary policy is implemented operationally. These changes mainly relate to the timing of the minimum reserve period, monetary policy meeting of the Governing Council and term of main refinancing operations as well as the type of securities which can be used for refinancing.

The minimum reserve period – regardless of the meeting schedule of the Governing Council – originally lasted from the 24th day of one month to the 23rd of the next, thus ensuring that any changes in the key interest rate became effective within the reserve period and during the term of the main refinancing operations, which was initially two weeks. Accordingly, the bidding behaviour of the Eurosystem's counterparties also depended on their interest rate expectations. If, for example, interest cuts were expected, banks would often underbid, which hampered liquidity management in the Eurosystem.

In March 2004, the maintenance period was therefore scheduled to coincide with the monthly monetary policy meeting of the Governing Council. Since, under normal circumstances, changes are not made to central bank interest rates outside this schedule of meetings, changes to interest rates for main refinancing operations and standing facilities now only take effect at the beginning of the new maintenance period. The additional step of shortening the maturity of the main refinancing operations from two weeks to one week means that there is no longer an overlap with the following reserve maintenance period. These measures led to a considerable

Changes in monetary policy implementation

Minimum reserve period and main refinancing operations ...

... scheduled to coincide with the monetary policy meeting of the Governing Council

reduction in the extent to which expectations of interest rate changes affect the bidding behaviour of banks in main refinancing operations.

*Collateral
framework ...*

Central bank collateral for Eurosystem lending was divided into two tiers at the beginning of monetary union. Tier one consists of marketable debt instruments fulfilling uniform euro area-wide eligibility criteria specified by the Governing Council. Tier two consists of marketable and non-marketable assets which are of particular importance for the respective national financial markets and banking systems. The eligibility criteria for these assets are established by the NCBs, subject to the minimum eligibility criteria established by the ECB. The Bundesbank's tier two assets, for example, mostly comprise business loans, in line with its tradition of rediscount business.

*... was
standardised
in 2007*

Amidst growing integration of the European financial markets, the banks' intensified cross-border activities and the aim of fostering transparency and a level playing field between the Eurosystem's counterparties, the two-tier collateral framework was replaced on 1 January 2007 by a single list. The suggestions of market participants, which were collected in a public consultation process beforehand, were also taken into account. The Eurosystem has considerably extended the spectrum of eligible assets, in particular, by including euro-denominated debt instruments from issuers in the USA, Japan, Canada and Switzerland and accepting bank loans as collateral throughout the euro-area.

The Governing Council's decisions regarding the actual form and application of monetary policy instruments are also prepared in committees and working groups in close cooperation among all central banks in the Eurosystem. This ensures that the expertise of all participating countries flows into decisions on the practical implementation of monetary policy. This is particularly true of the broad and extensive market knowledge of NCBs within the context of refinancing and creating currency reserves as a result of their direct business relationships.

The central working committee for the preparation of Governing Council resolutions on issues relating to monetary policy implementation is the Market Operations Committee (MOC), which comprises employees of the ECB and all NCBs in the Eurosystem. The MOC continuously evaluates the efficiency of the monetary policy framework and discusses issues of practical and technical relevance to the implementation of monetary policy. These include issues such as the adequate design of tenders, distribution of necessary refinancing volumes to the various refinancing instruments, definition of and risk control for eligible collateral and investment of ECB currency reserves. Like the MPC, the MOC also has a number of sub-committees such as the Working Group on Monetary and Exchange Rate Policy Instruments (WGME) and the Working Group on Operations Involving Foreign Reserve Assets (WGFR).

*Preparing the
practical
implementation
of monetary
policy...*

*... in particular,
in the Market
Operations
Committee of
the Eurosystem*

Summary

The Eurosystem can now look back on almost ten years of successful monetary policy. Despite repeated price surges originating in the global markets and tax-related inflation, the annual inflation rate has averaged at just above the stability mark of “below, but close to 2%”.

Both the monetary policy strategy and monetary policy instruments have proved their worth and, at the same time, are sufficiently flexible to function well, even in the face of change. The broad-based two-pillar strategy ensures that the Governing Council takes into consideration shorter-term and longer-term inflation risks in its monetary policy decisions. At the same time, the range of analytical tools in both pillars has been further improved and expanded. The monetary policy instruments work smoothly, a fact which has become even clearer in the recent months of financial market downturns following the tur-

moil on international financial markets. The Eurosystem has not yet had to adjust its operational framework in these difficult times. It has instead been able to use the various options available to it and, thanks to its broad collateral framework, react quickly, flexibly and effectively. For example, it provided more longer-term liquidity by way of additional basic tenders to support the forward-looking liquidity planning of its monetary policy counterparties and, through fine-tuning operations, promptly provided the banking system with the large volumes of liquidity it required in the short term.

Close cooperation among all participating central banks is a key component of the Eurosystem’s monetary policy. It guarantees that decisions are made on a broad and expert basis and that national experience and country-specific expertise are given due consideration. In this way, acceptance of monetary policy is also strengthened in Eurosystem countries.