

Come with me to the Eurosystem

Alexander Jung, Francesco Paolo Mongelli and Philippe Moutot ¹

8 May 2008

Abstract

The ECB's monetary policy has received considerable attention in recent years. This is less the case, however, for its regular monetary policy preparation and decision-making process. This paper reviews how the factors usually considered as critical for the success of a central banking system and the federal nature of the Eurosystem are intertwined with its overall design and the functioning of its committee architecture. In particular, it examines the procedures for preparing monetary policy decisions and the role of the decision-making bodies and the committees therein. We suggest that technical committees, involving all national central banks (NCBs), usefully contribute to the regular processing of a vast amount of economic, financial and monetary data, as well as to the consensus building at the level of the Governing Council. A federal organisational structure, including a two-tier committee structure with the Executive Board taking the lead in preparing the monetary policy decisions and the Governing Council in charge of the decisions with collective responsibility for them, as well as committee work at the various hierarchical levels, contributes to the efficiency of the ECB's monetary policy decision-making, and thereby facilitates the maintenance of price stability in the euro area. A fully-fledged committee structure has also contributed to the smooth integration of non-euro area Member States into the Eurosystem's monetary policy decision-making process.

JEL classification: E42, E58 and F33

Keywords: Monetary policy committee, European economic and monetary integration, Central banks and their policies.

¹ For their comments and suggestions, we would like to thank Hans-Joachim Klöckers, Frank Moss, Georges Pineau, Koenraad De Geest, Ad van Riet, Bernhard Winkler, Jean-Pierre Vidal, Luigi Ferrara, Elisabeth Keable, an anonymous referee and several other colleagues. Juliette Cuvry and Clara Young provided excellent assistance. We remain responsible for any errors or omissions; the views expressed are our own and do not necessarily reflect those of the ECB.

Introduction: monetary policy by committees

Understanding the monetary policy process is key for understanding monetary policy decisions. Since former Federal Open Market Committee (FOMC) Governor Meyer (1998) gave the speech “Come with me to the FOMC”, explanations of the regular decision-making by monetary policy-makers have become more frequent.² The present study can be seen as following these contributions. It aims to explain the Eurosystem’s monetary policy process and the role of decision-making bodies and Eurosystem committees therein.

One of the central debates in monetary policy decision-making is whether committees³ or individuals make better monetary policy decisions. For a long time and contrary to what was implemented in practice by successful central banks such as the US Federal Reserve and the Bundesbank, it was widely believed in academia that individuals are best placed to make monetary policy decisions. Simple monetary policy rules enable individual policymakers to make the right decisions in the presence of uncertainty. For instance, Milton Friedman’s (1959) famous monetary policy rule was the first attempt to create a quasi auto-pilote for monetary policy decision-making. This was later followed by the nowadays very popular Taylor rule (see Taylor, 1993). Such rules, if successfully applied, could de facto diminish the role of central bank experts and committees in the monetary policy process. This is less the case, if policymakers apply an inflation-targeting rule (see Svensson, 1999, and Clarida, Gali and Gertler, 1998), which requires the availability of a detailed inflation forecast together with policymakers’ judgement. Nowadays the view prevails that monetary policy should have a mix of rule-based and discretionary elements.

Committees have a comparative advantage in capturing the plurality of views and in information gathering, and, in ensuring consistency across regions and time. The academic world therefore favours monetary policy decision-making by committees. Blinder (2004) describes “*monetary policy by committees*” as a “quiet revolution” in central banking. In the same spirit, Vandenbusche (2006) suggests that committees could enhance the effectiveness of monetary policy. In her analysis of the interaction process followed by a committee to set interest rates, Gerlach-Kristen (2005) confirms that groups are better able than individuals to form a view of the appropriate policy under economic uncertainty. Fry et al. (1999) survey central bank practices and find that nowadays a large number of central banks use some form of committee structure when setting monetary policy. This behaviour is in line with the suggestions of the more recent literature that interest rates would be far better set by a committee that looks into a wide range of indicators. Theoretical considerations on the functioning of committees also support the delegation of monetary policy decisions to a committee.⁴ There is a growing consensus that group decisions – such as those taken by a monetary policy committee – outperform individual decisions (see Blinder, 2004, and Maier, 2007). First, decisions made by a committee are usually better informed than when made by a single central bank governor. This hypothesis seems plausible, but difficult to verify empirically due to the lack of comparable empirical data. Blinder and Morgan (2000 and 2007) carry out “laboratory experiments” on a large sample of Princeton University students to test whether groups make monetary policy decisions differently. With the limitations of such experiments in mind, they find that, provided that groups do not reach decisions too easily or too quickly, their performance would be at least as good as the average of their individual members. A similar exercise by Lombardelli, Proudman, and Talbot (2005) suggests that committees

² See the speeches by FOMC Governor Olson (2004), by Bank of England Governor King (2007), and the Bank of Japan’s Deputy Governor Muto (2007). Scheller (2006) provides a history of the Eurosystem.

³ According to Maier (2007) a monetary policy committee (for the Eurosystem this term applies to the main decision-making body, the Governing Council) is the body in charge of monetary policy decisions and characterises them as “a group of people sharing information and taking a decision together, on the basis of the information reviewed (and revealed).” Committee members need to gather and share information, and then evaluate it together in order to make a monetary policy decision. The structure of the committee and its rules of procedure are key constitutional features that can facilitate the decision-making process.

⁴ The Condorcet’s jury theorem provides a basic rationale for this behaviour: it says that, because larger committees have more informed members, they are more likely to make decisions that are close to the “optimal” one (as opposed to smaller committees that have fewer informed members). In a normative sense, the theorem can be seen as suggesting to increase the number of committee members in order to move towards the best possible decision in the circumstances. In an extreme case scenario, however, this would imply a committee with an infinite number of members, which would probably not work efficiently in practice. In this respect, some of the rather strong assumptions underlying the theorem may be violated. For instance, committee members may not obtain policy relevant information at zero cost. Decision-makers face constraints in processing a large amount of information. They must rely on technical contributions and expertise from their substructures. To this end, the effectiveness of the work by committee substructures is critical for the timely availability and the high quality of the information needed for making monetary policy decisions.

perform much better than the average of each individual member. Moreover, the possibility to learn about the underlying model can improve decision-making in a group context. Second, committee deliberations may reflect a broader picture of the possible interpretations of the information available at the time of the decision (heuristics). Committee members have different skills, backgrounds and preferences, and may therefore contribute different heuristics to the discussion. Since a committee pools the views of all members, it is less likely to adopt extreme positions or to be dominated by individuals. Third, committees may be more transparent in the monetary policy decision-making process than individual decision-makers.⁵ For monetary policy decisions to be transparent, it is necessary to determine the degree of unanimity sought by the committee in pursuit of its main goals. A voting procedure should aim to reveal the “true” preferences of committee members and the extent of agreement on a certain decision. Fourth, decision-making by committees can be understood as a means of buying insurance against pressure from the government or the media which would aim to influence monetary policy decisions. Fujiki (2005) argues that monetary policy decision-making by a committee may provide more incentive to stabilise inflation in line with the announced goals and in line with the notion of a conservative central banker whose decisions aim to increase his/her reputation as an inflation fighter (see Rogoff, 1985). In this respect, long terms of office can enhance decision-makers’ personal independence and give them the necessary incentive to conduct a sustainable policy over the medium term, while at the same time discouraging opportunistic behaviour.

Today, with the prominent exception of the Reserve Bank of New Zealand and a few other central banks with autocratic structures, most central banks in the world rely on a committee rather than on an individual to make monetary policy decisions. Assigning monetary policy decisions to a committee fully reflects European tradition. In the case of the ECB, the genuine monetary policy committee is a decision-making body, the Governing Council (whereas the term Eurosystem MPC refers to a technical committee comprising high-level experts from the ECB and the NCBs). A committee’s ability to process information, as well as the quality of its decisions, may depend on the skills of its individual members and its advisory staff. Under certain circumstances, committees could fall into the trap of “groupthink” (see Sibert, 2006), i.e. in striving for consensus, members would rule out other potentially viable policy options. Such behaviour is particularly costly when a committee’s credibility is at stake. It will also depend on the nature of the decision-making process and the practical way the discussion is organised. In particular, whether a set of members (the hub) has been able to discuss the decision beforehand and whether and when they are able to put a decision to the vote of the entire committee. If the hub has already discussed the decision, the decision may be subject to an intrinsic judgement bias in the sense that there is a difference in the accuracy of judgement between the hub and the spokes. Berk and Bierut (2007) find that the adoption of appropriate agenda-setting techniques – such as to vote on interest rate proposals at the end of the monetary policy discussions – could be a way of avoiding the possible crowding out of relevant information in monetary policy committees’ discussions.

I. Identifying best practice in monetary policy decision-making

A recent survey by Nelson (2008) suggests that policymaking at various central banks has become more similar. There remain, however, meaningful differences in the preparations and procedures that can be related to past choices at those central banks. In order to assess the choices made in setting up the decision-making bodies of the ECB, an international comparison of practices adopted by monetary policy committees may be helpful. When delegating responsibility for making monetary policy decisions to a committee, a number of elements, such as the committee size, the appointment procedures, a voting rule, and the channels for announcing policy decisions, need to be agreed. We survey existing practice by looking at nine other central banking systems that have shaped the central banking landscape in recent years, and highlight the main elements of monetary policy-making by committees. Table 1 provides an overview and includes the choices made by the Eurosystem.

Committee size

Recent decades evidence a trend towards the creation of larger committees in charge of monetary policy decisions. Obviously, decision-making by committees, particularly by larger ones, is not always advantageous. For instance, the exchange of information in groups may not be perfect when information acquisition has costs (bearing in mind that information is a public good), and there may be incentives for committee members to free ride. Maier (2007) argues that the publication of (attributed)

⁵ This switch to collective decision-making by a committee is the subject of ongoing research; see Blinder (2004), Blinder and Wyplosz (2004), and Fujiki (2005) for an analysis and a survey of the various reasons for this phenomenon.

minutes of internal committee debates could limit free riding, however, at the cost of reducing the confidentiality of the deliberations and this may result in sterile discussions. In addition, committee members may feel they have to hide their “true” preferences and thus redraft the minutes to make them less informative. Even when free riding is not an issue, committee members may engage in strategic behaviour in order to exploit information asymmetries. If there are too many members in a committee, an individual member may feel that his/her vote would only marginally influence the committee’s decision, and thus instead of revealing his/her “true” preferences, may decide to engage in logrolling (see Bernholz, 1974). In addition to the heterogeneous preferences of committee members, agreement on decisions may become complex, more time consuming and less optimal.

Often larger central banks prefer to have larger committees in charge of monetary policy. In practice, a range of between 6 and 19 voting members covers most central banks in our sample.⁶ It is difficult to draw robust conclusions on the “optimal size” of a monetary policy committee (see Fujiki, 2005). Overall, research suggests that the benefits of obtaining better information through a larger number of committee members have to be balanced with the higher costs of collecting and processing the information. Berger et al. (2003) find that larger committees are typical of larger and more heterogeneous countries with strong democratic institutions, flexible exchange rates and independent central banks. In a recent survey, Erhart and Vasquez-Paz (2007) make an attempt to specify the “optimal” size of a monetary policy committee. While this is a difficult undertaking, a number of factors may explain it, such as information uncertainty, size of the currency area and the degree of economic stability. Based on these criteria, the “optimal” size of the Governing Council would be approximately 18 members, and for most other monetary policy committees the “optimal” size would be roughly 5-9 members.⁷

Appointment of members

Independent central bankers have proven to perform best in terms of maintaining price stability. Making policymakers independent from political pressure leads to lower inflation in the longer term and strengthens the central bank’s commitment to price stability in the minds of the public. In their seminal analysis, Barro and Gordon (1983) suggest that there is an inflation bias inherent in discretionary monetary policy. A binding central bank constitution can credibly guarantee its independence, thus sending a clear signal to the public that it can trust the central bank. Monetary policy decisions are taken without bowing to any political desire for more inflation in the short term. In addition, by assigning responsibility for the maintenance of price stability exclusively to the central bank, there is an institutional framework in place that assigns clear-cut responsibilities to individual policy actors, thus providing a transparent framework that makes the central bank accountable to the public. The empirical study by Alesina and Summers (1993) confirmed the beneficial influence of central bank independence in the pursuit of price stability. In their analysis of several industrial countries, they provide a surprisingly robust finding that independent monetary policy authorities generally perform better in terms of maintaining price stability than dependent ones.⁸

⁶ In this respect an international comparison by Berger (2006) finds that, for a sample of selected developed economies, technical committees that gather information are on average larger than committees in charge of monetary policy decisions.

⁷ Erhart, Lehment and Vasquez-Paz (2007) suggest that monetary policy committees should include at least five members. They find that central banks with less than five committee members are subject to higher inflation volatility.

⁸ A few studies (see, for example, Posen, 1993) have challenged these results on three grounds. First, the reliability and validity of indices for central bank independence have been questioned. Second, the empirical relationship between central bank independence and inflation would be sensitive to the sample period employed in the estimation, as well as to the use of active control variables. Third, as in the case of the Bundesbank, its good inflation performance was explained mainly by the public’s support for its price stability-oriented policies. By contrast, recent studies by Arnone et al. (2007) and Moutot et al. (2008) confirm the beneficial impact of central bank independence on price stability.

Table 1: International comparison of monetary policy committees

CENTRAL BANK ELEMENTS	EUROSYSTEM	NORGES BANK	SVERIGES RIKSBANK	SWISS NATIONAL BANK	BANK OF ENGLAND	RESERVE BANK OF AUSTRALIA	BANK OF CANADA	BANK OF JAPAN	RESERVE BANK OF NEW ZEALAND	FEDERAL RESERVE SYSTEM
Name of the monetary policy committee	Governing Council	Executive Board	Executive Board	Governing Board	Monetary Policy Committee (MPC)	Reserve Bank Board	Governing Council	Policy Board	Governor	Federal Open Market Committee (FOMC)
Size of the committee										
Voting members	21	7	6	3	9	9	6	9	1	12
Other members	0	5 are external members	0	0	4 are external members	6 are external members	0	0	0	7 non-voting presidents
Appointment of members										
Appointment by	Heads of State or Government (hearing by Parliament)	The King	General Council	Federal Council	The Chancellor	The Treasurer	Minister of Finance	The Cabinet	Minister of Finance	the President (confirmation by Senate)
Terms of office	8 years, non-renewable for EB members, minimum 5 years for NCB governors, renewable	6 years for full-time members, 4 years for other members, renewable	6 years, non-renewable	6 years, renewable	Fixed term up to 5 years, renewable	7 years for full-time members, 5 years for other members, renewable	7 years, renewable	5 years, renewable	Fixed for the length of a Policy Target agreement, renewable	14 years, non-renewable or unexpired term, renewable up to 14 years
Voting rule										
Decision rule	Consensus	Consensus	By majority, governor has casting vote	Consensus	By majority	By majority	Consensus	By majority, chairman has casting vote	By the governor	By majority, chairman has casting vote
Collective responsibility	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES
Announcement of decisions										
Press release	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Minutes published?	NO	NO	YES	NO	YES	YES	NO	YES	NO	YES
Voting records published?	NO	NO	YES	NO	YES	NO	NO	YES	YES, implicitly	YES

Conservative central bankers who are not subject to changes in preferences by the electorate offer advantages in terms of stabilising the economy and in anchoring inflation expectations. For instance, Waller (1989) shows that extending the term of central bankers beyond the regular election cycle can help to reduce output variability. However, long-term appointments of central banks has potential costs in the presence of more permanent shocks to the citizens' preferences which could cause a decoupling of citizens' demand for price stability from its supply by the central bank (see Waller and Walsh, 1996). Against this background, contracts of monetary policy committee members should be longer-term. According to the "Thomas Becket effect",⁹ new members of a committee often change their behaviour once they have been appointed. In a central bank context, this would mean that peer pressure and the objective function of the central bank in a context of central bank independence would make new members as adverse to inflation as older members. This effect is widely acknowledged to apply to individual decision-makers, and it may similarly apply to a committee that has collective responsibility for monetary policy decisions (see Eijffinger and de Haan, 1996). This behaviour is of particular relevance to monetary policy committees because appointments are often made from the outside. New appointments may generate news for financial markets to the extent that they contain information about possible changes in the preferences of the committee and the way discussions will be conducted (see Kuttner and Posen, 2007). Financial markets could challenge the credibility of the central bank, and, in the aftermath credibility-effects may arise when markets anticipate a change in the composition of the "hawks" and "doves" of the monetary policy committee (see Cukierman and Meltzer, 1986).

In practice, terms of offices are usually about six years (i.e. longer than the electoral cycle) and can be renewed. In the case of the Reserve Bank of New Zealand, the appointment of the central bank governor is linked to the validity of the policy target agreement (PTA), which is five years. Members of the Executive Board of Sveriges Riksbank cannot be reappointed. Members of the decision-making bodies are often appointed by a high-ranking government official, typically the Minister of Finance. In some cases, hearings are conducted by a democratic authority in order to confirm that the candidate has the necessary qualifications for the post. In the case of the Eurosystem, the Statute of the ESCB stipulates long terms of office as a rule: a minimum term of office of five years for NCB governors, which is renewable, and a non-renewable term of office of eight years for the members of the Executive Board.¹⁰ These provisions were designed to strengthen the personal independence of the decision-making bodies.

Voting rule

Committees may adopt different styles and voting rules in seeking a consensus, because of factors that are related to cultural aspects of the society, traditions and common values, and not just the size of the committee. A comparison of monetary policy committees by Blinder (2004) suggests that the various rules of procedures of these committees imply different degrees of transparency when voting on monetary policy decisions. Accordingly, a *collegial committee* prizes solidarity and strives for group ownership of its decisions. The chairperson forges consensus and, where possible, seeks to achieve unanimity in the decision-making process. Conversely, in an *individualistic committee*, any differences of opinion are voiced and conclusions are reached by majority voting, if necessary. Hence, individual members are allowed to express their preferences and do not always have to embrace the group's decisions. With reference to the case of New Zealand, Blinder (2006) suggests that a *single governor* can be as transparent or intransparent as a monetary policy committee.

Designing a voting system for a systematic decision-making process is a way to ensure timely monetary policy decisions in a committee. The most common voting rules for monetary policy committees are consensus and majority voting, and the rule is binding for all members of the committee. Both voting systems have advantages and disadvantages (see Table 2), and there may be important trade-offs in choosing a voting system for the monetary policy committee. Smidkova (2003) suggests that the more the voting system helps to deal with uncertainty, the less transparent it may ultimately be for external

⁹ Thomas Becket (born in 1118) was chancellor and a friend of King Henry II before becoming Archbishop of Canterbury in 1162. When appointed, he changed his attitudes concerning the relation between state and church and had a number of arguments with the King. He was made individually accountable for his non-opportunistic decisions – i.e. he was murdered by followers of Henry II and later canonised by the Vatican.

¹⁰ When the ECB was established in 1998, a system of staggered terms of office was applied for appointments to the Executive Board in order to ensure continuity. The first ECB President was appointed for eight years and the first Vice-President for four years. The other four members were appointed for five, six, seven and eight years respectively.

observers. Majority voting ensures the selection of a policy alternative after each meeting, the outcome may not fully reflect the “true” preferences of the committee as a whole. By contrast, consensus voting is a better reflection of the committee’s preferences and is useful in the pursuit of a medium-term orientation, but agreement may take time. Sometimes, depending on the shock that hits the economy, too much focus on consensus may risk delaying necessary monetary policy decisions.

Consensus voting has enjoyed increased popularity in recent years, because it is consistent with the fact that the committee has collective responsibility. According to this rule, it is assumed that all members agree with the decision in the sense that no member strongly disagrees with it. By contrast, majority voting is based on the explicit agreement of the majority of committee members present at the committee meeting. According to this rule, individual members may express their dissent, but ultimately they have to accept the majority decision. Most committees that pursue majority voting have an uneven number of committee members and/or give the chairperson the casting vote in the event of a tie. While the Bank of England stresses the accountability of each individual member of its Monetary Policy Committee to the public, most other central banks rely on collective accountability of decision-makers. In the case of the Eurosystem, Article 10.2 of the Statute of the ESCB envisages majority voting by the Governing Council on monetary policy matters, but, in practice, the ECB pursues consensus voting in line with the collegial responsibility of the Governing Council (see ECB, 2002).

Table 2: Advantages and disadvantages of voting systems

	Board members reach consensus (example: Eurosystem)	Board members vote individually (example: Federal Reserve System)	Governor decides (example: Reserve Bank of New Zealand)
Description	Policy-makers must reach consensus about the best policy reaction., They consider all available information + their individual judgements + the judgements of other board members	Policy-makers vote on the basis of all available information, including expert views on probabilities and pay-offs, + their individual judgements	Governor decides on the basis of all available information, including expert views on probabilities and pay-offs, + his own judgement
Major advantages	Indirect disclosure of pay-offs and probabilities to other decision-makers and consensus are respected methods for dealing with uncertainty	Averaging of probabilities and pay-offs helps to deal with uncertainty	Easy and transparent (pay-offs and probabilities of the Governor are disclosed indirectly)
Major disadvantages	Time consuming; Lower transparency due to pay-offs and probabilities not being disclosed externally (policy bias can be indicated to compensate)	Differences between board members’ opinions are only averaged. If the voting pattern is not announced, transparency not so high	If experts are not valuable partners in the policy debate, no other method for dealing with uncertainty is added in the second stage of the decision-making process

Source: Adapted from Smidkova (2003).

Announcement of decisions

In communicating with the public, transparency enhances monetary policy effectiveness. Consequently, monetary policy committees today spend more time communicating about their policy objectives, the monetary policy framework, and their assessments of the current outlook. Generally speaking transparency means that the central bank provides the general public and the markets with all relevant information on its strategy, assessments and policy decisions as well as its procedures in an open, clear and timely manner. It helps the public to gain a better understanding of the monetary policy process and the intentions of policy-makers. In this respect, potentially conflicting dimensions of transparency, namely honesty, clarity and openness can arise (see Winkler, 2000, and Issing, 2005). Accordingly, a

more open approach to monetary policy communication will only enhance transparency, if it clarifies monetary policy intentions. For instance, several central banks have increased their guidance to markets on future interest rates by either commenting on market expectations of future policy rates or by announcing monetary policy-makers' preferred future interest rate path. However, such measures are only effective, if the public understands the conditionality of the policy-makers' commitment to the economic outlook. Hence, an increase in central bank transparency will not always improve a central bank's performance in stabilising inflationary trends in line with their objective. If a central bank keeps inflation on target, it enjoys full credibility and so transparency no longer exerts a measurable effect on inflation variability. Demertzis and Hughes Hallett (2007) suggest that an increase in central bank transparency would not affect the average levels of inflation and output, but would reduce inflation and output gap volatility. Moutot et al. (2008) show for a sample of industrialised countries that given the achieved high level of transparency, further progress in this regard is unlikely to have an additional beneficial impact on reducing inflation variability.

All central banks monitored agree on the importance of announcing monetary policy decisions in a timely and comprehensive manner. Central banks have "standard" communication tools at their disposal which have proven to be effective, such as press conferences, press releases and statements, bulletins or inflation reports and speeches by policymakers. While press releases are the preferred way of announcing monetary policy decisions, the practice of holding regular press conferences after the policy meeting is gaining popularity (e.g., the recent example of Sveriges Riksbank). In order to explain the arguments underlying the decision to the general public in more depth and in a timely manner, additional tools are useful. For instance, regular official publications, such as Inflation Reports or Quarterly Bulletins are standard. However, these communication tools have limitations in that they do not reveal individual policy-makers' assessments of the economic outlook. In this respect, opinions differ regarding the potential usefulness of publishing minutes (which is normally delayed by a few weeks) and voting records. The Federal Reserve System, the Bank of Japan, the Bank of England and Sveriges Riksbank provide this information together with voting records, but some other central banking systems (including the Eurosystem) do not. The Governing Council of the ECB keeps the minutes of the meetings confidential, but publishes the outcome of its deliberations immediately after the first meeting each month.¹¹

II. The Eurosystem's two-tier committee structure

Since 1 January 1999, the Eurosystem, a supranational central banking system, is responsible for the single monetary policy in the euro area.¹² It comprises the European Central Bank (ECB) and the national central banks (NCBs) of those EU Member States that have adopted the euro (and that make up the *euro area*). It is led by a decision-making body, the Governing Council of the ECB, which formulates the monetary policy of the euro area and sets the necessary guidelines for the implementation of its decisions.¹³ A federal organisational structure, including a two-tier committee structure comprising two main decision-making bodies, the Executive Board and the Governing Council, as well as committee work at the various hierarchical levels, is at the heart of monetary policy decision-making. Monetary policy in the Eurosystem is based on a collective decision-making system with the ECB leading the preparations of the monetary policy decisions (see Articles 107 and 110 of the Treaty). In order to characterise the relationship between the ECB and the NCBs, the President of the ECB, Jean-Claude Trichet, has frequently used the metaphor of a sports team. The ECB acts as the "captain of the team", and NCBs are team members.

¹¹ Article 10.4 of the Statute of the ESCB does not allow the ECB to release the minutes of its meetings or voting records, and instead states: "The proceedings of the meetings shall be confidential. The Governing Council may decide to make the outcome of its deliberations public".

¹² Its individual national central banks were established much earlier: for example, the Banque de France was established in 1800, De Nederlandsche Bank in 1814, the Nationale Bank van België/Banque Nationale de Belgique in 1850, the Banco de España in 1856, the Banca d'Italia in 1893 and the Deutsche Bundesbank in 1957.

¹³ The NCBs from those EU Member States that do not yet belong to the euro area participate in the European System of Central Banks (ESCB) but not in the Eurosystem. To help the reader we sometime use the term Eurosystem where the Treaty mentions the ESCB: that because in practice Eurosystem is meant.

Decision-making bodies and technical committees

The *Governing Council* consists of the currently 15 governors of the euro area NCBs and the six members of the Executive Board. Its main responsibilities include formulating monetary policy for the euro area, as well as adopting the guidelines and taking the decisions necessary to ensure the performance of the tasks entrusted to the Eurosystem. It is, however, also the decision-making body for other Eurosystem tasks.¹⁴ When making monetary policy decisions, the Governing Council acts by simple majority. Each member of the Governing Council has one vote; in the event of a tie, the President shall have the casting vote (see Article 10.2 of the Statute of the ESCB).¹⁵ This democratic element of monetary policy aims to better anchor legitimacy of monetary policy in the regions, to facilitate communication with a heterogeneous public and to ensure that the regions participate appropriately in monetary policy decision-making. In practice, however, the Governing Council practices consensus voting. The size of the Governing Council depends on the number of euro area countries. Article 10.2 of the Statute of the ESCB limits the maximum number of voting rights at 21 (i.e. 15 governors and the six Executive Board members should have a voting right). A rotation system will start operating once the number of euro area countries exceeds 15 unless the Governing Council decides with a two-thirds majority to postpone the start of the rotation system until the number of governors exceeds 18.¹⁶ The aim of this system is to ensure even representation between small and large countries in monetary policy decision-making and an efficient decision-making process in a large committee. It is consistent with the Maastricht Treaty that specifies the inclusion of NCB governors in the Governing Council, but ultimately leaves open the national composition of the decision-making bodies. As underlined by Wim Duisenberg, the first President of the ECB, Members of the Governing Council “do not represent their countries, they are forbidden to seek or accept instructions from any private or public body” (see Duisenberg, 2001).

The *Executive Board* of the ECB consists of the President, the Vice-President and four other members. Its main task is to prepare the decisions of the Governing Council of the ECB and implement them thereafter. The Executive Board prepares the meetings of the Governing Council, implements monetary policy in accordance with the guidelines and decisions laid down by the Governing Council and, in so doing, gives the necessary instructions to the euro area NCBs. The Executive Board is responsible for the current business of the ECB and assumes certain powers delegated to it by the Governing Council, which may include powers of a regulatory nature. The Executive Board also exercises organisational and managerial powers regarding the ECB and, in consultation with the Governing Council, decides on the internal structure of the ECB. The Executive Board represents the “hub” (i.e. the centralised component) and the NCB governors the “spokes” (i.e. the regional component) of the monetary policy committee. In such systems, the hub specialises in preparing interest rate decisions and developing an infrastructure that aggregates information on the overall macroeconomic conditions in the currency area. This sharing of tasks is appropriate for managing the potential trade-off between timeliness in preparing monetary policy decisions and regional participation, and helps to avoid any unnecessary duplication of tasks.

Eurosystem committees comprising experts from all NCBs and the ECB are not in charge of monetary policy decisions. According to the Rules of Procedure of the ECB, the Eurosystem’s committees play an advisory role, whereby they assist in the work of the decision-making bodies of the ECB by

¹⁴ As specified in Article 105 and 106 of the Treaty, Eurosystem tasks include conducting foreign exchange operations, managing the official foreign reserves of the Member States, and promoting the smooth operation of payment systems as well as issuing banknotes, collecting and compiling statistics, contributing to prudential supervision and financial stability, and international and European cooperation. In addition, Article 47 of the Statute of the ESCB constitutes several ESCB tasks for which the General Council assumes responsibility, i.e. mainly tasks that have been carried over from the EMI (e.g. ERMII, convergence report) and which are linked to euro area enlargement.

¹⁵ Article 10.2 of the Statute of the ESCB states: “Each member of the Governing Council shall have one vote. As from the date on which the number of members of the Governing Council exceeds 21, each member of the Executive Board shall have one vote and the number of governors with a voting right shall be 15. The latter voting rights shall be assigned and shall rotate ... Save as otherwise provided for in this Statute, the Governing Council shall act by a simple majority of the members having a voting right. In the event of a tie, the President shall have the casting vote.”

¹⁶ For details see ECB (2003), Gros (2003), Ulrich (2004), and Bénassy-Quéré and Turkisch (2007).

providing expert and/or technical advice to the Executive Board and the Governing Council. All decisions regarding the committee structure of the Eurosystem fall within the competence of the Governing Council. The Executive Board is in charge of deciding the internal structure of the ECB (i.e. the number of functional units and organisational principles); similarly the NCBs are responsible for setting up their internal structures.¹⁷

The widespread use of committees in many areas for which technical expertise is needed has contributed to sharing information in the Eurosystem and to coordinating the work among NCBs.¹⁸ Three main rationales can be given in order to explain why the Eurosystem's organisation strongly relies on committees. First, the ECB constitutes only a relatively small share of the Eurosystem's total staff, and considerable expertise is available at the national level in all areas related to the ECB's monetary policy. Second, most NCBs have been in existence for much longer than the ECB. A committee structure¹⁹ is thus useful, as it ensures consistency with past policies and across countries, thereby securing a harmonious level playing-field. Third, committees provide fora, in which best practices and technical expertise can be shared, and they foster cooperation within the Eurosystem at the staff and management level. Committee work at various levels enhances the effectiveness of the Eurosystem's diagnostic and policy-making processes in terms of knowledge transfer, learning by doing and consensus building, to name just a few. All committees process a significant amount of data and information at the aggregate and disaggregate level and carry out a wide variety of technical analyses and research that form the basis of many documents for the decision-making bodies (i.e. the Executive Board and the Governing Council). Hence, they allow the dispersion of information and research across the Eurosystem at an early stage and ensure that policy-makers have prior access to information available in the Eurosystem ahead of the Governing Council meeting.

Committee structure

The basic committee structure was established by the Committee of Governors and extended by the European Monetary Institute (EMI). It formed the basis for the Eurosystem's architecture for defining working relations and taking decisions in the system. The ECB's committee structure evolved in line with the changing role of the institution from pure monetary policy coordination among EU Member States to decision-making on the single monetary policy for the euro area as a whole. At present, there are committees covering most functional areas of the work of the Eurosystem (see Figure 1).

These include the Monetary Policy Committee (MPC), the International Relations Committee (IRC), the Market Operations Committee (MOC), the Statistics Committee (STC), the Payment and Settlement Systems Committee (PSSC), the Banking Supervision Committee (BSC), the Banknote Committee (BANCO), the Internal Audit Committee (IAC), the External Communications Committee (ECCO), the Legal Committee (LEGCO), the Accounting and Monetary Income Committee (AMICO), the Budget Committee (BUCOM), and the Human Resource Conference (HRC). In addition, these committees operate a variety of working groups or task forces. The number of committees has grown somewhat in

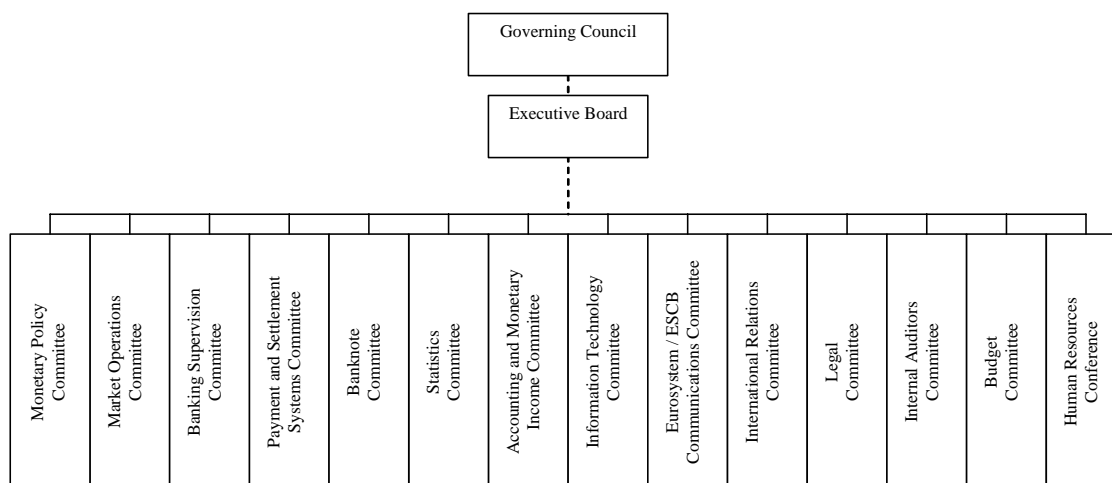
¹⁷ In order to avoid the duplication of tasks in the Eurosystem, the Governing Council may agree on guidelines that are binding for the ECB and the NCBs.

¹⁸ It is worth mentioning that in order to accomplish its task the Eurosystem has adopted other forms of cooperation that give NCBs the possibility to make their expertise available for the benefit of the system as a whole. For instance, this was the case in the further development of its payment infrastructure (TARGET2). In recent years, the Governing Council has also promoted several networks for the academic analysis of specific topical subjects, such as the Monetary Transmission Network, the Inflation Persistence Network and the ongoing Wage Dynamics Network. Such networks build on "coalitions" of NCBs and their experts with an interest in (and a willingness to contribute to) specific topics. Another network that has operated on a regular basis is the Heads of Research Network, the aim of which is to share information on reciprocal analytical and research agendas and to foster some form of cooperation on an informal basis.

¹⁹ It is, however, not feasible to involve entire committees in very specific discussions, which has led to the establishment of some substructures that assist the committees in their advisory role. For example, the Eurosystem's monetary policy committee is supported by the Working Group on Forecasting, the Working Group on Econometric Modelling and the Working Group on Public Finance. Furthermore, some committees make use of task forces, i.e. groups of central banking experts with a mandate to address specific issues and fulfil certain tasks within a set time frame. In the pyramidal committee structure of the Eurosystem, the higher level – in particular the Governing Council – usually agrees on the procedures, composition and main tasks of the subordinate level. The output of subordinate committees – once agreed at this level – is routinely communicated to higher-level committees as input for their deliberations via letters, reports, memos and various types of presentation, etc.

light of the additional tasks to be performed by the Eurosystem. For instance, HRC, IAC and ECCO were newly created to provide the Governing Council with expertise in the fields of human resources, internal governance and external communication respectively. The Monetary Policy Sub-Committee (MPSC) of the EMI made an important contribution to the preparation of the monetary policy framework and strategy of the ECB. When the ECB was founded, the tasks covered by the MPSC were split between the Eurosystem Monetary Policy Committee (MPC) and the Market Operation Committee (MOC). Today, the Eurosystem MPC assists the Eurosystem in terms of the single monetary policy and the exchange rate policy of the euro area.

Figure 1: The committee structure of the Eurosystem



Source: Adapted from ECB (2007b).

Regional diversity

A unique feature of the Eurosystem is its federal structure²⁰ whereby the decision-making bodies of the ECB and the Eurosystem's committees include members from each euro area country. Cultural and economic diversity is a specific feature of the euro area, which plays a role in all phases of the monetary policy decision-making process. The regional diversity across euro area countries heightens the potential for committee members not to reveal private information. As was shown in theoretical studies (see Green and Laffont, 1979, and Mas-Collel, Whinston, and Green, 1995 and discussed by Sibert, 2006, and Fujiki, 2005), there is the more general issue of achieving incentive compatibility in monetary policy committees as a means to promoting timely monetary policy decisions. Accordingly, committees may be subject to strategic behaviour whenever its members engage in "self-interested" behaviour and do not fully share information. Opportunistic behaviour by individual committee members, combined with the existence of private information, may lead to a situation for which there is no incentive-compatible voting mechanism. Such joint decision-making processes may lead to outcomes that are shared by all its members, but that are inferior to decisions free of strategic behaviour. As experiments have shown, the outcome of group decision-making can be improved by changing the settings. For instance, in the presence of "repeated games", information sharing typically works better because group dynamics may reduce the incentives for individual members to engage in non-opportunistic behaviour.

The federal nature of the Eurosystem has important advantages that contribute to the efficiency of the monetary policy decision-making process in the euro area. It enhances the gathering and sharing of information on relevant economic developments in the euro area, thereby contributing to well informed discussions at the level of the Governing Council. The federal structure also facilitates consensus

²⁰ See also Bonzom and Barontini (2006) on the implications of the federal structure at the NCB level.

building at the level of the Governing Council, as any relevant contributions to its discussions are agreed beforehand by the Eurosystem's committees involving all euro area NCBs. This means that the discussions in the Governing Council focus more on the assessment of the arguments and hence saves time at the decision-making level. The federal approach has also helped in that it enables a wide range of audiences to be addressed, as required in a multicultural and multilingual currency area, and has therefore strengthened the accountability of the central banking system. In the presence of currently 23 official languages in the European Union and 13 official languages in the euro area, it is a particular challenge for policymakers to convey the very same message to citizens in all countries. The fact that the NCB governors explain the ECB's monetary policy decisions in their own language and that the Treaty stipulates that certain publications (e.g. the Monthly Bulletin) be released in the national languages of euro area countries have helped to improve all communication by the ECB and has ensured that information reaches all citizens in a timely and comprehensive manner.

III. The Eurosystem's monetary policy decision-making process

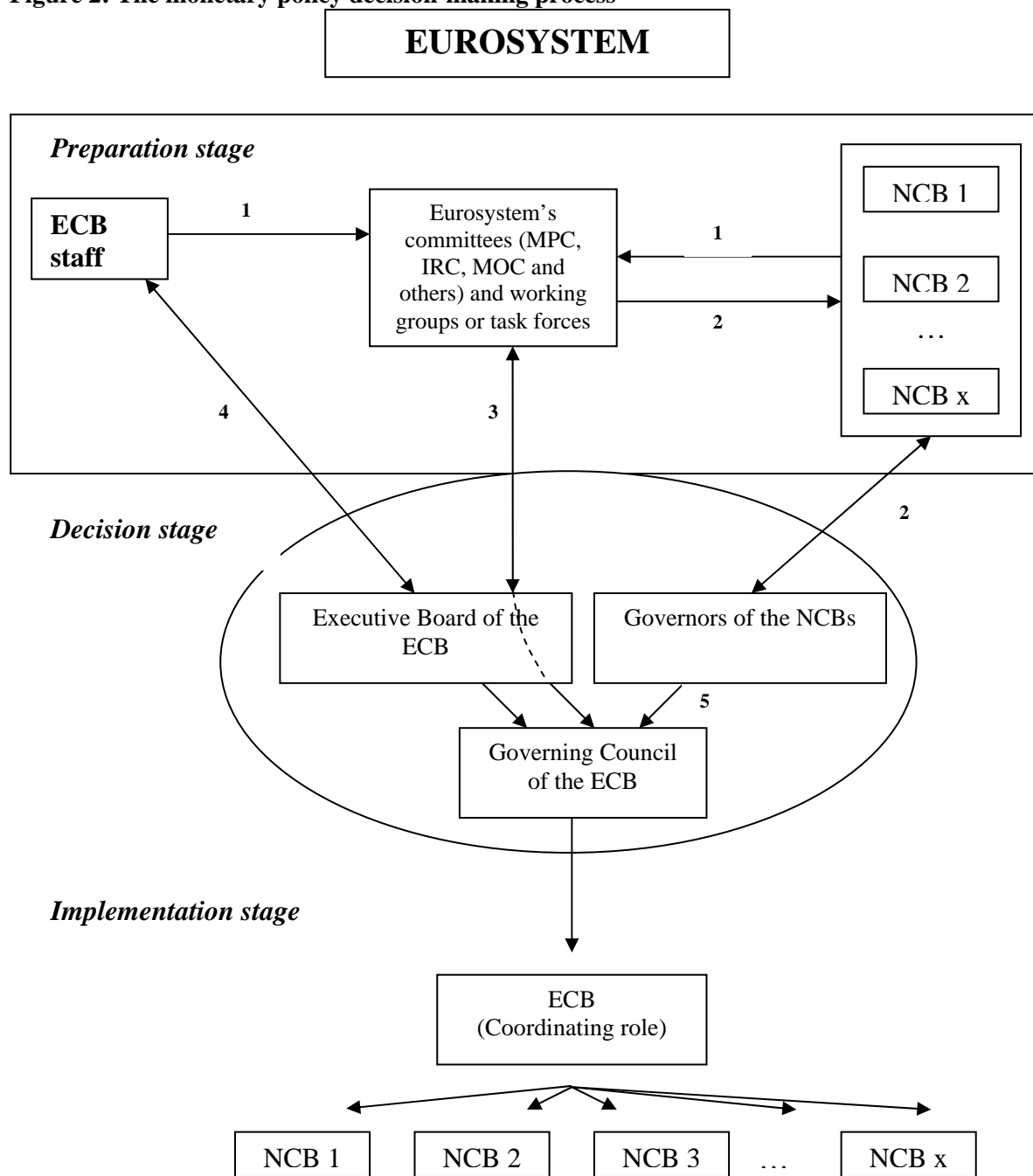
The Governing Council's monetary policy decisions are based on consensus, thus enabling the full diversity of views and experiences across regions to be incorporated. In the presence of uncertainty, monetary policy-makers may face a "discursive dilemma". When exercising judgement, the views of all committee members have to be aggregated in some form. The aggregation of heterogeneous views or preferences may cause various problems. In this respect, the outcome will depend on how the monetary policy decision is reached. Claussen et al. (2006) suggests that a premise-based procedure will, on average, result in more timely monetary policy decisions than a conclusion-based procedure. In practice, however, this distinction may be insufficient, as monetary policy committees normally vote on the policy rates, and rarely on the underlying assumptions. However, it may be relevant concerning the organisation of the discussion, i.e. whether the discussion follows a preordained and logical structure or is a succession of views on the best interest rate decision.

Regular decision-making cycle

Preparations and discussions on monetary policy need to be structured in such a way that timely monetary policy decisions can be made. Preparation of the ECB's monetary policy decisions is based on a regular cycle that is repeated once a month. Decision-making bodies interact with technical committees which are in charge of updating the facts and figures underlying the monetary policy assessment of the Governing Council. The high quality and timeliness of the inputs by Eurosystem staff and the technical preparations coordinated at committee level – in conjunction with the ECB's monetary policy strategy – have helped decision-makers to make robust monetary policy decisions in an environment of high uncertainty regarding the economic structure and the transmission mechanism. An intense exchange of views at the technical level has also contributed to consensus building at the level of the Governing Council, because this feature makes the decision-making process more conclusion-based.

The regular cycle of the Eurosystem's decision-making process comprises three main stages (see Figure 2), and at the end of the cycle there is also a communication phase that is not shown in the figure. First, there is a *preparation stage*, which involves technical contributions from all Eurosystem staff and committees. The aim of this stage is to gather information and agree on technical contributions that may be relevant to the decision-making process. The fact that the Eurosystem's committees comprise 1-2 national experts per country ensures that each euro area NCB provides input into the deliberations and is equally represented. ECB services make significant contributions to the discussions by preparing notes that serve as a general basis for the discussions. While committee chairpersons are normally appointed by the existing committee participants, it is often the case that an expert from the ECB chairs these discussions. The Eurosystem's committees all operate in a similar way; they have a well defined mandate which clarifies the range of contributions they have to prepare as input to the policy process; the working language is English; and there are regular meetings (typically once a month). Documentation and technical background information are made available to all committee members; their deliberations are confidential; and reports are published on issues of more general interest, subject

Figure 2: The monetary policy decision-making process



- 1 Preparatory work for committees and working groups or task forces.
- 2 NCB members report to Governors. Governors give guidance.
- 3 Reports and letters sent to the Executive Board for transmission to Governors by the Secretariat. The Executive Board gives guidance.
- 4 Governing Council documentation prepared by ECB staff and transmitted by the Executive Board via the Secretariat. The Executive Board leads the preparations.
- 5 Transmission of letters and documents via the President.

Note: NCB refers to staff from the NCBs of the euro area countries. In 2008, the Eurosystem comprises x=15 NCBs.

to the approval of the Governing Council. Committees can delegate work of a more technical nature to working groups with a specific mandate or to task forces that meet until the task at hand is accomplished.

Second, there is a *decision stage*, which involves the Governing Council and the Executive Board of the ECB. All contributions required for the policy decision-making process are either prepared directly by staff from the ECB and NCBs or are the outcome of the deliberations of the various committees in which Eurosystem staff interact. In this regard, the Executive Board has a special role, because its members take the lead in monetary policy preparation (see Article 12.2 of the Statute of the ESCB). Contributions from ECB staff are always considered by the Executive Board prior to the Secretariat's transmission of documents to the Governing Council. Monetary policy decisions are based on intense discussions on the risks to price stability for the euro area and are made at the level of the Governing Council and, all members of the Governing Council vote on monetary policy decisions based on a consensus.²¹

The President of the ECB acts as the "primus inter pares", chairs the discussions and ensures that the rules of procedures are followed. The Board Member in charge of DG-Economics may submit a policy recommendation for the discussion and eventual decision of the Governing Council. After an internal debate, the President seeks agreement among the members of the Governing Council on the monetary policy assessment for the euro area, both in terms of the decision and the drafting of the Introductory Statement that will be presented at the press conference. The schedules for the meetings are available on the ECB's website two years ahead. The Governing Council usually meets twice a month in Frankfurt. At its first meeting each month, the Governing Council assesses economic, financial and monetary developments and makes its monthly monetary policy decisions. At its second meeting, it discusses mainly issues related to the other tasks and responsibilities of the Eurosystem.

Third, there is an implementation stage, in which the NCBs are closely involved. Once a decision has been made, for example on the policy rate, either the responsible Eurosystem committee or ECB services coordinate the activities of the NCBs, which will then implement the decision in a decentralised manner and ensure that the Governing Council's guidelines are followed. For instance, all regular monetary policy operations are conducted in a decentralised manner, and are coordinated by the ECB. There is a single tender and bids are submitted through NCBs' operational functions (for details see ECB, 2004, and ECB, 2006a).

At the end of the decision-making process, the Governing Council communicates its monetary policy decisions. It informs the public about all relevant aspects of its deliberations in almost real time with the issuance of the Introductory Statement of the President after the meeting. Issing (2005) suggests that the practice of holding extensive press conferences each month and of publishing an Introductory Statement fits well with the collegial nature of the ECB's decision-making process and the specific institutional arrangements of a supranational bank: "a decision is the result of collective deliberations and debate and cannot be reduced to a simple exchange of opinions". Moreover, the ECB issues a press release (at 1.45 p.m. (C.E.T./C.E.S.T.)) that informs the public about the Governing Council's monetary policy decision.²² Shortly afterwards (at 2.30 p.m.(C.E.T./C.E.S.T.)), the President, assisted by the Vice-President, holds a press conference that is broadcast live and lasts about an hour. During this press conference, the President reads the Introductory Statement, which contains a more detailed explanation of the decision against the background of the ECB's monetary policy strategy. In particular, the President explains the Governing Council's assessment of future risks to price stability, and its judgement having cross-checked the information from its economic and monetary analysis. It also includes a view on fiscal policy and structural reform developments. The Introductory Statement is followed by a question & answer (Q&A) session, which allows journalists to enquire openly about details concerning the specific monetary policy decision. A transcript of this Q&A session is published on the ECB's website only a few hours later. Overall, the press conference contributes to the transparency of the Governing Council's decision-making process for monetary policy matters. The publication of this "Introductory Statement" by the President immediately after the monthly press

²¹ Article 11.5 of the Statute of the ESCB states that "each member of the Executive Board present in person shall have the right to vote and shall have, for that purpose, one vote". The Governing Council has not provided an operational definition of what "consensus" actually means in this regard.

²² Decisions that relate to the other tasks of the ECB, e.g. to payment systems, financial stability, statistics, banknotes and certain legal affairs, are published at 3 p.m. (C.E.T./C.E.S.T.) the day after the second meeting of the month.

conference instead of minutes and voting records has contributed to a timely dissemination of the policymakers' reasoning via the media.

Monetary policy decisions

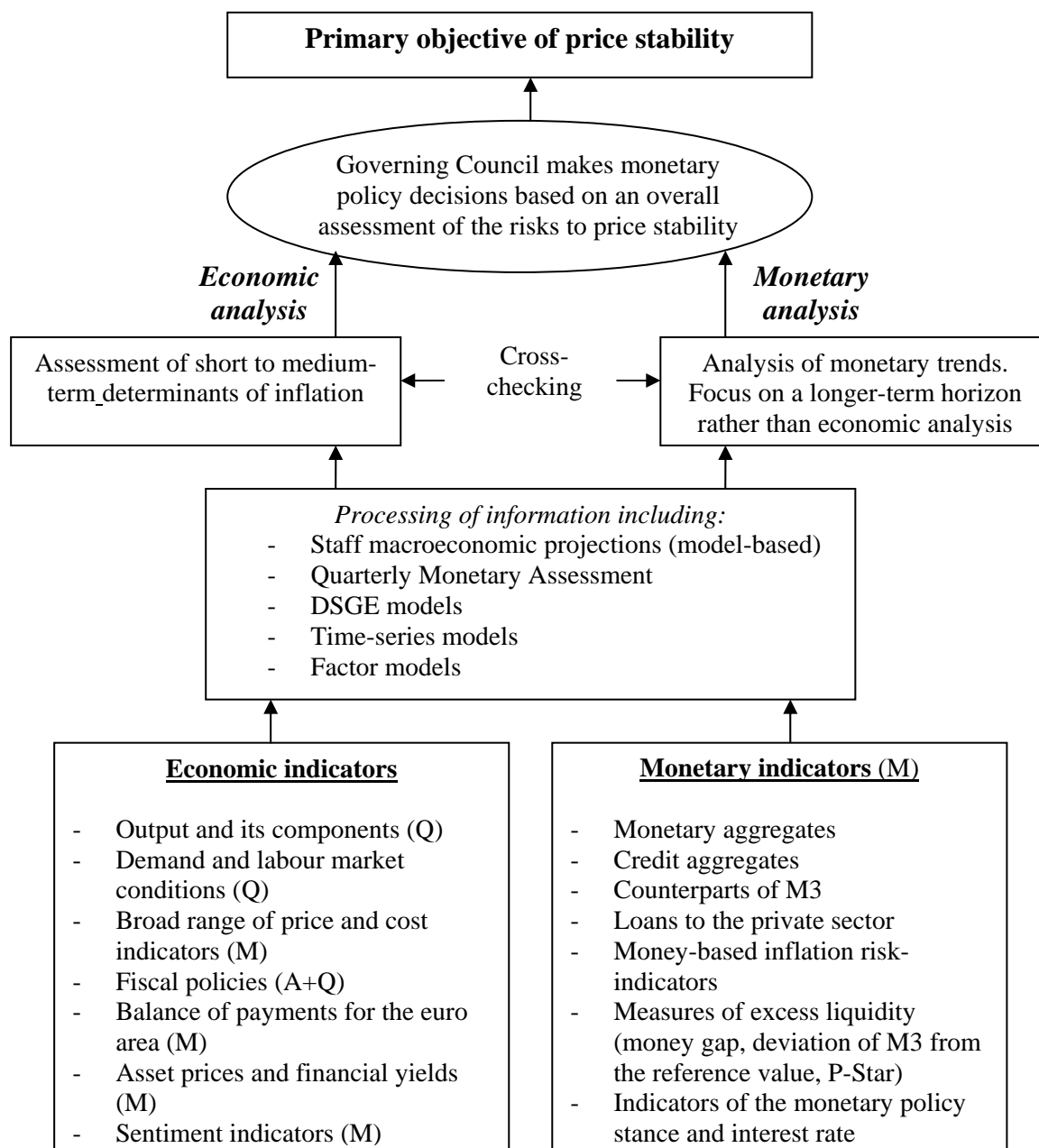
As is the case for other central banks, such as the Federal Reserve System and the Bank of Japan, the ECB's interest rate setting behaviour can (ex post) be described by means of a monetary policy rule. The existence of such a rule does not mean that the monetary policy-making process could be substituted for the pursuit of an "optimal" interest rate rule. Such a rule is useful ex post – when there are no uncertainties – and for the assessment of the conduct of monetary policy. Full interaction at the various technical levels is required in order to cope with a number of uncertainties with regard to data, models and shocks hitting the economy. Moreover, the parameters of the ECB's monetary policy rule could change over time (and may differ from that of other central banks). There may also be shocks that require different monetary policy responses to those implied by a "simple" monetary policy rule (see Gerdesmeier, Mongelli and Roffia, 2007).²³ Furthermore, a mechanistic rule could render communication more difficult, especially when economic developments call for a deviation from the path implied by the rule.

When setting interest rates, the Governing Council of the ECB applies a monetary policy strategy (see Figure 3), consisting of a definition of price stability and an economic and monetary analysis of the risks to price stability. The ECB's monetary policy strategy was the outcome of intense discussions at all working levels of the ECB and the NCBs, and has been tailored to the needs of a large currency area. This stability-oriented monetary policy strategy was adopted by the Governing Council in October 1998 and was reviewed in June 2003 (see Issing, 2003). It is based on two main elements: a quantitative definition of price stability, and a two-pillar framework which is the ECB's own approach to organising, evaluating and cross-checking the information relevant for assessing risks to price stability in the euro area (for details on the strategy, see ECB, 1999. and ECB, 2004).

The Governing Council regularly carries out two analyses, namely an economic analysis to identify the short to medium-term risks to price stability and a monetary analysis to assess medium to long-term inflation trends. These two analyses are known as the "two pillars". This framework makes a clear distinction between alternative explanations of the inflation process as propagated by traditional schools of economic thought (see ECB, 2003 and 2004a). The approach is tailored to the specific circumstances applying to the euro area, and it pays due attention to ensuring robust monetary policy decisions. Episodes such as the Japanese asset price bubble in the late 1980s and the tech bubble in the US at the start of the new millennium have made policymakers increasingly aware of the potential damages resulting from a neglect of developments in money and credit when setting interest rates. In order to avoid major policy errors, the ECB's monetary analysis has been assigned the role of cross-checking the short to medium-term indications of its economic analysis. The economic and monetary analyses include a large number of relevant indicators that are monitored regularly, and a set of briefing documents discussing their evolution and addressing specific topical issues is made available to the Governing Council at its first meeting of every month. This ensures that the policy-makers systematically receive all relevant information in a systematic manner. All these documents are prepared by ECB staff. This information is usually reflected in the Monthly Bulletin of the same month, after the Governing Council has made its decision on policy rates.

²³ A recent comparison of the ECB with the Federal Reserve System after 2001 by Christiano, Motto and Rostagno (2007) finds, for instance, that the ECB reacts somewhat differently to shocks. Such differences mainly reflect the dual mandate of the Federal Reserve System, which implicitly forces FOMC members to give higher weight to an output objective, and differences in the structure of both the economies. The greater persistence of price developments in the euro area implies that the ECB has to move its policy rates less than the Federal Reserve System in order to stabilise prices. In addition, a number of empirical papers examining policy reaction functions suggest that the ECB's monetary policy largely resembles that of the Bundesbank, with some modifications that mainly reflect the differences between the structure of the euro area economy and that of the German economy (see Hayo and Hofmann, 2006, and Smant, 2002).

Figure 3: The ECB's monetary policy strategy



Note: With regard to the availability of indicators, A: Annual, Q: Quarterly, M: Monthly.

The Governing Council is in charge of cross-checking the information from the economic and monetary analyses, and, if necessary, applying judgement when it comes to identifying the best monetary policy response to the circumstances. When making interest rate decisions, members of the Governing Council of the ECB place more emphasis on monetary analysis than most other central banks. These decisions require the thorough preparation and analysis of monetary and credit aggregates, as well as of other indicators, such as money-based inflation-risk indicators for inflation, money gaps, money demand models, P-star models and dynamic stochastic general equilibrium (DSGE) models which assign an important role to money. The bulk of the information is focused on the euro area in line with the ECB's mandate and strategy. However, supplementary briefing material on developments in the regions is prepared in order to deepen policy-makers' understanding of the dynamic behaviour of the euro area economies and to account for special factors attributable to exceptional developments in just one or several countries.²⁴ Every quarter, the Governing Council receives, at the same time as the projections,

²⁴ The documents circulated do not reflect or prejudice the Governing Council's evaluation of the information provided by

the Quarterly Monetary Assessment (QMA) note, which is undertaken by ECB staff and takes into account input from NCB experts.²⁵ The key focus of the QMA is to quantify the contributions of the various monetary analysis tools to the inflation outlook. The information contained in the QMA is made available to the public in the ECB's Monthly Bulletin. The QMA is also presented to the Eurosystem MPC which regularly discusses in detail the techniques and models used in the context of such assessments. While the ECB staff is in charge of the regular, monthly analysis of monetary and credit aggregates and of certain indicators in the economic analysis, such as developments in prices, wages, output, external trade and financial indicators, the role of preparing the Eurosystem staff macroeconomic projections is shared with the staff of the Eurosystem. The distinction between an economic and a monetary analysis implies a rather high degree of specialisation and the need to reconcile the interdependent information from both analyses. This leaves the decision-making bodies room for judgement, when evaluating and cross-checking the information from both analyses.

Macroeconomic projections play an important role in the economic analysis of the ECB's monetary policy strategy, but owing to their inherent limitations, they are one input to the deliberations of the Governing Council among others.²⁶ These projections for euro area inflation, output and other macroeconomic variables are conditional on the assumptions for a set of exogenous variables, and are produced jointly by experts from the Eurosystem and the ECB on a biannual basis, the other two times by ECB staff only, and are published every quarter in the ECB's Monthly Bulletin. The aim of the exercise is to provide the Governing Council with detailed quantitative information on the economic outlook for the euro area. This information is summarised and explained in a Eurosystem staff macroeconomic projections report. This report is not a genuine inflation report, as issued by the Bank of England for example, or a monetary policy report as issued by Sveriges Riksbank, although its structure and content are nevertheless fairly similar. It contains detailed information about the projection assumptions and the economic outlook for the euro area as a whole. There is also a detailed assessment of price trends for a shorter-term horizon. However, it does not contain any information on longer-term price trends derived from monetary or credit aggregates; this is instead prepared separately by ECB staff within the monetary analysis.

Information about the economic outlook of the euro area is a vital component of the policy-making process. Before a decision is made, the Governing Council analyses a large amount of economic, financial and monetary data with regard to their implications for future risks to price stability. The constraints faced by the Governing Council are determined by the structure of the economy and economic disturbances. Before every Governing Council meeting, the Executive Board circulates documents prepared by ECB staff summarising its latest assessment of the indicators monitored within the economic and the monetary analyses. Every third month, the briefing material includes the results of Eurosystem/ECB staff macroeconomic projections, as agreed by the Eurosystem MPC and its working groups. The Eurosystem/ECB staff macroeconomic projections are a convenient analytical tool for condensing a broad range of information on current and future economic developments. They provide a scenario for the euro area economy that will most likely materialise over a horizon of two years. Based on a set of assumptions (these concern policy rates, exchange rates, commodity prices, fiscal variables and the external sector) they combine the use of conventional models with economic experts' judgement. Discussions among Eurosystem staff, as well as other tools, ensure the consistency of the results. The projection exercises are a regular source of information for the deliberations of the Governing Council. They do not, however, incorporate the Governing Council's judgement, with the result that, in practice, the Governing Council's assessment can deviate from the staff assessment. A noteworthy feature of the Eurosystem's projection exercises is that the Governing Council does not interfere in the production process of any of these projections, which remain the sole responsibility of Eurosystem staff, although the Governing Council monitors the functional procedures of the MPC and its working groups. Hence, the Governing Council may draw different conclusions to those implied by

both analyses.

²⁵ For a description of the tools used in the QMA, see Fischer et al. (2006).

²⁶ The projection exercises may also be taken as an example in order to illustrate that work of the technical committees saves the decision-making bodies a significant amount of time when it comes to analysing the economic outlook and the underlying risks to price stability. See Moutot et al (2008).

the projections. At the same time, the Governing Council is informed of the progression of projections and of the rationale of the choices made at the technical level. In this way, tentative assessments and conclusions, which are mostly guided by academic and quality considerations, are clearly separated from the judgement of the policy-makers. The Governing Council may also receive detailed information on the assumptions made during the technical discussions of the Eurosystem's committees.

Timely and robust monetary policy decisions

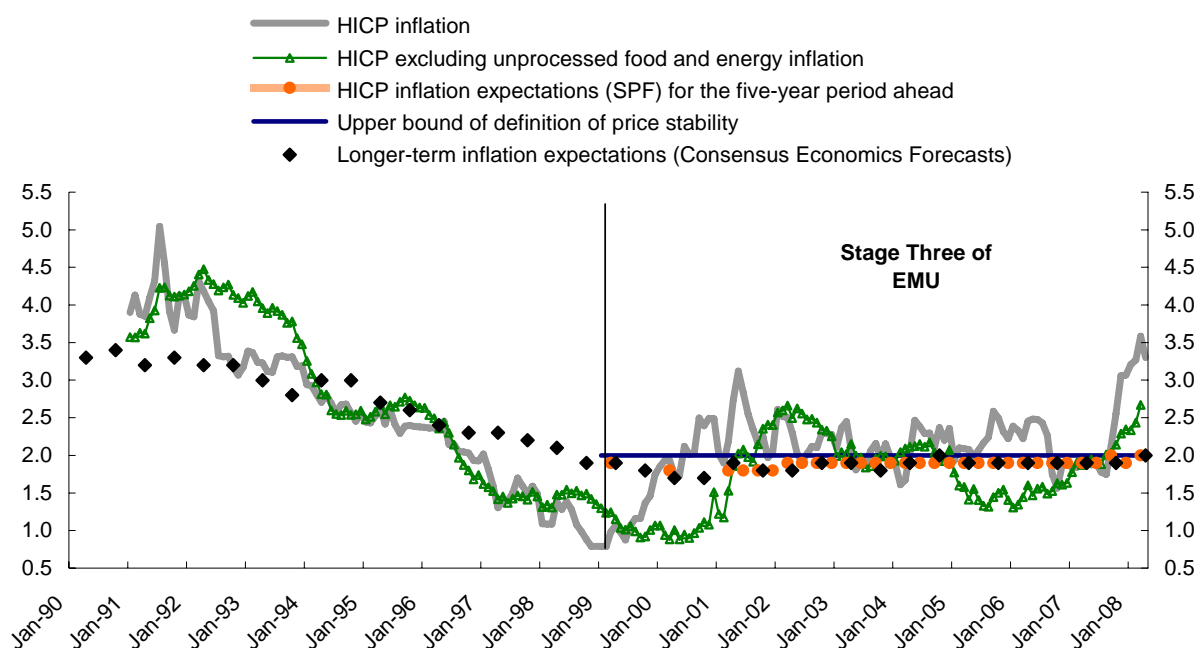
A number of features of the decision-making-process explain that the Eurosystem minimises the risk of policy errors and succeeds in making timely decisions. First, there is the hub-and-spokes nature of the decision-making bodies, according to which a wide range of responsibilities are delegated to the Executive Board (e.g. the preparation of monetary policy decisions). The Executive Board acts with a clear euro area focus and contributes to the gathering and assessment of policy-relevant information. It gives a strong weight to euro area considerations in the discussions of the Governing Council. Second, monetary policy discussions in the Governing Council follow the logic of the ECB's monetary policy strategy, which is to conduct an economic analysis and a monetary analysis and then cross-check the information from both analyses. Although these discussions focus on euro area developments, national developments are also considered to the extent they are meaningful to understanding the area-wide trend. Furthermore, the "one member, one vote" principle can be seen as contributing to the euro area focus. Members of the Governing Council have equal voting rights regardless of the economic weight of their country, and it is the overall assessment by individual members that matters and not the country weight of the NCB. Moreover, the personal independence of members of the Governing Council forbids other national policy-makers to influence their voting behaviour. Hence, national interest is less likely to play a role. Third, the use of a well structured monetary policy decision-making process, specifying the set of indicators to be monitored regularly and ensuring their regular and systematic consideration, encourages a premise-based approach, thus further limiting the use of national or specific considerations. Fourth, rules and "terms of reference" concerning communication are agreed regularly. In addition, all members of the Governing Council are obliged to present its collective view in public, regardless of whether they have individually agreed to or dissented from a decision.

Some ECB observers (e.g. Wyplosz, 2003) have raised the concern that diversity, especially in the context of consensus voting, may lead to indecisiveness, increase the potential for policy errors or, at the very least, lead to delays in the monetary policy response of the Governing Council to economic shocks influencing the euro area economy. The proposition by Wyplosz (2003) is in contrast with the effectiveness of the ECB's decision-making process as indicated by the overall success of its monetary policy since 1999, but also by its timely reaction under exceptional circumstances (such as those of 11 September 2001 and the financial turmoil in August 2007).²⁷ Experience thus suggests that prices in the euro area have remained stable and inflation expectations have been anchored in line with the ECB's definition of price stability (see Figure 4). In fact, annual inflation as measured by the Harmonised Consumer Price Index (HICP) averaged at around 2 per cent over the first almost ten years of the single monetary policy of the ECB, and is thus broadly in line with declared policy intentions, if account is taken of the severity of oil price shocks that have led to substantial price increases for oil and other commodities within the first decade of EMU.

²⁷ As is discussed and further explained in other publications (see ECB (2007a) and Blattner et al. (2008)), a close mapping of the ECB's monetary policy strategy and official communications has enhanced the predictability of monetary policy. In contrast to some inflation-targeting central banks, such as Norges Bank and Sveriges Riksbank, the ECB does not regularly provide forward guidance to financial markets by announcing a preferred interest rate path. The Governing Council has clarified its reservations about pre-announcing an interest rate path and has emphasised the importance of avoiding mechanistic reactions to a single indicator, forecast or interest rate rule (see ECB (2007a)). Instead, it relies on the capacity of financial markets to make their own assessment based on all the information available with regard to the economic conditions in the euro area and the world economy.

Figure 4: Inflation and inflation expectations in the euro area

(monthly data; non-seasonally adjusted)



Sources: ECB, Eurostat and Consensus Economics Forecast. Note: Last observation refers to March 2008 for the HICP headline and to March 2008 for core HICP. The latest Consensus Economics Forecast refers to October 2007 and the latest SPF survey to March 2008. Longer-term inflation expectations from Consensus Economics Forecasts refer to a horizon of six to ten years, while those from the Survey of Professional Forecasters refer to five years ahead. Consensus inflation expectations until December 2002 are constructed as a weighted average of the five largest euro area countries which together account for more than 80% of euro area GDP.

Conclusions

In this contribution, we suggest that the federal structure of the Eurosystem and committee work at the various hierarchical levels are crucial for the smooth functioning of the monetary policy process and ultimately for the maintenance of price stability in the euro area. The committee structure of the Eurosystem and the close cooperation between ECB and NCB staff contributes to the fulfilment of the Eurosystem's tasks and to the smooth running of the organisation. The Eurosystem's committee structure is special in that it allows the regions to play a sizeable role in the process of monetary policy-making. The hub-and-spoke structure of the system ensures both timely monetary policy decision-making and regional participation, while at the same time avoiding the unnecessary duplication of tasks. In this regard, the structure of the decision-making bodies resembles that of the Federal Reserve System and of the Bundesbank prior to EMU.

An important aspect of the Eurosystem's monetary policy preparations is that committees in all functional areas process information by fully exploiting the expertise of ECB and NCB experts. The level of interaction between the ECB and NCBs in the three phases of the decision-making process – namely preparation, decision, implementation – vary, but in the light of the federal structure of the Eurosystem, the NCBs play an important role. Working through the Eurosystem's committees and its substructures boosts the efficiency of the deliberations of the Governing Council, which sets interest rates based on consensus. The cooperation in the Eurosystem through its committee structure fosters operational efficiency and will, at some stage, contribute to the realisation of a "system identity", as well as the sharing of common values.

Abbreviations

AMICO	Accounting and Monetary Income Committee
BANCO	Banknote Committee
BSC	Banking Supervision Committee
BUCOM	Budget Committee
DSGE	Dynamic Stochastic Equilibrium Model
ECB	European Central Bank
ECCO	External Communications Committee
EMI	European Monetary Institute
EMU	Economic and Monetary Union
ESCB	European System of Central Banks
FOMC	Federal Open Market Committee
GDP	Gross Domestic Product
HICP	Harmonised Index of Consumer Prices
HRC	Human Resource Conference
IAC	Internal Audit Committee
IRC	International Relations Committee
LEGCO	Legal Committee
MOC	Market Operations Committee
MPC	Monetary Policy Committee
MPSC	Monetary Policy Sub-Committee
NCB	National Central Bank
PSSC	Payment and Settlement Systems Committee
PTA	Policy Target Agreement
QMA	Quarterly Monetary Assessment
STC	Statistics Committee

References

- Alesina, A. and Summers, L. H. (1993) 'Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence'. *Journal of Money, Credit and Banking*, Vol. 25, No. 2, pp. 151-62.
- Arnone, M., Laurens, B. J., Segalotto, J.-F. and Sommer, M. (2007) *Central Bank Autonomy: Lessons from Global Trends*. IMF Working Paper, No WP/07/88 (Washington: IMF).
- Barro, R. J. and Gordon, D. B. (1983) 'A Positive Theory of Monetary Policy in a Natural-rate Model'. *Journal of Political Economy*, Vol. 91, pp. 589-610.
- Bénassy-Quéré, A. and Turkisch, E. (2007) *ECB Governance in an Enlarged Eurozone*. CEPII Research Center Working paper, No 2005-20 (Paris: CEPII).
- Berger, H. (2006) *Optimal Central Bank Design: Benchmarks for the ECB*. CESIFO Working paper No 1697 (Munich: CESIFO).
- Berger, H., de Haan, J. and Inklaar, R. (2003) *Restructuring the ECB*. CESIFO Working paper No 1084 (Munich: CESIFO).
- Bernholz, P. (1974) 'Logrolling, Arrow Paradox, and Decision Rules'. *Kyklos*, Vol. 27, pp. 49-61.
- Berk, J. M. and Bierut, B. (2007) *Two-tiered MPCs and the implications for monetary policy*. Paper presented at the research workshop on "Monetary Policy Committees" organised by Norges Bank, Oslo 6-7 September 2007 (Amsterdam: DNB).
- Blattner T., Catenaro, M., Ehrmann, M., Strauch, R. and Turunen, J. (2008) *The Predictability of Monetary Policy*. ECB Occasional Paper, No 83 (Frankfurt: ECB).
- Blinder, A. (2004) *The Quiet Revolution: Central Banking Goes Modern* (New Haven: Yale University Press).
- Blinder, A. (2006) *Monetary Policy by Committee: Why and How?* DNB Working Paper, No 92 (Amsterdam: DNB).
- Blinder, A. and Morgan, J. (2000) *Are Two Heads Better Than One?: An Experimental Analysis of Group vs. Individual Decisionmaking*. NBER Working Paper Series, No 7909 (Cambridge/MA: NBER).
- Blinder, A. and Morgan, J. (2007) *Leadership in Groups: A Monetary Policy Experiment*. NBER Working Paper Series, No 13391 (Cambridge/MA: NBER).
- Blinder, A. and Wyplosz, C. (2004) *Central Bank Talk: Committee Structure and Communication Policy*

(Princeton: Princeton University).

Bonzom, P. and Barontini, C. (2006) 'A National Central Bank within a Federal System'. Proceedings of OeNB Workshop No 7, Vienna: OeNB.

Christiano, L., Motto, R. and Rostagno, M. (2007) *Shocks, Structures or Monetary Policies? The EA and US after 2001*. ECB Working Paper, No 774 (Frankfurt: ECB).

Clarida, R., Gali, J. and Gertler, M. (1998) 'Monetary Policy Rules in Practice, Some International Evidence'. *European Economic Review*, Vol. 42, 1033–67.

Claussen, C.A. and Årstein RÅsland (2006) 'Uncertainty and Judgment Aggregation in Monetary Policy Committees'. *Computing in Economics and Finance*, No. 353.

Cukierman, A. and Meltzer, A. (1986) 'A Theory of Ambiguity, Credibility and Inflation Under Discretion and Asymmetric Information'. *Econometrica*, Vol. 54, pp. 1099-1128.

Demertzis, M. and Hughes Hallett, A. (2007) 'Central Bank Transparency in Theory and Practice'. *Journal of Macroeconomics*, Vol. 29, No. 4, pp. 760-89.

Duisenberg, W. (2001) 'Hearing before the Committee on Economic and Monetary Affairs of the European Parliament'. Brussels, 5 March (Frankfurt: ECB).

ECB (1999) 'The Stability-oriented Monetary Policy Strategy of the Eurosystem'. *Monthly Bulletin*, January, pp. 39-50.

ECB (2002) 'The Accountability of the ECB'. *Monthly Bulletin*, November, pp. 45-57.

ECB (2003) 'The Adjustment of Voting Modalities in the Governing Council'. *Monthly Bulletin*, May, pp. 73-83.

ECB (2004) *The Monetary Policy of the ECB*. Second edition (Frankfurt: ECB).

ECB (2006a) *The Implementation of Monetary policy in the Euro Area: General Documentation of the Eurosystem Monetary Policy Instruments and Procedures*. September (Frankfurt: ECB).

ECB (2007a) 'Communicating Monetary Policy to Financial Markets'. *Monthly Bulletin*, April, pp. 61-71.

ECB (2007b) *Annual Report 2006*. April.(Frankfurt: ECB).

Eijffinger, S. and de Haan, J. (1996) *The Political Economy of Central-Bank Independence*. Special Papers in International Economics, No 19 (Princeton: Princeton University).

Eijffinger, S. and Geraats, P. (2006) 'How Transparent are Central Banks?'. *European Journal of Political Economy*, Vol. 22, No. 1, pp. 1-21.

Erhart, S. and Vasquez-Paz, J. L. (2007) *Optimal Monetary Policy Committee Size: Theory and Cross Country Evidence*. ASP Working Paper (Kiel: Institute of World Economics).

Erhart, S., Lehment, H. and Vasquez-Paz, J. L. (2007) *Monetary Policy Committee Size and Inflation Volatility*. Kiel Working Paper, No 1377 (Kiel: Institute of World Economics).

Fischer, B., Lenza, M., Pill H. and Reichlin, L. (2007) *Money and Monetary Policy: The ECB Experience 1999-2006*. Paper presented at the American Economic Association Conference, 5 January 2007 (New Orleans: AEA).

Friedman, M. (1959) *A Program for Monetary Stability* (New York: Fordham University Press).

Fry, M., DeAnne Julius, Mahadeva, L., Roger, S. and Sterne, G. (1999) Key Issues in the Choice of Monetary Policy Framework. In Mahadeva, L. and Sterne, G. (eds) *Monetary Frameworks in a Global Context* (London: Routledge).

Fujiki, H. (2005) 'The Monetary Policy Committee and the Incentive Problem: A Selective Survey'. *Monetary and Economic Studies*, Vol. 23, pp. 37-92.

Gerdesmeier, D., Mongelli, F.P. and Roffia, B. (2007) *The Eurosystem, the US Federal Reserve and the Bank of Japan: Similarities and Differences*. ECB Working Paper, No 742 (Frankfurt: ECB).

Gerlach-Kristen, P. (2005) 'Monetary Policy Committees and Interest Rate Setting'. *European Economic Review*, Vol. 50, pp. 487-507.

Green, J. R. and Laffont, J.-J. (1979) *Incentives in public decision-making*, *Studies in Public Economics*, Vol. 1 (Amsterdam: North-Holland).

Gros, D. (2003) *Reforming the Composition of the ECB Governing Council in View of Enlargement: An Opportunity Missed!*. CEPS Policy Brief No 32, April (Brussels: CEPS).

Hayo, B. and Hofmann, B. (2006) 'Comparing Monetary Policy Reaction Functions: ECB versus Bundesbank'. *Empirical Economics*, Vol. 31, No. 3, pp. 645-62.

Issing, O. (ed) (2003) *Background Studies for the ECB's Evaluation of its Monetary Policy Strategy* (Frankfurt: ECB).

- Issing, O. (2005) 'Communication, Transparency, Accountability: Monetary Policy in the 21st Century'. *Federal Reserve Bank of St. Louis Review*, March/April, pp. 65-84.
- King, M. (2007) 'The MPC Ten Years on'. Lecture delivered to the Society of Business Economists, 2 May 2007 (London: Bank of England).
- Kuttner, K. and Posen, A. (2007) *Do Markets Care Who Chairs the Central Bank?*. Peterson Institute for International Economics (IIE), Working Paper No 07-3 (Washington: IIE).
- Lombardelli, C., Proudman, J. and Talbot, J. (2005) 'Committees Versus Individuals: An Experimental Analysis of Monetary Policy Decision Making', *International Journal of Central Banking*, Vol. 1, No. 1, pp. 181-204.
- Maier, P. (2007) *Monetary Policy Committees in Action: Is There Room for Improvement?*. Bank of Canada Working Paper, No 2007-6 (Ottawa: Bank of Canada).
- Mas-Collel, A., Whinston, M. D. and Green, J. R. (1995) *Microeconomic Theory* (Oxford: Oxford University Press).
- Meyer, L. (1998) 'Come with me to the FOMC'. The Gillis Lecture at Willamette University, Salem / Oregon, 2 April 1998 (Washington: Board of Governors).
- Moutot, P., Jung, A. and Mongelli, F. P. (2008) *The Workings of the Eurosystem, Monetary Policy Preparations and Decision-making – Selected Issues*. ECB Occasional Paper, No 79 (Frankfurt: ECB).
- Muto, T. (2007) 'How do central banks make decisions?: Monetary Policy Committee'. Speech at the Spring meeting of the Japan Society of Monetary Economics, Chiba, 12 May 2007 (Tokyo: Bank of Japan).
- Nelson, W. (2008) *Monetary policy decisions: preparing the inputs and communicating the outcomes*. Bank for International Settlements papers No 37.
- Olson, M. (2004) 'The Federal Open Market Committee and the Formation of Monetary Policy'. Remarks at the 26th Conference of the American Council on Gift Annuities, Orlando / Florida, 5 May 2004 (Washington: Board of Governors).
- Posen, A. (1993) 'Why Central Bank Independence Does Not Cause Low Inflation: There Is No Institutional Fix for Politics'. In: O'Brien, R. (ed), *Finance and the International Economy: 7* (Oxford: Oxford University Press), pp. 45-54.
- Rogoff, K. (1985) 'The Optimal Degree of Commitment to an Intermediate Monetary Target'. *Quarterly Journal of Economics*, Vol. 100, pp. 1169-89.
- Scheller, H.-P. (2004) *The European Central Bank – History, Role and Functions*. Second revised edition, 2006 (Frankfurt: ECB).
- Sibert, A. (2006) *Central Banking by Committee*. DNB Working paper, No 91 (Amsterdam: DNB).
- Smant, D. (2002) *Has the European Central Bank Followed a Bundesbank Policy? Evidence from the Early Years*. Working paper (Rotterdam: Erasmus University).
- Smidkova, K. (2003) 'Methods Available to Monetary Policy Makers to Deal with Uncertainty'. Paper prepared for the conference "Forecasting in a Central Bank", August (London: Bank of England).
- Svensson, L.E. (1999) 'Inflation Targeting as a Monetary Policy Rule'. *Journal of Monetary Economics*, Vol. 43, pp. 607-54.
- Taylor, J. (1993) 'Discretion versus Policy Rules in Practice'. *Carnegie Rochester Conference Series on Public Policy*, Vol. 39, pp. 195-214.
- Ulrich, K. (2004) *Decision-making of the ECB: Reform and Voting Power*. ZEW Discussion paper, No 04-70 (Mannheim: ZEW).
- Vandenbusche, J. (2006) *Elements of Optimal Monetary Policy Committee Design*. IMF Working Paper, No WP/06/277 (Washington: IMF).
- Waller, C. (1989) 'Monetary Policy Games and Central Bank Politics'. *Journal of Money, Credit and Banking*, Vol. 21, No. 4, pp. 422-32.
- Waller, C. and C. Walsh (1996) 'Central Bank Independence, Economic Behavior, and Optimal Term Length', *American Economic Review*, Vol. 85, No. 5, pp. 1139-54.
- Winkler, B. (2000) *Which Kind Of Transparency? On the Need for Clarity in Monetary Policy-Making*. ECB Working Paper, No 26 (Frankfurt: ECB).
- Wyplosz, C. (2003) 'The Duisenberg years'. *Central Banking*, Vol. 14, No. 2, pp.34-7.