Transparency and Governance

Monitoring the European Central Bank 6

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British Library Cataloguing in Publication Data A catalogue record for this book is available from the British Library

ISBN: 987-1-898128-86-1

Printed and bound in the UK by Page Bros.

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MECB Statement of Purpose

Since 1999 Europe has had a new central bank. It has formulated and announced its monetary strategy, explained its implementation in interest rate decisions, built a track record, and engaged in extensive discussion of its monetary policy choices. As a network of policy-oriented academic economists, CEPR continues to contribute to this debate. *Monitoring the European Central Bank* (*MECB*) brings together a group of economists internationally known for their work on macroeconomics and monetary policy. Assessing the European economy and the responses of the ECB, *MECB* seeks to influence not just public officials but also a wider audience, including the European Parliament, the media, and business.

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Acknowledgements

We would like to thank the ECB for its hospitality during our visit on 10 September 2007. We are extremely grateful that they generously shared their views with us, but we wish to emphasize that there should be no presumption that they agree with the opinions presented in the report. We are also indebted to Richard Baldwin, who skilfully oversaw our work.

Executive Summary

1. The European Central Bank (ECB) has a credibility and communication problem.

Euro-area inflation expectations are ringing alarm bells, and ECB credibility is sliding down. Inflation expectations at the two-and five-year horizons have reached 2% – a level that is at the very limit of ECB's own definition of price stability. This may be the result of the unusually long period of accommodative monetary policy in the euro area. Since late 2005 the ECB has removed this highly accommodative stance, but financial markets took a long time to understand the ECB's aim. If markets had correctly anticipated that the ECB was aiming at a policy tightening of 200 basis points within two years, monetary conditions would have been less expansionary and euro area inflation would have been lower even with the same path of interest rate decisions.

The way the Governing Council makes its interest rate decisions remains clouded.

With the policy rate now close to 'neutral', financial markets face greater uncertainty about the next policy move, including its direction. This shows how important it is for the public to understand the reasoning behind the ECB's policy decisions.

In a democracy, central bank independence must be constantly defended, and the only defence is popular support.

Central bankers are non-elected officials to whom an important task has been delegated. They must account for their decisions, of course, but when confronted with powerful critics, they cannot ignore public opinion. Communication is central to obtaining and retaining popular support. Support can be eroded by determined politicians, as evidenced by the declining trust in the ECB among French citizens. Such a development may tempt

more politicians to earn popular support by criticizing the ECB, and the repetition of largely misguided attacks may succeed in denting the reputation of the central bank. It should not be so. The solution is better communication, and not just toward financial markets. Communication, in turn, must rest on a clear strategy and a high degree of transparency.

2. The ECB needs to become more transparent. It should publish voting records.

Publishing the voting patterns of the Governing Council is generally informative. By allowing the public to weigh its members' evolving views, the balance of votes leads to a better understanding of how the Governing Council responds to economic information.

The ECB claims that its monetary policy decisions are always consensual, which suggests that voting records are useless. But consensus is a vague concept and need not amount to unanimity. Our analysis of the voting pattern of other central banks strongly suggests that it is extremely unlikely for a central bank to always decide by complete unanimity. This implies that voting records are generally informative.

■ Publishing voting records – even without attaching names to votes – would improve the situation.

We agree that the disclosure of individual monetary policy votes could subject central bank governors to national political pressures. Although the ECB may not wish to disclose the individual votes of members of the Governing Council, it can still publish unattributed voting patterns.

3. Controlling inflation by shaping expectations.

Policy effectiveness depends on the central bank's ability to shape expectations. Helping markets anticipate the next decision is not enough, because markets care much more about the future course of action. Markets and outside observers will accept basing their expectations on the bank's intentions only if they understand its logic, even if they do not necessarily agree.

The ECB should publish its anticipated interest rate path.

The future course of action, over and beyond the next decision, is probably the single most frequently asked question at press conferences or other events. The answer used to be as evasive as possible. Over time, evasiveness has been replaced by the use of code words, forcing central bank watchers to develop considerable linguistic skills.

The trade-off is not between an explicitly revealed interest rate path and complete silence; it is between explicit communication and foggy signals. Code-word communication might be seen as a good way of not getting boxed in and of avoiding the need to reach agreement in the policy-making committee. It also provides central banks with the ability to deny responsibility for

whatever the markets conclude from their code words. But the downside of code words is that they may be misinterpreted and that their very imprecision reduces the effectiveness of monetary policy, while they do not fully remove the (wrong) impression of pre-commitment.

4. The organization of the Executive Board and the Governing Council could be improved.

Setting monetary policy and explaining it to the public are difficult tasks that constitute a full-time job. Managerial responsibilities are distractions that reduce the effectiveness of board members in carrying out the task for which they have been selected.

The internal organization of the ECB should be reconsidered, separating the role of Executive Board members from the responsibilities of running the bank.

Managerial tasks should be delegated to the bank's managers, possibly supervised by a general manager. Responsibility for overseeing current business should be limited to the president and the vice-president. This would free up the time of the other four Board members who should be fully dedicated to preparing and communicating monetary policy decisions. It would also induce more delegation, since the president and the vice-president will wish not to be involved in any single managerial decision.

Since the start, appointments of ECB Board members by the European Council have been clouded by political manoeuvrings that have been anything but transparent.

That Board members have multiple functions – policy-making and management – dilutes the job description and widens the scope for political meddling. Board members – with the possible exception of the president and vice-president – should have a single responsibility, that of formulating and communicating monetary policy. This would make it harder for politicians not to appoint the best monetary experts.

The organization of Governing Council meetings should be reconsidered.

Meetings should be less frequent. Moving to the Federal Open Market Committee (FOMC) six-week frequency could help extend the time the Council dedicates to monetary policy decisions. Participation in the meetings dedicated to technical issues could be delegated to national central bank deputies, or organized by conference calls.

National central bank governors' attendance at the meetings.

The ECB does not report which Council members attended meetings, to say nothing of publishing minutes. The delegation of voting rights to an alternate is problematic.

Introduction

The European Central Bank (ECB) has been responsible for monetary policy in the euro area since 1999. Its primary objective, which is enshrined in Article 105(1) of the Treaty establishing the European Community, is to maintain price stability. According to the ECB's quantitative definition of price stability this amounts to a year-on-year increase in the Harmonized Index of Consumer Prices (HICP) for the euro area of below, but close to, 2%.¹ The ECB aims to achieve price stability over the medium term. So, how has the ECB performed in meeting its own objective?

Annual euro area-wide HICP inflation has been close to, but *above*, 2% since 2000 (see Table 1). This means that for most of its existence the ECB has failed to meet its primary objective of price stability, at least according to its own quantitative definition.

This outcome may be the consequence of unfortunate unexpected shocks. A better way to evaluate monetary policy, then, is to check what market expectations were before the occurrence of shocks. The Survey of Professional Forecasters (SPF), which the ECB has conducted quarterly since 1999, provides a way to examine expectations.² Figure 1 displays two- and five-year ahead expectations for euro area HICP inflation. Two-year ahead expectations have mostly been around 1.8%, while five-year ahead inflation expectations have been 1.9% most of the time. This is reassuring. Less reassuring is the recent evolution. Two-year ahead expectations rose to 1.9% in 2006, and both two-year and five-year ahead inflation expectations reached 2% in the third quarter of 2007. Clearly, the latter is no longer consistent with the ECB's definition of price stability.

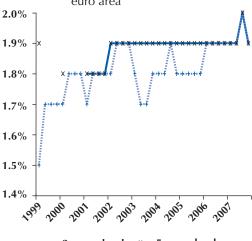
 Table 1
 Euro area inflation

Year	Euro area HICP inflation (annual percentage change)		
1999	1.1		
2000	2.1		
2001	2.3		
2002	2.2		
2003	2.1		
2004	2.1		
2005	2.2		
2006	2.2		
2007	2.1*		

^{*} Midpoint of December 2007 Eurosystem staff projection.

Source: Eurostat and ECB, *Monthly Bulletin* (December 2007).

Figure 1 Inflation expectations in the euro area



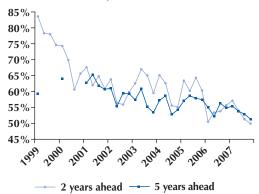
**** 2 years ahead ** 5 years ahead

Source: ECB Survey of Professional Forecasters.

¹ See, for instance, the ECB press release 'The ECB's monetary policy strategy', 8 May 2003.

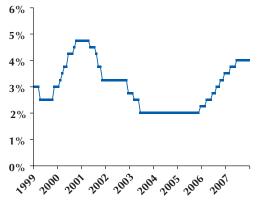
² For more information, see Garcia (2003).

Figure 2 ECB credibility (probability of euro area HICP inflation within 0–2%)



Source: ECB Survey of Professional Forecasters.

Figure 3 ECB main refinancing rate



Source: ECB.

The erosion of the ECB's credibility is further confirmed by the gradually declining likelihood with which SPF respondents expect euro area HICP inflation to be between 0% and 2% in the medium term. Figure 2 indicates that, at the two-year horizon, this probability has declined from an all-time high of 83.6% in the first quarter of 1999 to an unprecedented low of 50.0% in the fourth quarter of 2007.3 This means that according to the collective judgment of SPF respondents, there is only an even chance of the ECB delivering price stability in the euro area in two years' time. For a horizon of five years this probability has also steadily shrunk from around 60% to close to 50%. This suggests that the ECB's failure to deliver an inflation rate below 2% may now start affecting its credibility. Although President Trichet has stressed that the Governing Council 'consider the anchoring of inflation expectations to be absolutely decisive',4 ECB credibility appears to be drifting down.

More recently, inflation expectations seem to have been affected by the liquidity injections carried out by the ECB in August and September 2007 in response to the money market turbulence stemming from the fallout of the US subprime mortgage crisis. In particular, there has been a significant surge in the 'break-even inflation' – the inflation rate implied by the difference between the nominal yield on conventional bonds and the real yield on index-linked bonds. For the July 2009 French OATi (a bond indexed to the French CPI), this indirect measure of inflation expectation increased from 1.7% on 28 August to 2.01% on 31 October. For the July 2012 OATi, it rose from 2.02% on 27 August to 2.30% on 31 October. Although this measure also includes an inflation risk premium, the pronounced increase of this real-time, market-based measure of inflation sentiments is worrisome.

The unusually long period of accommodative monetary policy in the euro area may have played a role in the rise of inflation expectations over recent years. The ECB's key policy rate, the minimum bid rate on main refinancing operations (the 'refi' rate), was kept at 2% for more than two years, from June 2003 until December 2005 (see Figure 3). This policy was very expansionary and even led to slightly negative short-term real interest rates in 2004 and 2005. During the last two years, the ECB has gradually removed this highly accommodative monetary policy stance. Clearly, it was appropriate for the ECB to start increasing interest rates as euro area inflation rose back to 2.2% in 2005. It could even be argued, with the benefit of hindsight, that the removal of policy accommodation has

³ The graph was constructed by adding the probability mass for the ranges 0.0–0.4%, 0.5–0.9%, 1.0–1.4% and 1.5–1.9% from the SPF 'probability distributions' available at

http://www.ecb.int/stats/prices/indic/forecast/html/index.en.html.

⁴ See the press conference of 8 November 2007.

⁵ The three-month real EURIBOR was on average -0.03% and -0.01% in 2004 and 2005, respectively (see *ECB Statistics Pocket Book*, June 2006).

perhaps been too late and too slow, judging by the fact that inflation has persistently been above 2% and that inflation expectations have risen to 2%.

There is another way in which the removal of the accommodative monetary policy stance in the euro area has been unsatisfactory: financial markets failed to anticipate it. This is remarkable since the ECB has repeatedly noted that it does not aim to surprise markets about interest rates.6 Indeed, each rate hike is usually well foreseen because it has been signalled in advance by the ECB through the use of code words in the Introductory Statement to its monthly press conference or through other public statements. While the predictability of the next policy decision matters a lot for financial markets because surprises may lead to substantial gains or losses, it matters little for monetary policy effectiveness. As Figure 3 illustrates, monetary policy goes through cycles of several years, matching business cycles. What matters for policy effectiveness is how well the public understands the orientation of monetary policy, not just this month but over the longer run. In the ECB's own words, 'what matters in economic terms is not the predictability of the exact timing or size of a monetary policy decision but rather good anticipation of the broad direction of monetary policy decisions."

However, the keenest ECB watchers - financial markets - did not expect the extent of policy tightening over the last couple of years. For instance, at the end of 2004 and in the first half of 2005, financial markets appeared to have no inkling of the upcoming rate rises. In fact, market expectations for the threemonth EURIBOR in June 2007 declined to as low as 2.5% during this period (see Figure 4). Interest rate expectations for June 2007 subsequently increased along with the rises in the refi rate and gradually converged to 4.15%, the three-month EURIBOR in June 2007. But Figure 4 indicates that market expectations largely moved in line with rate hikes, never correctly anticipating where the end-point of the tightening would be. In addition, in January 2006, after the first rate hike, financial markets believed that the refi rate would not be set to 4% before 2015, as measured by the implied forward overnight interest rate in the euro area.8 However, the refi rate reached 4% in June 2007.

It is also interesting to note that euro area estimates for the 'natural' or 'neutral' real interest rate, at which output is at its natural rate and inflation is stable, are around 2–3%. Assuming an inflation rate of 2%, this implies a neutral nominal interest rate of about 4–5%. This observation makes it even more

Three-month EURIBOR expectations for June 2007

4.5%
4.0%
3.5%
2.0%
1.5%
1/2005
1/2005
1/2005

Note: EURIBOR expectations are measured by the implied interest rate on three-month EURIBOR futures with maturity in June 2007.

EURIBOR expectationsECB refi rate

Source: ECB Statistics Pocket Book.

⁶ See for instance the answers of the ECB president in the press conferences of October 1999, October 2000, May 2001 and July 2001.

^{7 &#}x27;Transparency in the monetary policy of the ECB', ECB Monthly Bulletin, November 2002, p. 62.

⁸ See ECB Monthly Bulletin, January 2006, Chart 11.

⁹ See 'The natural real interest rate in the euro area', *ECB Monthly Bulletin*, May 2004, pp. 57–69.

surprising that financial markets could have expected euro area interest rates to stay so low for so long, especially while inflation in the euro area had risen to 2.2%.

It appears that markets are merely groomed for the next policy decision but fail to understand and therefore to anticipate ECB monetary policy further ahead. This is a worrisome indication that ECB communication is unsatisfactory. Even more troublesome is that, if markets had correctly anticipated the steady pace at which the ECB removed its accommodating policy stance, monetary conditions would most likely have been less expansionary and euro area inflation would have been lower.

With the refi rate now close to 'neutral', the removal of policy accommodation in the euro area is coming to an end. This means that financial markets are now likely to face greater uncertainty about the next policy move, including its direction. At the same time, it is more difficult for the ECB to signal its policy intentions. Thus, it is becoming even more important for the public to understand the reasons behind the ECB's policy decisions. Unfortunately, the way the Governing Council makes its interest rate decisions remains clouded – an issue that we shall discuss in greater detail in Chapter 2. In addition, the experience of the last few years suggests that the ECB would have benefited from providing greater guidance to financial markets about its projected policy rate – an issue which is analysed further in Chapter 3.

Transparency

ECB transparency in perspective

Monetary policy transparency – which requires disclosure of the information that the central bank uses to make monetary policy decisions - increases the predictability of monetary policy and reduces macroeconomic uncertainty. Furthermore, it gives the central bank a strong incentive to deliver price stability since, under transparency, any wavering in its intentions is soon exposed and promptly penalized by financial markets through higher long-term nominal interest rates. In addition, combined with potential reactions by trade unions, transparency exerts a disciplinary influence; indeed inflationary monetary policy would quickly be detected under transparency and met with increased wage demands. More generally, transparency is intimately linked to accountability: the more transparent a central bank is, the less it can keep its intentions hidden from the public, to which it is accountable. Conversely, without transparency it is more complicated to evaluate a central bank, because monetary policy actions and outcomes only provide a noisy signal of the central bank's intention, since they also reflect economic disturbances. Thus it is hard to distinguish whether the performance of a secretive central bank is attributable to (good or bad) luck rather than skill.

The ECB has made great strides towards improving its transparency since 1999. This is confirmed by the central bank transparency index presented by Eijffinger and Geraats (2002). They find that the ECB initially ranked in the lower half among nine major central banks, but that it has overtaken the US Federal Reserve in terms of transparency scores, although the Fed has recently advanced through the enhanced disclosure of its forecasts. A comprehensive international comparison based on transparency data collected for 100 central banks by Dincer and Eichengreen (2007) even suggests that the ECB is now in the

top six of the most transparent banks in the world (see Box 1). Nevertheless, the ECB still falls short from best practice at the top three central banks, the Swedish Riksbank, the Reserve Bank of New Zealand and the Bank of England. There are important ways in which ECB transparency could be advanced; they are presented in Section 2.2, while Section 2.3 discusses the ECB's main transparency deficiencies.

BOX 1 ECB transparency: An international comparison

Central bank transparency is an elusive concept to measure. In principle, perfect transparency corresponds to a situation in which there is no asymmetric information between the central bank and the private sector. Thus, one approach to measure monetary policy transparency is to assess the extent to which information relevant for monetary policymaking is publicly available. The transparency index by Eijffinger and Geraats (2002) considers 15 items that cover the political, economic, procedural, policy and operational aspects of monetary policy-making. They only compiled their transparency index, which has a range from 0 to 15, for nine major central banks from 1998 to 2002, but Dincer and Eichengreen (2007) extended it to 100 central banks from 1998 to 2005. Table 2 shows the transparency top 10 according to this data set based on the average transparency index over the 1998–2005 period. The most transparent central banks in the world are those of New Zealand, Sweden and the United Kingdom. The sub-top is formed by Canada, the Czech Republic, the euro area and the United States. Trailing further behind are Australia, Japan and Switzerland.

The transparency trends for the top three central banks are shown in Figure 5, together with the performance of the ECB and Federal Reserve. In 1998 the Bank of England was the most transparent central bank in the world. Although the Old Lady took a few further steps, the Reserve Bank of New Zealand quickly bounced ahead after a makeover of its monetary policy framework that accompanied the introduction of the Official Cash Rate in 1999. But the Swedish Riksbank advanced even further following an amendment of the Sveriges Riksbank Act in 1999. It experienced an impressive increase in openness, soaring from a middling score of 9 to a near-perfect 14.5. The ECB also accomplished significant transparency gains, with a rise in its scores from 8.5 to 11, while the Federal Reserve improved a bit less and reached a level of 10 out of 15 on the transparency index, although the communication enhancements it implemented in November 2007 (which are described in Box 2) will boost its transparency scores.

According to the Eijffinger–Geraats index, the increase in ECB transparency is predominantly driven by the more extensive disclosure of economic information relevant for monetary policy-making, such as the ECB's macroeconomic projections and model. Although the ECB now achieves full scores in terms of economic as well as political transparency, it could still improve its scores for policy, operational, and especially, procedural transparency. In particular, compared to the top three central banks, the ECB falls short by not publishing minutes and voting records of its monetary policy meetings, an issue which is taken up further in Section 2.3.

 Table 2
 Central bank transparency top 10

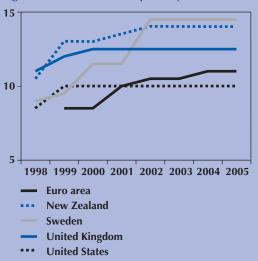
Ave	erage transparency index (1998–2005)
New Zealand	13.3
Sweden	12.4
United Kingdom	12.3
Canada	10.6
Czech Republic	10.0
Euro area*	10.0
United States	9.8
Australia	8.5
Japan	8.4
Switzerland	8.1

^{*} Euro area data are from 1999 to 2005.

Source: Dincer and Eichengreen (2007).

Figure 5 Indices of transparency

Source: Dincer and Eichengreen (2007).



ECB transparency improvements

Transparency of monetary policy in the euro area has improved significantly in several respects during the last eight years, including clarifications of the ECB's price stability objective and monetary policy strategy, and the disclosure of its macroeconometric model and projections.

2.2.1 Price stability objective

According to Article 105(1) of the Treaty establishing the European Community, the primary objective of the ESCB is to maintain price stability. In October 1998 the Governing Council decided that 'price stability shall be defined as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%' and that 'price stability is to be maintained over the medium term'. This means that an inflation range of 0–2% is considered consistent with price stability, which raises the question whether any inflation rate within this wide interval is equally desirable. For instance, since the HICP suffers from a positive measurement bias, an inflation level of, say, 0.5% may be closer to price stability than 0%. Another question is whether we can assume that the inflation range is symmetrical around the midpoint of 1%.

Although the ECB has not specified which level of inflation within the 0–2% range it aims for, it is possible to narrow it down using the ECB's quantitative reference value for M3 growth of 4.5% and the ECB's assumptions of a medium-term trend growth in the range of 2% to 2.5% for real GDP and -1% to -0.5% for M3 income velocity. Using the quantity equation, this implies an inflation rate between 1% and 2%, which suggests that the ECB in fact aims for the upper half of the 0–2% inflation range.

Moreover, the Governing Council confirmed its definition of price stability in May 2003 and further agreed that 'in the pursuit of price stability it will aim to maintain inflation rates close to 2% over the medium term'. ¹² So, within the price stability range of 0–2%, the ECB aims for inflation close to 2%. This is a welcome clarification of the ECB's quantitative definition of price stability. It indicates that the ECB does not target the midpoint of the 0–2% inflation range. But it fails to specify how close to 2% the ECB aims to maintain inflation on

¹⁰ See the press release 'A stability-oriented monetary policy strategy for the ESCB', 13 October 1998.

¹¹ See the press release 'The quantitative reference value for monetary growth', 1 December 1998. The Governing Council reviewed and confirmed these values annually until it decided on 8 May 2003 to maintain the reference value for M3 growth as a long-term benchmark for the assessment of monetary developments.

¹² See the press release 'The ECB's monetary policy strategy', 8 May 2003.

average. Is it around 1.5%, as implied by the quantitative reference value for M3 growth, or even closer to 2%? This issue was addressed by ECB Chief Economist Otmar Issing: 'this "close to 2%" is not a change, it is a clarification of what we have done so far, what we have achieved – namely inflation expectations remaining in a narrow range of between roughly 1.7% and 1.9% – and what we intend to do in our forward-looking monetary policy.'¹³ Thus, the ECB's definition of price stability of 'below, but close to, 2%' appears to amount to a level of inflation (expectations) around 1.7% to 1.9%.

From Figure 1, it appears that financial markets believe that the ECB aims for an inflation rate even closer to the ceiling of the 0–2% range. Although the two-year and five-year ahead expectations for euro area HICP inflation have nearly always been between 1.7% and 1.9% according to the ECB's Survey of Professional Forecasters, the longer term, five-year ahead SPF inflation expectations have been at 1.9% most of the time. And recently, medium-term inflation expectations even reached 2%. This suggests that financial markets no longer believe that the ECB will maintain HICP inflation below 2%, as would be required to satisfy its definition of price stability.

Furthermore, the probability with which Survey of Professional Forecasters respondents expect euro area HICP inflation to be in the range from 1.5% to 1.9% in five years' time has been below 40% for most of the time, including 16 out of 18 quarters after the clarification of the quantitative definition of price stability in May 2003. This indicates that according to the collective judgment of the professional forecasters polled by the ECB, there is more than a 60% chance that the ECB will fail to deliver inflation below but close to 2% in the medium term.

Despite the Governing Council's formal clarification that price stability corresponds to an annual rate of HICP inflation in the euro area of below, but close to, 2%, this specification remains remarkably fuzzy for a 'quantitative definition'. The fact that medium-term inflation expectations have gradually increased to 2% suggests that the ECB would benefit from providing a more precise definition of price stability to provide a firmer anchor for inflation expectations. Transparency about the primary objective is also important for ECB accountability.

Another issue is the ambiguity of the 'medium term' horizon over which the ECB intends to achieve price stability. This horizon is all important both to shape expectations and for accountability purposes. Indeed, it makes a lot of difference if the ECB intends to bring inflation within its desired – but still unknown – range in two or four years. It deeply affects expectations and, therefore, the transmission of current policy

¹³ Statement in response to a question at the press seminar on the evaluation of the ECB's monetary policy strategy, 8 May 2003.

decisions to the economy and to inflation itself. A vague horizon also makes it nearly impossible to fault the central bank; if it cannot be faulted, it is not accountable. Accountability requires evaluation and evaluation, requires unambiguous criteria.

2.2.2 Monetary policy strategy

The quantitative definition of price stability is just one part of the monetary policy strategy of the ESCB that the Governing Council agreed to adopt in October 1998.14 The two other key elements of this strategy are (1) a prominent role for money which centres on the quantitative reference value for monetary growth, and (2) 'a broadly-based assessment of the outlook for price developments and the risks to price stability in the euro area'. This so-called two-pillar strategy has generated confusion. Its main deficiency was that it failed to indicate which pillar prevails in case of conflicting signals. This is particularly problematic because of the noisiness of the monetary pillar. In addition, the use of a reference point rather than a range for monetary growth makes it hard to assess when monetary developments are considered a risk to price stability. These problems were exacerbated by the fact that the monetary pillar was always mentioned first in the explanation of the monetary policy assessment in the Introductory Statement to the monthly press conference, thereby suggesting its greater importance.

After an extensive internal review of its monetary policy strategy, the Governing Council decided in May 2003 to clarify the role of the two pillars. In particular, 'the monetary analysis mainly serves as a means of cross-checking, from a medium to long-term perspective, the short to medium-term indications coming from economic analysis'. The monetary policy assessment in the Introductory Statement now starts with the economic analysis, which identifies the risks to price stability in the short to medium term. This is followed by the monetary analysis, which assesses the trends in inflation in the medium to long term and acts as a cross check.

This clarification of the role of the two pillars in the ECB's monetary policy strategy is a significant improvement. Nevertheless, there remains much murkiness about the role of the monetary pillar in the ECB's policy decisions. Gerlach (2003) interprets the revised two-pillar strategy as follows: the monetary pillar aims at anchoring inflation in the long run, on the assumption that money growth determines inflation at that horizon. This leaves the ECB free to use the economic pillar to limit output fluctuations in the short to medium run. He finds,

¹⁴ See the press release 'A stability-oriented monetary policy strategy for the ESCB', 13 October 1998.

however, that in the long run it is inflation that tends to cause money growth and not the other way round. The picture that emerges is that, in the short run, the economic pillar drives inflation through the impact of output fluctuations; it is the succession of these effects that determine longer-run inflation, while money is demand-determined, since the ECB sets the nominal interest rate. This interpretation is in line with the standard interpretation of the inflation-targeting strategy.¹⁵

This interpretation is confirmed by an extensive description and evaluation of the ECB's monetary analysis by ECB staff economists (Fischer *et al.*, 2006). This study finds that the monetary and economic analyses often point in the same direction, but not always. When the signals differed between 2002 and 2004, the study concludes that the economic analysis played a larger role.

2.2.3 Macroeconometric model and projections

The ECB had been urged by the Committee on Economic and Monetary Affairs of the European Parliament to publish its macroeconometric model and projections. 16 It first released semiannual projections for the euro area constructed by Eurosystem staff in the Monthly Bulletin of December 2000 and presented its euro area-wide macroeconomic model in January 2001 (Fagan et al., 2001). In September 2004 the ECB started releasing semiannual macroeconomic projections produced by ECB staff, which are basically an update of the Eurosystem staff projections. As a result, the ECB now publishes E(S)CB staff projections every quarter (in March, June, September and December). This is an improvement because it gives the private sector up-to-date information about the macroeconomic projections used by the central bank. Although they are but one of many forecasts produced by various public and private institutions, the E(S)CB macroeconomic projections probably provide a more important input into the policy decision. In fact, the quarterly staff projections have played a greater role in policy communication since June 2004, when the ECB started to publish them on the day of the monetary policy meeting (one week ahead of the Monthly Bulletin) and to include them in the Introductory Statement of the press conference.

 $16 \ See \ European \ Parliament \ Resolutions \ A5-0035/1999 \ and \ A5-0169/2000.$

¹⁵ A more supportive analysis is provided by Beck and Wieland (2007). They argue that the monetary aggregates provide a way of checking potential errors in the output gap – the heart of the economic pillar – which is notoriously difficult to pinpoint. This is a shrewd argument, but many variables are likely to be helpful when assessing the output gap, which leaves open, yet again, the emphasis on one of them.

The staff projections concern euro-area HICP inflation and real GDP growth, including its main components (private consumption, government consumption, gross fixed capital formation, exports and imports). They are presented as a range for the current and for the subsequent calendar year. The width of the range represents the uncertainty surrounding the projections and corresponds to twice the average absolute value of the differences between previous projections and actual outcomes. This presumes that the uncertainty surrounding the projections always equals the historical average, which may not be an accurate reflection of anticipated risks. In addition, it would be useful to enhance the presentation of the forecasts by using fan charts, which provide much greater detail about the projected profile and its uncertainty.

The E(S)CB staff projections are based on several assumptions about interest rates, exchange rates, oil prices, euro-area fiscal policy and the international environment. Although every assumption matters, the one concerning the interest rate is particularly important and tricky. Initially, it was assumed that short-term market interest rates remain constant over the projection horizon. The path for long-term interest rates, instead, was assumed to be in line with market expectations derived from the yield curve. This was problematic because it was inconsistent. Indeed, the market-based expectations for the long-term interest rates - which matter for growth and inflation - almost never assume a constant policy rate. To avoid this inconsistency, since June 2006 the E(S)CB staff projections have been based on the assumption that short-term interest rates, measured by the three-month EURIBOR, are in line with forward rates derived from the yield curve, while the assumed path for long-term interest rates, measured by euro area ten-year nominal government bond yields, continues to be based on market expectations. Oil and non-energy commodity prices are assumed to develop in line with market expectations derived from futures prices, but bilateral exchange rates are assumed to remain constant over the projection horizon and assumptions regarding fiscal policy are based on national budget plans in the euro area.

Although the frequency and internal consistency of the E(S)CB macroeconomic projections have risen, there remains significant scope for improvement. First of all, the projections are constructed by E(S)CB staff and are not endorsed by the Governing Council. To understand the monetary policy decisions made by the Governing Council, however, it is essential to know their own views about the macroeconomic outlook. Staff projections do not enjoy the authority that would come from being approved by the Governing Council. We return to this important issue in Chapter 3.

The ECB has made clear that the Governing Council pays 'great attention' to the staff projections and considers them an 'important input'.¹⁷ At the December 2006 press conference

President Trichet summarized their role as follows: 'We take these Eurosystem staff projections as an important information, we consider it, then we make our own judgement and we take our decision.' Nevertheless, it is sometimes very hard to understand the policy decision in light of these staff projections. For instance, on 31 August 2006 the Governing Council decided to maintain the refi rate at 3% while the inflation projections for 2006 and 2007 were 2.3-2.5% and 1.9-2.9%, respectively (based on the assumption that the average three-month EURIBOR increased from 3.1% in 2006 to 3.9% in 2007). The midpoints of these unprecedentedly high inflation projections were well above the 2% ceiling deemed consistent with price stability and suggested an urgent need for further policy tightening beyond EURIBOR market expectations. Instead, the Governing Council merely expressed 'strong vigilance' and waited a month. The Governing Council's inaction is even more puzzling, considering the fact that in June 2006 it had raised the refi rate to 2.75% while staff projections for both inflation and output were slightly lower (based on the same average EURIBOR path). The lack of urgency displayed by the Governing Council after alarmingly high staff projections for inflation is baffling. If the Governing Council's view of the macroeconomic outlook differs significantly from the staff projections, it should state so explicitly. How else can outside observers grasp the logic of its decisions?

Another shortcoming is that not all the assumptions underlying the projections are explained. This makes it hard to evaluate what comes from the macroeconometric model and what is based on staff judgment. In addition, the projections are based on market expectations for interest rates, which may differ from the path of policy rates that the ECB thinks is needed to achieve price stability. As a result, the projections for inflation and output growth may actually be different from what the ECB really expects to achieve with its intended policy. This important issue is further discussed in Chapter 3.

Opacity of ECB decision-making

Although ECB transparency has improved over the years, there are still important respects in which the ECB remains unduly opaque. As pointed out in Section 2.1, the ECB falls significantly short compared to other central banks because it fails to publish voting records and minutes (or some other timely account of deliberations) of the monetary policy meetings of the Governing Council. The ECB has been urged repeatedly in European Parliament Resolutions on the ECB

¹⁷ For instance, see the answers by President Trichet at the press conferences of 31 August 2006, 8 February 2007 and 8 March 2007.

Annual Report to start publishing its minutes and non-attributed voting records.¹⁸

The ECB's lack of transparency in this respect is also picked up by the Eijffinger-Geraats index, where the ECB receives its lowest scores for 'procedural transparency', an indicator which describes information about how monetary policy decisions are made. Although the ECB has described its conceptual framework for monetary policymaking, its two-pillar strategy leaves it – like monetary policy strategies at most other central banks – with a wide degree of discretion. Furthermore, despite its clarification of the two pillars in its strategy, there remains much uncertainty regarding the role of the long-term, monetary pillar.

So, the ECB's two-pillar strategy alone is insufficient to provide concrete guidance to financial markets about how it is likely to set monetary policy. As a result, markets need to learn the ECB's policy reaction over time, with no guarantee that this reaction remains stable as time passes by. This learning process would be greatly accelerated if markets had access to the judgments and reasoning of the Governing Council. The experience with other central banks shows that voting records and minutes of monetary policy meetings provide invaluable information to enhance the public's understanding of how monetary policy committees are likely to respond to incoming economic data and adjust their monetary policy stance. The importance of voting records is discussed in Section 2.3.1 and the role of minutes is analysed in Section 2.3.2.

2.3.1 Voting records

At the heart of monetary policy-making is the decision to adjust the policy instruments. In the euro area these include three key interest rates, namely the ECB's main refinancing ('refi') rate and the rates on its marginal lending and deposit facilities, which have been 100 basis points above and below the refi rate, respectively, since April 1999. According to Article 12(1) of the E(S)CB Statutes, the Governing Council of the ECB is responsible for formulating monetary policy in the euro area, including decisions relating to key interest rates. The procedure for decisions by the Governing Council is set out in Article 10(2) of the E(S)CB Statutes, which stipulates that:¹⁹

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. [emphasis added]

¹⁸ See European Parliament Resolutions P5-TA(2002)0358, P5-TA(2003)0337, P6-TA(2004)0037 and P6-TA(2006)0464.

¹⁹ Additional details on voting by the Governing Council are provided in the ECB Rules of Procedure, Article 4.

Since monetary policy decisions are not among the few exceptions to the simple-majority rule, Article 10(2) implies that the ECB's key interest rates shall be adjusted as soon as at least half of the voting members of the Governing Council agree.

Nevertheless, it appears that the Governing Council does not use that decision rule but instead takes its monetary policy decisions by *consensus*. For instance, at the press conference of 12 September 2002, President Duisenberg stated that 'Today's decision was, as so often, again a consensus decision', and President Trichet even spoke of a 'fully-fledged consensus' at the press conference of 3 August 2006.

Unfortunately, 'consensus' is a concept that lacks the clarity of 'simple majority'. It may mean 'unanimity', 'general agreement' or the agreement of most of those concerned. Nevertheless, a consensus is generally thought to require a greater degree of agreement than just a simple majority. It is perhaps closer to a supermajority of two-thirds. On the other hand, consensus may not be determined so much by the quantity of disagreement but rather by the intensity of it. For instance, if many members disagree but only have minor objections against a proposal, it could probably still be called a consensus. But if a few members strongly disagree, labelling it a consensus appears inappropriate.

Despite the lack of consensus about the precise meaning of consensus, it is clearly different from a simple majority, either because it requires agreement by significantly more than one half or because it hinges on the absence of any strong sense of disagreement even among a few. As a result, it is easy to conceive of situations under which a decision would be taken by simple majority but not by consensus. Suppose, for instance, that 12 out of 19 members of the Governing Council think that it would be desirable to raise the refi rate, but that the governors of a few national central banks, say two of them, vehemently object. Then a decision by simple majority would lead to a rise in the refi rate, whereas a decision by consensus would leave rates unchanged. It could even be that a small but vocal minority - maybe the central bank governors of the larger countries – systematically imposes its views on a silent majority. This does not have to be the case, it may even never happen, but we just don't know.

Clearly, this has important implications for monetary policy-making. In particular, a central bank that decides by consensus whether to adjust the policy rate is more likely to be inertial than a central bank that acts by a simple majority. Perhaps this helps to explain why the ECB kept its main policy rate at 2% for over two years (from 2003 to 2005). However, if the Governing Council were to keep interest rates the same because there is no consensus for changing them due to the strong objections of a couple of NCB governors, while at least 10 out of 19 members would rather have a rate hike, then that would be in violation of Article 10(2). Unfortunately, there would be no way to find out

since the ECB does not publish the minutes or voting records of Governing Council meetings. On several occasions the press conference revealed that the Governing Council did not vote about the monetary policy decision.²⁰ For instance, at the press conference following the monetary policy meeting of 8 April 1999, at which the Governing Council decided to lower the refi rate from 3% to 2.5%, in response to a question whether it was a unanimous vote, President Duisenberg answered: 'For the final decision, I am afraid I have to tell you that we did not take a vote.' Moreover, at the press conference of 10 January 2008 President Trichet even declared: 'As you know, we do not vote and have never voted in the past.' This seems inconsistent with Article 10(2) of the E(S)CB Statutes, which stipulates that the Governing Council should act by a simple majority.

There is another compelling, economic reason for publishing the voting patterns of the Governing Council: it is generally informative and helps the public to understand monetary policy decisions. For instance, an interest rate decision based on a unanimous vote indicates that the monetary policy-makers apparently considered the economic outlook to be sufficiently clear to make the policy action uncontroversial. However, if a decision to, say, leave the refi rate the same, was made with 10 members of the Governing Council in favour and 9 against, then the economic signals were apparently ambiguous and made the vote a very close call. As a result, the publication of voting patterns allows the public to weigh the economic signals by the balance of votes, which leads to a better understanding of how the Governing Council responds to economic information in the setting of interest rates.21 So, economic agents are able to learn the Governing Council's monetary policy reaction more quickly, which is likely to increase the predictability of policy rate decisions, not only in the short run but also in the medium term.

In addition, the balance of votes could be used directly as a proxy for the policy inclination or bias. For instance, if 12 members of the Governing Council voted to hold the policy rate while 7 preferred a hike, then this indicates that the Governing Council is inclined to tighten monetary policy, which raises the likelihood of a rise in the policy rate at one of the next meetings. But if the 7 dissenters voted for a decrease, then that suggests a rate cut is more likely to be forthcoming. And if there were only 2 dissenters, then a rate change would be less probable. So, the voting pattern provides an indication of the direction of the

²⁰ See the press conferences of April and October 1999, February 2000, and February, April and May 2001.

²¹ This presumes that all members of the Governing Council have the same monetary policy objectives, as laid down in the E(S)CB Statutes. To the extent that policy objectives differ (e.g. due to the ECB's fuzzy quantitative definition of price stability), it becomes more difficult to learn the Governing Council's monetary policy reaction (which provides another reason why clarity in this respect is desirable).

next interest rate move as well as a signal of how imminent interest rate decisions are.²² This is why the release of voting records is bound to increase the short-run predictability of monetary policy. This conclusion is supported by empirical evidence, as shown by Gerlach-Kristen (2002) using the published voting records of the Monetary Policy Committee of the Bank of England.

The only circumstance under which voting records would be uninformative is when monetary policy decisions are indeed *always* made unanimously and are known to be so. However, Table 3, which provides evidence from other central banks, shows that monetary policy decisions are very often not unanimous. We analysed the voting behaviour of the monetary policy committees of eight central banks that publish voting patterns: Banco do Brasil, Bank of England, Bank of Hungary, Bank of Japan, Bank of Philippines, Czech National Bank, US Federal Reserve, and Swedish Riksbank. For each central bank we computed which percentage of monetary policy decisions were made unanimously.

 Table 3
 Rate of unanimity about monetary policy decisions

Central bank	Committee size	Mon Total	etary policy de Unanimous	
Swedish Riksbank	6	60 68	37 58	62 85
Bank of Philippines Czech National Bank	•	122	71	58
Banco do Brasil Bank of England	9–7* 9	68 122	52 54	76 44
Bank of Japan Bank of Hungary	9 9–12*	158 31	72 13	46 42
Federal Reserve	12	115	83	72

^{*} The committee size of the Banco do Brasil and Bank of Hungary changed from 9 to 7 and 12, respectively.

Sources: Authors' computations and Swedish Riksbank, Executive Board minutes, February 2000–May 2000; Bank of Philippines, Monetary Board minutes, January 2002–May 2007; Czech National Bank, Bank Board minutes, January 1998–June 2007; Banco do Brasil, Copom minutes, April 1993–April 2007; Bank of England, MPC minutes, June 1997–June 2007; Bank of Japan, Policy Board minutes, January 1998–June 2007; Bank of Hungary, MC minutes, December 2004–June 2007; Federal Reserve, FOMC minutes, February 1993–May 2007.

²² This essentially assumes that minority votes are a leading indicator for future policy decisions. Nevertheless, disclosure of the balance of votes is not a perfect substitute for the publication of a policy inclination or bias. For instance, members of the Governing Council may all agree that it would be desirable to increase interest rates by 10 basis points and therefore unanimously decide to leave rates the same for the moment. Then the voting record is balanced despite the inclination towards tightening.

The rate of unanimity ranges from 85% to 42% across the central banks in our sample. The strongest degree of agreement is present within the monetary policy committees of the Bank of Philippines, Banco do Brasil and US Federal Reserve. A large majority of their monetary policy decisions is taken without any dissenting vote, namely 85%, 76% and 72%, respectively. More disagreement is apparent from the voting records of the Swedish Riksbank and Czech National Bank, for which unanimity prevails for only 62% and 58% of monetary policy decisions, respectively. The least likely to show agreement are the Bank of Japan, Bank of England and Bank of Hungary. Less than half of their monetary policy decisions are made unanimously. Note also that the committees are ranked in Table 3 by increasing size and there is a correlation of -0.25, which means that a large committee, such as the 19 member ECB Governing Council, is less likely to be unanimous.

The results in Table 3 strongly suggest that it is extremely unlikely for a central bank to always decide by complete unanimity. For the median unanimity rate of 60%, the likelihood of making monthly monetary policy decisions for 9 years (the lifespan of the ECB) with complete unanimity at every meeting is a tiny $1.1 \times 10^{-22}\%$. Even for the highest unanimity rate in the sample, 85%, the probability of unanimity throughout nine years of monthly meetings is only $2.4 \times 10^{-8}\%$. So, any pretence that the monetary policy decisions made by the Governing Council are always unanimous is simply incredible.

The analysis above suggests that it is very likely that there are regularly disagreements within the Governing Council about monetary policy decisions. Presenting the decision under the cover of 'consensus' gives a misleading sense of agreement about policy actions. It gives the false impression that the decision was straightforward. Monetary policy decisions are made under such uncertainty, however, that it is quite common to have disagreements, even among reasonable and well-informed policy-makers who share the same policy objectives.

Therefore, there is no reason for the ECB to pretend that its monetary policy decisions are always consensual. Occasionally, the press conference reveals that there were some dissenting views, most recently on 6 December 2007. The ECB should now move to the next logical step and publish the voting patterns of the Governing Council. The experience at other central banks shows that disagreements among monetary policy-makers are common, so there is no reason to fear disclosing them.

The arguments presented so far are in favour of publishing the voting pattern or balance of votes for monetary policy decisions: they do not necessarily imply that individual voting records should be published. There are obvious benefits to having access

²³ This assumes that the probability of unanimity is independent across monetary policy decisions.

to not just the voting aggregates but also individual votes. For instance, a member who is in the minority may just be a habitual dissenter, but she could also be an influential policymaker whose votes have shown to be a reliable leading indicator for future policy decisions. Clearly, knowing the identity of the voters is useful for predicting policy actions.

Furthermore, the disclosure of attributed voting records enables individual accountability of central bankers, since their policy actions are observed and can therefore be publicly evaluated. In particular, central bankers whose votes have regularly revealed poor judgment could be sidelined by not reappointing them when their terms of office expire. Thus, the release of individual voting records enables governments to identify and only reappoint those central bankers who have shown themselves highly qualified.²⁴

In a monetary union, however, disclosure of individual monetary policy votes could be detrimental because it could subject national central bankers to greater political pressures. For instance, it may create uproar in France if it were revealed that the governor of the Banque de France voted for a rise in the refi rate to stem euro area inflationary pressures while the French economy is slumbering into a recession. The French government may no longer be inclined to reappoint him when his term expires. More generally, the publication of attributed voting records may backfire in a monetary union and could introduce a nationalist bias in (the interpretation of) individual votes, as central bankers try to protect themselves from the risk of domestic political pressure.²⁵ This would seriously undermine the mandate of the E(S)CB to set monetary policy for the benefit of the entire euro area. Even if the ECB may not wish to disclose the individual votes of members of the Governing Council, it is still likely to benefit from publishing unattributed voting patterns.

2.3.2 Minutes and policy explanations

The minutes of monetary policy meetings allow a peek inside the 'black box' of policy-making. This makes them an invaluable tool in the communication and therefore understanding of monetary policy. The publication of minutes enhances monetary policy transparency in three ways. First, it presents an overview of the economic information that was considered at the monetary policy meeting. Second, it describes the views that monetary policymakers have of current macroeconomic and financial developments. Third, it includes an account of the discussion of the policy choices. As a result, the timely publication of minutes

²⁴ Gersbach and Hahn (2004) show that the publication of individual voting records can be socially beneficial when governments use them to identify and reappoint central bankers with desirable characteristics.

²⁵ This argument is formalized by Gersbach and Hahn (2005).

is an important component of the communication strategy of an increasing number of central banks.

The ECB has not published the minutes of the meetings of the Governing Council, exposing it to a potentially large transparency gap. The ECB partly remedies this problem, however, by resorting to two other communication tools. First of all, its *Monthly Bulletin* presents an elaborate analysis of economic developments in the euro area. Second, the Governing Council issues an 'Introductory Statement' after each monetary policy meeting, which is followed by a press conference by the ECB president and vice president. Although both these tools could in principle be used to provide a policy explanation that is as effective as the publication of minutes, the ECB falls seriously short in terms of the second and third points listed above.

The *Monthly Bulletin* has many merits, including informative boxes on topical issues, and it amply covers the ground of the first point. But it does not provide any information on the views of the Governing Council, except for the editorial which is basically the same as the Introductory Statement to the press conference.

The Introductory Statement, which under the previous ECB president was sometimes jokingly dubbed 'Duisenberg minutes', is the only formal account that sheds some light on the considerations of the Governing Council. It does so mainly in the form of a brief discussion of risks to (the outlook for) economic growth and price stability, summarized as a 'balance of risks' (which is discussed in greater detail in Chapter 3). This partly covers the second aspect of minutes. The Introductory Statement, however, provides little insight into the economic views of members of the Governing Council and their diversity. Moreover, it is completely devoid of any information about the actual policy deliberations, including the arguments that were discussed to weigh the policy options.

Economists are famous for being two-handed – they realize there are generally two sides to an argument and weighing the pros and cons can be far from trivial. But in the Introductory Statement the members of the Governing Council appear to be perfect clones that are curiously one-handed – diversity of opinion and counterarguments are systematically ignored. This is not an accurate reflection of actual practice. According to President Trichet:

We have various views inside the Governing Council, as it is necessary. Collegial wisdom implies that you exchange all possible information, arguments and analyses. The pertinent entity which is the Governing Council relies very much on a collegial, very confident and very comprehensive exchanges of views. And there emerges from that exchange of views a majority sentiment which can from time to time be a unanimous sentiment. ²⁶

The Governing Council, however, fails to share its insights and 'collegial wisdom' with financial markets and the wider public.

The ECB Introductory Statement pales in comparison to the minutes of the Federal Reserve and Bank of England. The FOMC minutes give a real sense of FOMC members' views on the current macroeconomic situation and outlook as well as developments in financial markets. They also summarize the relative merits of the policy options discussed at the meeting and note the reservations of any dissenters. The minutes of the Bank of England reveal the key variables that the Monetary Policy Committee considers decisive for the interest rate decision. Instead, the ECB Introductory Statement resorts to regularly repeating that the Governing Council is (closely) 'monitoring all developments'. Such a sanitized summary of policy deliberations deprives financial markets of an invaluable opportunity to understand better the considerations behind monetary policy decisions, which are essential for predictability of monetary policy in the medium term.

The desire for more information about the ECB's policy deliberations is also evident from the questions at the ECB press conference. The answers sometimes reveal useful information, for instance whether or not the decision was unanimous, or which policy options were discussed.²⁷ Although the press conference could be a useful opportunity to remedy any transparency defects, the characteristically evasive responses by President Trichet merely seem to underscore the ECB's penchant for secrecy.

It is desirable that the ECB stops hiding behind E(S)CB Statute, article 10(4). Although it states that 'The proceedings of the meetings shall be confidential', the fact that it allows that 'The Governing Council may decide to make the outcome of its deliberations public' provides sufficient flexibility to release (non-verbatim) minutes.

3

Communication

The role of expectations

Since Friedman's celebrated criticism of the (old) Phillips curve, it is generally accepted that inflation is shaped by expectations. Long-standing research has confirmed this fundamental insight and more recent theoretical advances – the New Keynesian Phillips curve – have further reinforced our understanding of the role of expectations. The implication is that monetary policy works chiefly by shaping expectations. As Michael Woodford aptly puts it, monetary policy is mainly the management of expectations.

Central banks can shape expectations through their actions, but every action can be and typically is interpreted in several different ways. Indeed, there is no simple relationship between an action and the range of possible implications of such an action. For the central bank to affect expectations, it must explain its decisions in a way that narrows down this range. Policy effectiveness requires apt communication.

The importance of this observation cannot be overestimated. It has taken time for central banks to translate it into everyday practice. For a long time, communication was considered a nuisance, as exemplified by Greenspan's famous quip: 'Since I've become a central banker, I've learned to mumble with great incoherence. If I seem unduly clear to you, you must have misunderstood what I said' (as quoted by the *Wall Street Journal*, 22 September 1987). Nowadays, central bankers devote considerable effort to be clear and well understood.

Expectations of what?

Taylor rules, a nice if simplistic description of what central banks do, attract attention to expectations of inflation and of the output gap as key drivers of interest rate

decisions. Although the ECB's primary objective is price stability, its aim to achieve it over the 'medium term' leaves sufficient flexibility to take into account other considerations, such as the effect on the real economy. Most central banks now routinely report their forecasts of these two variables, although several among them, including (as we have already noticed) the ECB, present them as staff projections and emphasize that the policy-makers do not necessarily share the staff's views. This significantly reduces the information value of forecasts, even if most observers can safely assume that the policy-makers have little reason to disagree with professionally produced forecasts prepared by a trusted staff.

Indeed, when decisions are made by a committee, it stands to reason that each member may have his/her own expectations, and some of them may be more influential than others. This is why the publication of the committee's own forecasts provides a much clearer view of what 'the central bank thinks'. In order to publish committee forecasts, the policy-makers must negotiate among themselves, a process that reflects the members' relative influence at that point in time. Even more transparent, and informative, is the new approach adopted at the Federal Reserve whereby it releases the distribution of the forecasts across individual FOMC members (see Box 2).

The new FOMC procedures go to the heart of the ECB's reluctance to reveal its own minutes and diverging opinions of Governing Council members. Fearing that too much would be read in this divergence, the ECB claims that Governing Council members reach consensus, which we argued above is incredible. The FOMC procedure provides considerable information about its members' views without, however, subjecting them to individual disclosures. It is hard to see why the ECB could not follow suit.

While inflation and output gap forecasts may encapsulate the essential ingredients that enter policy decisions, other considerations are bound to matter. Modern central banks are, implicitly or explicitly, inflation targeters, and the ECB is no exception. Its mandate is to deliver price stability, and its own definition of price stability implies that it has an explicit objective. Calling this a 'target' does not stretch the meaning of 'objective'. Inflation targeting, however, is by no means solely focused on inflation: state-of-the-art central banks are *flexible* inflation targeters. Flexibility includes two important considerations:

- 1. It allows for other considerations than just inflation to enter the list of preoccupations, such as stabilization of the real economy.
- 2. The speed at which inflation is brought back to its targeted level depends on the type of shock that has hit the economy (such as an oil price shock or financial crisis) and that has pushed inflation away from its target in the first place.

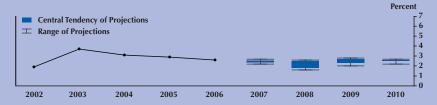
BOX 2 More transparency at the FOMC

On 14 November 2007, the Federal Open Market Committee (FOMC) announced that, following internal deliberations, 'as part of its ongoing commitment to improve the accountability and public understanding of monetary policy-making, it will increase the frequency and expand the content of the economic projections that are made by Federal Reserve Board members and Reserve Bank presidents and released to the public'. This decision is explained by Bernanke (2007). The most striking change concerns the publication of more detailed information about the distribution of forecasts across individual FOMC members, an issue that is highly relevant for the ECB's Governing Council.

Starting in November 2007, the FOMC minutes now include, four times a year, information about the forecasts of four key variables (real GDP growth, unemployment, inflation and core inflation) made by the 19 FOMC members for the current and following three years.²⁸ Individual forecasts are not released but for each variable, the minutes now include:

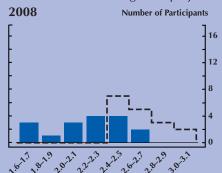
- a table and a figure that shows the range of projections, i.e. the minimum and maximum forecasts, and the 'central tendency' of the projection, which is the range that remains when the three highest and the three lowest forecasts are excluded. As an example, Figure 6a shows the October 2007 output growth projections;
- a figure that shows the year-by-year distribution of individual forecasts, compared to those made at the previous forecasting exercise. Figure 6b displays the October 2007 real GDP growth forecast for 2008 (the dashed line shows the distribution of the previous forecast).

Figure 6a FOMC output growth projections



Source: Minutes of the Federal Open Market Committee, 30–31 October 2007.

Figure 6b Distribution of FOM Cmembers' real GDP growth projections



Note: October 2007 projections are indicated with bars, June 2007 projections by dashed lines.

The 2008 growth projection in Figure 6a reveals a wide range of views, which are strikingly wider than growth projections for subsequent years. It also shows that the individual forecasts are skewed toward the pessimistic end. Figure 6b indicates that, in fact, the range of views is very wide, with no clear convergence of views among FOMC members. Taken together, these two pieces of information suggest that the FOMC as a group is very open to a wide range of possible outcomes, with significant concerns on the down side. This could be explained just using words – and emerges from the written minutes – but words could not convey the extent of disagreement as clearly and precisely as the figures do. This means that, even though only one member dissented from the interest rate decision in October 2007, this decision was a difficult one to reach. It also suggests that one can expect the FOMC to change its policy stance as new information emerges and narrows down the range of views.

A further interesting aspect of the new procedure is that the forecasts produced by each member are now explicitly based on her or his own assessment of 'appropriate monetary policy'. This means that the interest rate path that lies behind these projections differs from member to member, an issue dealt with in Section 3.4. The implication is that these projections indicate what FOMC members believe is the best possible outcome given the current and expected circumstances. It would greatly help if the individual interest rate path projections were also revealed, in the same way as the other variables.

²⁸ Previously, FOMC forecasts for the current and next calendar year were published twice a year in the Monetary Policy Report to the Congress, in the form of a table with the range and central tendency of the individual forecasts.

Flexibility requires, therefore, that monetary policy-makers present their views on more than just the inflation and output outlook. At times they may focus on particular issues that affect the policy conclusions drawn from their usual indicators. They may even need to explain when and why, under certain circumstances, they intend to proceed differently compared to their usual approach.

So, flexibility means that central banks generally care about other things than just inflation and output gaps: while all of them ultimately affect inflation, each matters in its own right. Two examples are discussed in Box 3.

BOX 3 Central banks care about more than inflation

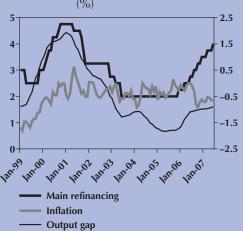
Asset prices

A mission of all central banks is to ensure the smooth functioning of financial markets under their watch. It follows that they cannot turn a blind eye when these markets are distressed. Of course, a financial crisis is bound to hurt growth and, most likely, to have a deflationary impact, which justifies central bank action. In the short run, however, the need to ensure the smooth functioning of financial markets may require drastic actions of a size that far exceeds the likely inflation impact of the crisis. The Eurosystem's prompt reaction to the August 2007 crisis is a case in point. One can justify the massive injection of liquidity while holding the interest rates constant as a proof that a central bank can deliver on its mandate of financial market stability without changing its monetary policy stance. Yet, at the time of writing, it is too early to tell whether this will be enough. As previous episodes have shown (1987, 1998, 2001), the Eurosystem may still need to lower its interest rates over and beyond what inflation forecasts may suggest. This need not be inflationary if the economy is pulled down. Figure 7 shows what happened during the previous episode of financial turmoil. The rapid decrease of interest rates in 2001 – which started before the shake-up of financial markets – could not prevent a steep decline in the output gap but managed to stabilize inflation.

Housing prices

The ongoing decline in US housing prices is intensely scrutinized, as is the Fed's reaction. Should the Fed shed aside its focus on inflation and adjust the monetary policy stance, temporarily at least? The early Fed reaction was negative. At its 7 August 2007 meeting, the FOMC reiterated its concern about inflation. A few weeks later, at its 18 September 2007 meeting, the FOMC voted to cut the interest rate by 0.5%. The Committee was careful to link its decision to a changed outlook regarding both inflation and output growth, yet the magnitude of the change was striking.

Figure 7 Interest rate, inflation and the output gap in the euro area (%)



Note: Main refinancing rate and inflation: left scale; Output gap: right scale.

Sources: Main refinancing rate and inflation: Monthly Bulletin, ECB; output gap: Economic Outlook, OECD.

The question, then, becomes one of communication. Even though, in fact, they worry about more than just inflation, should central banks take the risk of being dragged into discussions about what they care about, and even how much weight they put on the other considerations? We believe that the answer is positive.

A first reason is that credibility is not necessarily bolstered when there is a discrepancy between words and deeds.²⁹ Although a central bank may argue that what matters is the record, which is a necessary condition for credibility, and not cheap talk, trust is never acquired forever. Strong credibility does not rule out mistakes, in particular in difficult times. This is when it becomes important for the central bank to explain its logic carefully and, possibly, adjust it if it turns out that this logic is challenged by different, sensible analyses. Such exchanges are only possible if the central bank's words are taken seriously.

A further consideration is that, as noted previously, policy effectiveness depends on the central bank's ability to shape expectations. Current deeds are not enough because they do not precisely map into a single future course of action. Markets and outside observers will accept to base their expectations on the bank's intentions only if they understand its logic, even if they do not necessarily agree.

By influencing expectations of short-term interest rates, a central bank can indirectly affect interest rates with longer maturities. Greater influence over interest-setting for all maturities – the yield curve – means that the impact of monetary policy is more effective. This is often called conducting monetary policy by 'management-of-expectations'.

Expectations are crucial because central bank decisions – the choice of an interest level – do not mechanically act on the channels of transmission of monetary policy. As noted by Blinder (1998), all these channels (longer-term interest rates, the exchange rate, asset prices, credit availability) rest on expectations of future decisions. The currently set interest rate is just one step in a long march whose direction and speed of movement must be foreseen by the markets as they decide, in turn, to price the variables that make up the channel of transmission. As noted by Woodford (2005), 'the current level of the overnight interest rate as such is of negligible importance for economic decision making'.

Finally, an important argument in favour of truthful communication relates to political pressure. Governments are occasionally tempted to blame their central banks for undesirable outcomes. They also typically operate on much shorter time horizons, which leads them to be more willing to

trade off short-term gains against long term-term pain. More generally, interest rate decisions have some redistributive effects. For example, higher rates favour lenders to the detriment of borrowers, and exporters prefer weak exchange rates. These effects are generally limited for the population at large but they may be sizeable for particular constituencies and businesses – thus providing fertile ground for interest groups to lobby for a particular direction of monetary policy.

Of course, central bank independence has been established precisely because these various pressures have, in the past, resulted in unacceptably high inflation rates. In a democracy, however, independence must be constantly defended, and the only defence is popular support. Central bankers are non-elected officials to whom an important task has been delegated. They must account for their decisions and, when confronted by powerful critics, they cannot ignore public opinion. In today's world, communication is central to obtaining and retaining popular support. Box 4 shows that this support can be eroded by determined politicians.

BOX 4 Trust in the ECB

Twice a year, Eurobarometer asks citizens whether they trust the ECB. As the left-hand chart in Figure 8 shows, overall, euro area citizens tend to trust the ECB more as time passes by. This is the case in all member countries except France, as the right-hand chart documents. French citizens have always displayed limited trust in the ECB, probably because central bank independence only came in 1993, as one of the preconditions for euro area membership. Trust has declined over the last two years, first in the wake of the rejection of the European constitution and then in 2007 during the presidential campaign. In both cases, politicians have realized that they could earn popular support by criticizing the ECB. The repetition of largely misguided attacks has succeeded in denting the reputation of the central bank.



Note: EU-11 includes all euro area member countries except Greece and Slovenia. *Source:* Eurobarometer, various issues.

Communicating to whom?

3.3.1 The general public

As the previous discussion indicates, central banks have to address various constituencies. The first is the general public, which has little patience for the fine details of monetary policy and whose perceptions often differ from those of specialists. A clear example is the widespread view that the launch of the euro has been accompanied by a significant increase in prices (see Figure 9). The reasons for this (mis)perception are well known – significant increases in frequently purchased items that weigh little in price indices – but its resilience is challenging. Nearly a decade later, many citizens keep blaming the euro for inflation even though inflation has never been so low for so long in every single member country.

It is undoubtedly difficult to uproot deep misconceptions. Yet, it is clearly in the Eurosystem's interest to do so. Obviously, it has not been able to reach out to the main media, which routinely repeat misguided allegations. Neither has it been able to diffuse tensions with political leaders. In several countries, respect for the central bank has long been established, and it would be a political liability to criticize the ECB. This is not the case everywhere, however, and tensions between central banks and Treasuries are generally part of the policy folklore.

Some efforts have been made to diffuse this tension. The president of the Eurogroup attends the policy meetings of the Eurosystem and the president of the ECB attends the meetings of the Eurogroup. These formal meetings certainly allow mutual exchanges of information, but it is unlikely that the participants engage in open discussions. The Eurosystem observes that it cannot conduct casual discussions with 13 (soon 15) finance ministers. Even though the president of the ECB probably cannot meet regularly with the finance ministers, this view is a bit disingenuous. Each governor of a national central bank can easily exchange views with the corresponding finance minister, and some do. Admittedly euro area governors do not enjoy the same authority of their counterparts outside the area, which precludes a discussion among equals, yet such meetings could help clear misunderstandings. In addition, nothing precludes regular, informal meetings between the presidents of the Eurogroup and of the ECB. The ECB has apparently rejected such meetings, which it sees as an encroachment on its independence. One could argue, on the contrary, that the president of a central bank that enjoys considerable constitutional independence can easily afford and should not be concerned by regular exchange of views with the president of the Eurogroup.

Note: Q9. Concerning the evolution of prices for the last five years, would you say that the euro has . . .? % by country.

Source: Flash Eurobarometer 193, September 2006, Gallup.

Finally, the ECB is obligated to report once a year to the European Parliament, the only elected institution to which it is formally accountable. In fact, the president of the ECB has agreed to meet the Parliament's Committee for Economic and Monetary Affairs every quarter. In addition, the other ECB Board members also meet the Committee on a fairly regular basis. The limited visibility of these meetings – as opposed, for instance, to the high media visibility of the hearings that the US Congress regularly holds with the Chairman of the Board of Governors of the Federal Reserve System - indicates that accountability is far from strong. There are several reasons why this is so. To start with, the Committee includes 51 members. It is simply impossible for such a large group, which includes MEPs from all political persuasions and all nationalities, to conduct tough hearings. The event is rather unstructured, and the questions put to the president of the ECB cover a wide range, from pointed questions to general declarations, including very parochial ones. Obviously, the Eurosystem bears no responsibility for this state of affairs.

Still, the ECB could do more to enhance the status of these meetings. Even if this may seem mundane, the title of these meetings, Monetary Dialogue, remains far short from what it should be, namely 'hearings'. Apparently, the ECB refuses to upgrade the title. More importantly, the president of the ECB sticks tightly to the script of the press conference that followed the previous policy-making meeting of the General Council. In contrast to the Congressional hearings of the chairman of the Fed, which are feverishly expected, widely reported and intensely scrutinized, the European media have long learnt that there will be no news and, understandably they devote little space, if any, to reporting on the Monetary Dialogue. While the president of the ECB cannot break stunning news every quarter, he could occasionally use the event to provide some important signals, if only to share his thoughts beyond the formal monthly press conference statements. Accountability will remain formal, and not effective, as long as the Monetary Dialogue is not fundamentally restructured, a task that is incumbent upon both the European Parliament and the ECB.

3.3.2 Financial markets

Financial markets represent the second constituency of central banks. As previously emphasized, these markets are the link between the short-term interest rate set by the central bank and the impact on the economy via the setting of longer-term interest rates, of stock prices and of the exchange rate, all of which are driven by expectations. Indeed, when we argue about the importance of shaping expectations, we essentially have the financial markets in mind. Unsurprisingly, most central banks

devote the bulk of their communication to the markets, sometimes talking to market participants directly, sometimes mediated by the press. One negative, largely unavoidable implication is that much of central bank talk is incomprehensible to the broader public.

Nearly all central banks endeavour not to surprise the markets with their interest rate decisions. This has not always been the case. For a while, the theoretical principle was that 'only unanticipated money matters'. This has led central banks to seek actively to be opaque to markets. New theory and much empirical evidence has now discredited this principle, and most central banks actively undertake to 'prepare markets' for their next decision. While this is progress, it is far from being enough. Because the current policy rate is largely irrelevant, ³⁰ making its next adjustment predictable is of limited usefulness. The main advantage is to avoid short-term market reactions, which can be temporarily destabilizing. Short-term market gyrations can have large financial implications for market actors, but they are of little importance for the impact of monetary policy on the real economy and on inflation.

Far more important for policy effectiveness is shaping longerrun expectations. Ideally, a central bank would like to determine the shape of the whole yield curve, not just its very short end. This is impossible, of course, but this is where communication becomes essential and challenging. We return to this issue in Section 3.4.

3.3.3 Monetary experts

The third constituency of central banks is monetary experts, chiefly in academia. Monetary experts matter inasmuch as they act both as watchdogs and as providers of ideas – even though many recent monetary policy innovations have originated in central banks. Most central banks acknowledge this role and maintain active links with monetary experts.

Many of these links do not belong to the area of communication. They include regular exchange of personnel, including at the policy-making level,³¹ frequent joint conferences and personal contacts. In many ways, communication with this constituency is combined with communication with the financial markets. The (esoteric) language is the same.

³⁰ It is not irrelevant in countries where meaningful interest rates, e.g. on variable rate mortgages, are indexed to the short-term rate.

³¹ The ECB is a rare outlier in this respect. No member of the Board has ever been hired directly from the rank of academics. It bears mentioning that the ECB does not choose its Board members. The decision is taken by the European Council.

There are a few areas, however, where communication is specific. Experts are interested in the methods central banks use to produce forecasts and in how these forecasts are interpreted. They are also interested in having access to data that are needed for them to evaluate the decisions of the central bank. Most central banks oblige and release a large amount of technical information. Experts are often invited to visit central banks for extended periods of time, during which they have access to otherwise confidential data. Sometimes they are even invited to follow closely the preparatory work leading to policy decisions. Finally, experts are also occasionally invited to evaluate officially the record of policy-making, which gives them access to policymakers and to large quantities of documents. A good example is Norges Bank Watch, which provides an annual independent expert review of monetary policy-making in Norway. It is funded by the Norwegian Ministry of Finance and part of the formal accountability of the bank.

During its short history the Eurosystem has developed extensive ties to monetary experts, both from Europe and from the rest of the world, including from the most prestigious universities. The main lapse has been the 2004 evaluation of the two-pillar strategy that was entirely conducted internally, which may explain why it has generally not been well received. Other central banks are more open to formal outside expertise. Examples of important external assessments include the forecasting techniques of the Bank of England (Pagan, 2003), and the evaluations of the policy strategy of Reserve Bank of New Zealand (Svensson, 2001), and of the Swedish Riksbank (Giavazzi and Mishkin, 2006).

What should be communicated?

While communication aimed at the general public should mainly consist of explanations of past decisions and clarification of misconceptions, including responses to critics, central bank communication aimed at the markets and experts has to be highly technical. Beyond preparing the markets for the next policy decision, the main objectives are to provide explanations of the underlying strategy and to help markets as they need to price longer-term bonds, stocks, the exchange rate and other assets.

3.4.1 Explaining the strategy

3.4

While the broad contours of a central bank's strategy are well known and understood, most decisions are finely balanced. While the direction of interest rate changes is often, but not always, clear, the timing and, occasionally, the size is almost never self-evident. Central banks must take into account how to

weigh various considerations: the speed at which inflation should return to the desired range, concerns about the output gap or employment, the evolution of credit and liquidity, the degree of uncertainty and, from time to time, the evolution of the exchange rate and asset prices.

There is no single magic formula. Taylor rules provide a simplified summary of some of these considerations but, as we already discussed, they are too coarse to serve as an exhaustive summary of central bank thinking. The parameters of the rule need not be time-invariant, and the rule ignores the other considerations previously mentioned. Still the rule encapsulates the essential: the relative importance of inflation and output stabilization and the speed of reaction. One way or another, the central bank must signal the essential.

At this stage, no central bank has undertaken to reveal its monetary policy reaction function, if only because, under flexible inflation targeting, the parameters are time-varying. Already, however, some policy-making committees are known to discuss parameter estimates and debate whether and how they could reveal this information. Many central banks, on the other hand, publish forecasts of inflation and the output gap, complete with error margins. Here – as we already mentioned – one must distinguish between staff forecasts and policy committee forecasts. Obviously, committee forecasts matter more than staff forecasts. Several central banks indicate that there exists no such thing as a committee forecast, each member has his/her own views. This is perfectly logical except that those central banks that do publish committee forecasts prove that some aggregation of individual views is possible. In the end, however, the difference between staff forecasts and policy committee forecasts can easily be exaggerated. In fact, the assumptions behind the forecasts are much more important.

3.4.2 The role of the interest rate path

Any forecast is based on a large number of assumptions and forecasts, including the interest rate, the price of energy, the exchange rate, asset prices, the evolution of the world economy, etc. We already explained that the interest rate assumption is particularly crucial because, in contrast to the other variables which are beyond the central bank's control, the short-term interest rate is the monetary policy instrument.

It is worthwhile to further examine this issue here. For a while, central bank forecasts were based on the assumption that the interest rate will remain constant over a specific horizon. It soon transpired that this is an inconsistent assumption. Indeed, if the inflation forecast indicates that inflation is diverging from its target, keeping the interest rate constant is not an option. Since it is a fairly sure bet that the interest rate will be changed in a

predictable direction, the inflation rate will differ from the one actually 'forecasted'. More ominously, it is not only the inflation rate forecast that is unrealistic, but the forecasted values of many other variables such as the exchange rate, asset prices and the output gap are bound to differ as well. As these key variables, which are closely monitored by monetary policy observers, interact with each other, a forecast that assumes constant interest rates can be very misleading.

Indeed, in their own assumptions, private forecasters and the markets incorporate what they believe is a plausible path for the interest rate, and evaluate the impact on the exchange rate and asset prices. The result is a yield curve that incorporates market expectations. This has led some central banks, including the ECB, to assume an interest rate path consistent with the observed yield curve. This is a progress, for the central bank's forecasts are now internally consistent. However, they only provide a measure of expected outcomes under the assumption that the central bank considers the market forecast, which aggregates participants' assumptions and expectations, as realistic. Put differently, the central bank forecasts are informative about expected future outcomes to the extent that the markets correctly foresee the interest rate path that the central bank intends to follow.

In that case, either the central bank agrees with the markets and their expectation-driven pricing of assets is efficient from the policy viewpoint, or not. In the first case, there is no need for more. In the latter case, to enhance policy effectiveness, the central bank ought to correct market expectations. It may be unable, for a while, to be convincing, but there is no logic in embracing market expectations that significantly diverge from its own intentions. At any rate, whatever the central bank does, it must rely upon some expected interest rate path. If it uses market expectations, it essentially acquiesces in these expectations; if it does not, and communicates its own expected path, it has the potential to shape market expectations and produce the desired yield curve. If it does not agree with the market, and yet refrains from saying so, it engages in double talk of some sort; as the recent episode discussed earlier illustrates, this undermines policy effectiveness.

An additional, but lesser problem of conditioning on market forecasts of policy rates is that these forecasts require making assessments of the risk (term) premia embedded in interest rates. There is not complete agreement on the best way to deal with this issue, currently an active area of economic research. Market participants and experts may not be completely happy with the way the central bank chooses to extract market forecasts of the policy path from the yield curve; it could even generate doubts about the quality of the central bank forecasts. Additionally, since yield curves shift continuously, it is sometimes unclear which yield curve the central bank has used to extract implicit

forward rates, particularly since typically a few weeks elapse between such observations and the publication of forecasts. Revealing its own forecasts allows the central bank to bypass this vexing issue.

3.4.3 Arguments against publishing the expected interest rate path

So far, only four central banks (Iceland, New Zealand, Norway and Sweden) publish the expected interest rate path. Others have expressed various reservations. This section discusses these arguments.

A first argument is that policy-making committees do not actually discuss the expected interest rate path. This is a surprising argument. It would imply that these committees do not look beyond the current decision which, as previously noted, is of little policy importance in and by itself. Not only are all monetary policy-makers likely to have a view of where the interest rate is going, but if they don't, they should. Revealing the interest path would then have the added advantage of greatly improving the quality of the analysis of policy-setting committees.

A second argument is that committee members would find it hard to agree on an expected interest rate path. This is undoubtedly true. If a policy projection with time-varying rates is announced, this clearly requires that the monetary policy committee come to an agreement on this policy path. Although Lars Svensson argues that this could be done by a 'simple' voting procedure, this procedure is far from simple and is unlikely to work. This is why it is sometimes argued that forcing committee members to make a decision about the future path of policy rates, and not just the rate today, may complicate matters so much that the decision-making process could be impaired. Although committee members might have some idea of a future direction for policy rates, so the argument goes, they are likely to have trouble thinking about a precise path. Furthermore, getting committee members to agree on such a path might be very difficult and could end up being very contentious.

This is a serious argument. Still, two central banks where decisions are made by committees, the Bank of Norway and the Riksbank, have designed procedures to elicit foreseen interest rate paths. In the Bank of Norway, the procedure involves repeated iterations between the monetary policy committee and the staff. The committee is presented with a first path and the associated forecasts of all key variables, including inflation and the output gap. The committee then proposes alternative interest rate paths, which the staff uses to produce the corresponding forecasts. The procedure is repeated until at least a majority of the committee agrees on the path and its

implications.³² Of course, the expected interest rate path is accompanied by the usual range of uncertainty in fan charts, to reflect doubts held by each committee member and disagreements among members.³³ The new FOMC approach provides an alternative. As explained in Box 2, FOMC members are actually required to use their own projections about the desirable interest rate path – the 'appropriate monetary policy' – to produce their individual forecasts of key macroeconomic variables.

Another serious argument is that central banks do not want to be boxed in. A version of this argument is that any future deviation from the pre-announced interest rate path would entail a loss of credibility. Obviously, any expectation is conditioned by currently available information so that new information is likely to imply that interest rates actually set in the future will differ from previously announced expected interest rate paths. It is sometimes feared that markets and observers will fail to capture this subtle distinction. This is a surprising argument, perhaps rooted in the older tradition of central bank mystique when words by monetary authorities were rare and meant to be definitive. Sophisticated markets can easily grasp that forecasts are inevitably different from actual outturns. The Fed Chairman made the point clear when he stated that 'The only economic forecast in which I have complete confidence is that the economy will not evolve along the precise path implied by our projections' (Bernanke, 2007). After all, market participants constantly make and revise forecasts. All that it takes is to explain which new information has led to a change of view and why, a useful bit of communication in and by itself. It may well be that, initially, some less sophisticated observers will complain about lack of consistency, but this would be a complete misunderstanding that should not carry weight, at least after some experimentation.

Although there is a risk that the interest rate path announced by the central bank is perceived as a precommitment, this problem could be mitigated by announcing the path not for the policy rate but for a short-term interest rate, which evidently cannot be directly controlled by the central bank. For instance, the Reserve Bank of New Zealand uses the 90-day interest rate. Similarly, the ECB could announce a path for three-month EURIBOR, which is already one of the key variables underlying the E(S)CB staff projections.

As we often see in political campaigns, when a candidate changes his position – even if this reflects changes in circumstances and thus reveals sound judgment – such a shift is

³² Obviously, this procedure takes time. The issue of how much time is dedicated to committee deliberations is taken up in the next chapter.

³³ The range of uncertainty is currently based on historical fluctuations. A better procedure would be to produce the range directly on the basis of committee members' assessment. This is likely to be the next transparency frontier.

vulnerable to attacks by his or her opponents claiming that he or she does not have leadership qualities. Wouldn't central banks be subject to the same criticism when changing circumstances would force them to change the policy rate from its previously projected path? Not necessarily, for two main reasons. Campaign promises are, by definition, subject to opinion polls; politicians make them to garner votes. Independent central banks do not have to win elections. In addition, the objectives of independent central banks are tightly set; as a mechanism forcing central banks to relate their changing views to their immutable obligation to achieve the assigned objectives this has much to recommend for accountability purposes. Central bankers who publish their interest rate forecasts report that, indeed, the precision of their preparatory work and deliberations has risen since they adopted that strategy.

A fourth argument is that the exercise is not as informative as promised because the range of uncertainty is likely to become large quickly as the horizon extends further in the future. This is correct, as Figure 10 illustrates. This is precisely why the committee is not boxed in.

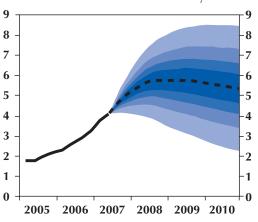
3.4.4 Assessment

Combining these arguments, we see that there is a risk, especially early on, of misunderstanding – although the example illustrated in Box 5 would suggest that such a risk is not necessarily large – and that the information value of the interest rate path is limited by the associated range of uncertainty. Against that, we note that the formulation of monetary policy and its effectiveness stand to be enhanced by the publication of the interest rate path. This is a trade-off and it cannot be ignored.

The market's need for *some* indication is real and central banks do respond. Indeed, the future course of action, over and beyond the next decision, is probably the single most frequently asked question at press conferences or other events. The answer used to be as evasive as possible. Over time, evasiveness has been replaced by the use of code words. This, in turn, has led to the emergence of central bank watchers who develop considerable linguistic skills at interpreting the official statements.

The trade-off is not, therefore, between an explicitly revealed interest rate path and remaining completely silent on the issue of future moves. It is between explicit communication and foggy signals. The latter can be seen as a good way of not getting boxed in and of avoiding a requirement to reach an agreement within the policy-making committee. It also provides central banks with the ability of denying responsibility for whatever the markets conclude from their code words. We have argued that these are weak arguments. The downside of code words is that they may be misinterpreted and that their very imprecision reduces the

Figure 10 The expected interest rate path from the Bank of Norway



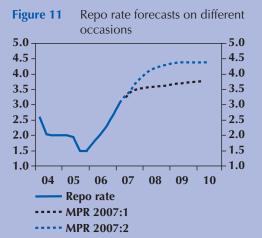
Source: Monetary Policy Report 2/2007, Bank of Norway.

BOX 5 Deviating from an interest rate path

In the February 2007 Monetary Policy Report the Riksbank announced an interest rate path according to which the policy rate would remain below 4% over the entire forecast horizon: 3 years. In the following Monetary Policy Report, published in June, the bank revised its path. In the new path the policy rate crossed the 4% level as early as December 2007. The reason for the shift was the information on wage settlements concluded after the February Report had been published. The Riksbank explained that such settlements implied higher wage growth than had been anticipated. In order to keep inflation close to the target this required a higher level of policy rates.

Our new assessment [of economic conditions] means that the repo rate needs to be raised more in the future than was considered justified in February. This is because the labour market has tightened, the central wage agreements have been higher and fiscal policy has been more expansionary than the Riksbank estimated at the time (Riksbank, Monetary Policy Report, 2007:2, p. 5).

Explaining the shift was not made easier by the fact that the February interest rate path had been the first published by the Riksbank: it was therefore deviating from its first-ever published path. The Riksbank was very transparent: in June it published the graph reported in Figure 11 which shows the old and the new interest rate path. Financial markets seemed not to be surprised by the shift and to understand what motivated the new path. It helped that in February, anticipating the possibility that wage settlements may turn out higher than expected, the Riksbank had published two alternative interest rate paths, one based on the main scenario, the other on a high-wage scenario (Figure 12).



Source: Riksbank, Monetary Policy Report 2007:2.

Figure 12 Repo rate forecast under different assumptions about wage settlements 6 6 5 5 4 3 3 2 1 0 05 80 09 10 Repo rate Main scenario ---- Higher wages Source: Riksbank, Monetary Policy Report 2007:1.

effectiveness of monetary policy, while they do not fully remove the (wrong) impression of precommitment, as the ECB experience during the months of August and September 2007 shows.

Code words

The ECB's traffic light system of code word communication has proved useful to signal the next step in the process of gradually removing the accommodative policy stance in the euro zone. (We describe the 'traffic light system' in detail in Box 6 at the end of this chapter.) However, it has several serious limitations. First of all, the system is short-sighted and does not give any guidance beyond the next policy move. For instance, as discussed in Chapter 1, during 2005–7 it would have been desirable to give some indication of the projected pace of policy tightening, especially because it turns out that financial markets greatly underestimated the speed of rate hikes. In October 2005,

when the refi rate was still at 2%, financial markets expected the policy rate to increase gradually but not reach 4% until 2015, based on implied forward overnight interest rates for the euro area (see Figure 13). After the first policy move, financial markets began to anticipate swifter policy tightening, but in April 2006 they still did not expect the policy rate to be 4% until 2010, and in October 2006 even not until 2012. However, the refi rate was set to 4% in June 2007. Clearly, financial markets failed to anticipate the ECB's pace of policy tightening, which featured a rate hike every two or three months from December 2005 until June 2007. It would have been beneficial for the ECB to provide better guidance on the interest rate increases that were projected to remove the accommodative policy stance.

A second limitation of the ECB's traffic light communication is that it does not give any indication of the refi rate around which the tightening process is likely to come to an end. This could be close to the 'neutral' interest rate, at which policy is neither accommodative nor contractionary, but it may also be beyond it, for instance to prevent a build-up of inflation expectations. Furthermore, financial markets appear to be uncertain about the 'neutral' refi rate. Figure 13 shows that the 10-year ahead implied forward overnight rate for the euro area has been quite volatile, moving up and down between 4% and 4.6%, suggesting that it is not well anchored.

Thirdly, the traffic light system of communication has only been used to signal a policy tightening. Perhaps it could be modified by expanding the ECB's vocabulary of code words to signal an easing of policy rates, but this could cause confusion as financial markets try to learn the meaning of new (perceived) code words. There is already quite some uncertainty about the interpretation of specific words and phrases in the Introductory Statement, as is evidenced by the frequent questions about this at the press conference.³⁴ The ability to provide guidance about rate cuts has become a pertinent issue since the refi rate is now close to its 'neutral' level.

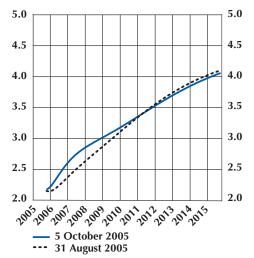
In addition to the traffic light code words, the ECB regularly refers to the balance of risks in the Introductory Statement to the press conference. This could in principle be used to overcome the third shortcoming of the ECB's communication policy, since risks could naturally be upward, balanced or downward. The balance of risks is used in several ways, however, and is not always straightforward to interpret. First, there is the balance of risks vis-à-vis the macroeconomic projections, which are published in March, June, September and December, and since June 2004, also discussed in the Introductory Statement to the press conference. The ECB has always stressed that these projections are constructed by E(S)CB staff and do not

³⁴ For instance, there have been questions about the meaning of 'foreseeable future' (7 January 1999), 'appropriate' (6 March 2003 and 1 April 2004), 'progressive(ly)' (6 July and 31 August 2006) and 'vigilance' (4 October 2007).

Figure 13 Market expectations of ECB interest rate path

Implied forward euro area overnight interest rates

(percentages per annum; daily data)

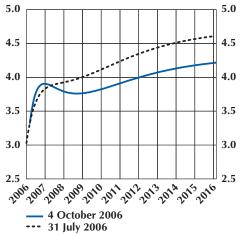


Source: ECB estimate.

Notes: The implied forward yield curve, which is derived from the term structure of interest rates observed in the market, reflects, among other things, the market expectation of future levels for short-term interest rates The method used to calculate these implied forward yield curves was outlined in Box 4 of the January 1999 issue of the Monthly Bulletin. The data used in the estimate are zeró coupon swap contracts.

Implied forward euro area overnight interest rates

(percentages per annum; daily data)

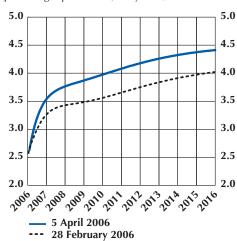


Source: ECB estimate and Reuters.

Notes: The implied forward yield curve, which is derived from the term structure of interest rates observed in the market, reflects, among other things, the market expectation of future levels for short-term interest rates The method used to calculate these implied forward yield curves was outlined in Box 4 of the January 1999 issue of the Monthly Bulletin. The data used in the estimate are zero coupon swap rates.

Implied forward euro area onernight interest rates

(percentages per annum; daily data)

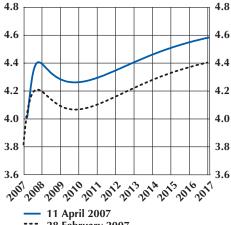


Source: ECB estimate and Reuters.

Notes: The implied forward yield curve, which is derived from the term structure of interest rates observed in the market, reflects, among other things, the market expectation of future levels for short-term interest rates The method used to calculate these implied forward yield curves was outlined in Box 4 of the January 1999 issue of the Monthly Bulletin. The data used in the estimate are zero coupon swap rates.

Implied forward euro area onernight interest rates

(percentages per annum; daily data)



28 February 2007

Source: ECB estimate and Reuters.

Notes: The implied forward yield curve, which is derived from the term structure of interest rates observed in the market, reflects, among other things, the market expectation of future levels for short-term interest rates The method used to calculate these implied forward yield curves was outlined in Box 4 of the January 1999 issue of the Monthly Bulletin. The data used in the estimate are zero coupon swap rates.

Source: ECB Monthly Bulletin, 10/2005, 4/2006, 10/2006 and 4/2007

necessarily reflect the judgment of the Governing Council. But since December 2005 the discussion of the staff projections in the Introductory Statement has been complemented by an explicit statement of the Governing Council's view on the balance of risks to the projections or outlook. So, it appears that the Governing Council's assessment of the macroeconomic projections is communicated through the balance of risks. Unfortunately, it is not clear whether this indicates how the Governing Council perceives the skewness within the staff's projection range, or how the Governing Council's projection range differs from the staff's.

In the months in which no staff projections are published, the Introductory Statement generally still refers to the balance of risks to the outlook for price developments and economic growth. However, this is even harder to interpret since the outlook is typically only specified in qualitative terms.

Last but not least, there is the balance of risks vis-à-vis price stability and economic growth (e.g. 'upside risks to price stability'), which is regularly mentioned in the 'summing up' paragraph. This seems to reflect the Governing Council's overall assessment.

The ECB's different uses of the balance of risks could easily give rise to confusing situations. For instance, suppose that the E(S)CB staff projections indicate that inflation is expected to soar well above 2% but that the Governing Council's view is more benign with a positively skewed inflation forecast close to 2%. Then, the risks to the outlook for price developments are downward vis-à-vis the staff projections, but upward when compared to price stability. This illustrates that the balance of risks can be a befuddling tool to convey the Governing Council's assessment. Instead, it would be desirable for the ECB to publish macroeconomic projections that are endorsed by the Governing Council, if only because these are the ones that matter for interest rate decisions.

Nevertheless, the overall balance of risks to price stability and economic growth could provide a useful indication of the ECB's policy inclination. The only problem is that the direction of the policy inclination is ambiguous when the risks to price stability and economic growth are of opposite signs (e.g. upward for price stability and downward for economic growth). However, ECB President Trichet clarified in the press conference of 4 October 2007 that 'we do not balance the risks to the real economy and the risks to price stability to make a judgement of which risk is more important. That is not the way we proceed. We analyse the real economy ... But our decisions on monetary policy are based on the risks to price stability.'

So, the ECB could use the balance of risks to price stability to provide guidance about the direction of the next policy move. This, however, does not address the other two shortcomings of the ECB's system of code word communication. These can only be fully overcome by publishing the anticipated interest rate path.

BOX 6 A guide to the ECB's traffic light system

The ECB has (perhaps by accident rather than design) developed a system of communication resembling a traffic light to signal its next policy move. The signals are code words used in the Introductory Statement to the ECB press conference, in particular the phrases 'monitor closely', 'monitor very closely' and 'strong vigilance'.

 Table 4
 Code words in Introductory Statement to ECB press conference (from mid-2005)

Monitor closely	Monitor very closely	Strong vigilance	Rate hike of 25bp
7/2005ª	9/2005 ^b	10/2005–11/2005	12/2005
12/2005	1/2006	2/2006 ^c	3/2006
3/2006	4/2006	5/2006	6/2006
6/2006		7/2006	8/2006
	8/2006	9/2006	10/2006
	10/2006	11/2006	12/2006
	12/2006–1/2007	2/2007	3/2007
	3/2007-4/2007	5/2007	6/2007
6/2007-7/2007		8/2007	
	9/2007–12/2007		

a In July 2005 'monitor carefully' was mentioned instead. There was no press conference in August 2005.

Source: Introductory Statements at ECB press conferences.

Since 2005, nearly every increase in the refi rate has been signalled in advance by the use of 'strong vigilance' in the preceding month (see Table 4). The only exception was the rate hike of March 2006, which was the second in the current series of policy tightening and preceded by a mere 'vigilance' in February 2006. Occasionally, the use of 'strong vigilance' has not been followed by a higher refi rate in the next month. In particular, the rate hike of December 2005 was preceded by 'strong vigilance' in both the October and November 2005 Introductory Statement. In addition, the use of 'strong vigilance' in August 2007 was not followed by a policy move in September 2007, but the latter was undoubtedly due to the heightened uncertainty caused by the subprime mortgage crisis and its fallout.

To provide guidance about policy moves a few months in advance, the code words 'monitor closely' and 'monitor very closely' have been used. Although the phrase 'monitor closely' had been mentioned before in the Introductory Statement (e.g. from January until May 2005), the use of 'monitor very closely' has so far always been followed by 'strong vigilance' and a subsequent rate hike within a few months.

Early on in the tightening process, the ECB used all three code words before increasing the refi rate. After the third rate hike, however, the projected pace of policy tightening appeared to pick up with a jump from 'monitor closely' to 'strong vigilance' in July 2006, and adjusting the signal only one notch back to 'monitor very closely' after the rate hikes in August, October and December 2006. Then, the policy tightening slowed down, with the signal stuck on 'monitor very closely' for two consecutive months in December 2006 and again in March 2007. After the refi rate was increased to 4% in June 2007, additional policy tightening appeared further away as the signal reverted to 'monitor closely' for two months. But in August 2007, a rate hike appeared imminent as the signal jumped to 'strong vigilance'. Although the anticipated increase in the refi rate did not occur in September 2007 due to the subprime crisis, the repeated use of 'monitor very closely' suggests a further policy tightening remains likely.

b In September 2005 'particular vigilance' was also mentioned.

c In February 2006 only 'vigilance' was mentioned.

4

Governance

The tasks of Executive Board members

The ECB is a large and complex organization with more than 1300 staff. It is structured in 15 Directorates: Administration; Research; Economics; Statistics; Human Resources, Budget and Organization; Information Systems; Payment Systems and Market Infrastructure; Market Operations; Legal Services; Banknotes; Financial Stability and Supervision; Internal Audit; Communications; General Secretariat and Language Services; International and European Relations. There are also two special services offices: the ECB Permanent Representation in Washington DC and the office of the Executive Board Counsel.

According to the E(S)CB Statutes, Article 11.6 'The Executive Board shall be responsible for the current business of the ECB.' The six Executive Board members manage the bank through a number of committees: each one of them is composed of one Executive Board member, who acts as Chairman, and a number of senior managers, the heads of the relevant Directorates. Thus each Executive Board member is assigned a range of specific responsibilities, corresponding to the committee(s) she or he chairs. The specific allocation of such responsibilities among the six members is not publicly known.

In addition to managing the current business of the ECB, the Executive Board has other responsibilities stipulated by Article 12 of the E(S)CB Statutes. Most significantly, it shall 'implement monetary policy in accordance with the guidelines and decisions laid down by the Governing Council' and 'have responsibility for the preparation of meetings of the Governing Council'. The latter is very important because the Governing Council is responsible for making monetary policy decisions, which is by no means a trivial task for such a large, diverse and evolving economy as the euro area. In addition, the sheer size of the

Governing Council, which consists of 21 members from January 2008, makes a thorough preparation critical for an effective, high-quality policy discussion. However, the current organizational set-up is bound to distract the Executive Board from this vital task due to its extensive management responsibilities.

Consider, for instance, the Board member who chairs the committee that is responsible for the new ECB premises. The committee's tasks concerning the construction project, which moved into a planning phase in 2006, are described in the bank's 2006 Annual Report as follows:

Preparing and implementing the necessary tender procedures to award service contracts to the planners, experts, architects, engineers and construction companies that will be involved in the planning and construction of the premises; submitting the plans to the authorities of the City of Frankfurt in order to obtain the necessary building permits and review all plans for compliance with the applicable building regulations, e.g. the building code, fire protection and health and safety standards; preparing an updated cost calculation in order to confirm the overall cost framework: €500 million for building costs and €850 million total investment costs, based on 2005 prices; developing detailed plans for the design based on the building specifications and on continuous value engineering. (2006 Annual Report, p. 190)

What is likely to be the major preoccupation of the Board member who chairs this committee – monetary policy or managing the complex set of tenders and permits for this construction project, with the ever present risk of the EU Court of Auditors finding a formal mistake, which in the end falls under the Board member's responsibility?

Sharing the information on the activities of the various management committees, discussing the administrative troubles that inevitably arise in a large organization, appointing directors is likely to take up most of the time in the weekly meetings of the Executive Board. This is hardly the best way to focus attention on monetary policy decisions and on the preparation of the Council's meetings. It is also likely to leave little time for writing thoughtful speeches to communicate the bank's views to the public.

Besides the distraction of attention from the Executive Board's key task – the preparation and implementation of monetary policy decisions, which crucially includes communication to the public – the multifunctional responsibilities of the Executive Board are a challenge for the selection of suitable members. The current organizational set-up makes extensive management experience important in addition to expertise in monetary policy. So, there is the risk that Executive Board members are selected for their management skills rather than their monetary policy expertise. But this would be a violation of Article 109a(2) of the Treaty establishing the European Community, as amended by the 1992 'Maastricht' Treaty on European Union, which requires that: 'The President, the Vice-President and the

other members of the Executive Board shall be appointed from among persons of recognized standing and professional experience in monetary or banking matters' and –correctly so – does not mention managerial skills.

It is no exaggeration to emphasize that setting monetary policy and explaining it to the public are difficult tasks and constitute a full-time job. Managerial duties are distractions that reduce the effectiveness of Board members in the task for which they have been selected. The internal organization of the bank should be reconsidered, separating the role of Executive Board members from directly managing the bank. Managerial tasks should be delegated to the bank's managers, possibly supervised by a general manager as is the case in some national central banks.

This is not incompatible with the E(S)CB Statutes. The provision of Article 11.6 ('The Executive Board shall be responsible for the current business of the ECB.') could be met by assigning the responsibility for overseeing current business to the president and the vice-president. This would free up the time of the other four Board members who should be fully dedicated to preparing and communicating monetary policy decisions. It would also induce more delegation, since the president and the vice-president will wish not to be involved in any single managerial decision. The Riksbank – which lately had suffered similar organizational problems – has recently moved in this direction, concentrating managerial responsibilities on just two Board members.

At the Bank of England, the Executive Director for Central Services – who is not a member of the MPC – has executive responsibility for accommodation, personnel, security, etc. Current business is discussed weekly by the bank's Executive Team. This team, however, (1) is not strictly a decision-making body (decisions are formally down to the Governor), and (2) only includes five of the nine MPC members. The other four MPC members have no other obligation but thinking about monetary policy decisions.³⁵

In about one-half of the twenty central banks whose organization is studied in Tuladhara (2005) management responsibilities are assigned to committees or individuals which are separate from those responsible for making monetary policy decisions (see Table 5). In 78% of the central banks whose laws are studied in Lybek and Morris (2004), management responsibilities are solely delegated to the governor: in such cases the governor is typically assisted by one or more deputies, a general manager, or a board comprising directors of various departments of the bank. Where a management board is established by law, it usually comprises the governor, deputy governor(s), and in some cases directors of the most important departments of the bank. Lybek and Morris (2004) further observe that it is difficult to select board members with the right characteristics when a board performs multiple functions.

³⁵ These are the 'external' members of the MPC, whose position at the Bank is not full-time.

Since the start of EMU the appointment of ECB board members by the European Council has been clouded by political manoeuvring and has been all but transparent. Making such appointments more complex by assigning Board members multiple functions only widens the scope for political meddling. Board members – with the possible exception of the president and vice-president – should have a single responsibility, that of preparing and communicating monetary policy. This would make it harder for politicians not to appoint the best monetary experts.

The organization of Governing Council meetings

The ECB Governing Council makes monetary policy decisions once a month. FOMC meetings are less frequent, normally every six weeks, unless something urgent comes up. Council meetings – perhaps because they are so frequent – are relatively short: preceded by an informal dinner the night before, they last one morning. Contrast this schedule with that of the monthly meetings of the Monetary Policy Committee (MPC) at the Bank of England, which are organized as follows:

- on the Friday of the week preceding the formal meeting, MPC members meet with the bank's staff: the heads of the bank's regional offices, the heads of various departments and a few staff members more directly involved with the forecasts. The MPC members are made aware of all the latest data on the economy and hear explanations of recent trends and analyses of relevant issues. The Committee is also told about business conditions around the UK from the bank's Regional Agents, whose role is to talk directly to business to gain intelligence and insight into current and future economic developments and prospects. This meeting known as the pre-MPC is very open and offers MPC members the opportunity to ask clarifying questions and, if it is felt useful, to ask the staff to further investigate specific issues that might arise during the discussion;
- Thursday morning. This leaves members a night to ponder their decision. This delay and the possibility it offers each MPC member to reflect 'in solitude', helps to stress the point that the monetary policy vote is her or his individual decision. On the first day, the meeting starts with an update on the most recent economic data. The additional information requested from the staff on the previous Friday is also discussed. A series of issues is then identified for discussion. On the following day MPC members individually explain their views on what policy should be, and a vote is taken.

In recent years roughly half of the FOMC meetings have taken place over a two-day period, starting around 2:00 pm one afternoon, and finishing the next day at 1:00 pm. Two-day monthly meetings are also the practice in Brazil.

A likely objection is that national central bank governors have many things to do at home and can hardly spend two days in Frankfurt for each Council meeting. This is a bad argument. First, NCB governors currently travel to Frankfurt twice a month, so they already spend two days a month at the ECB. The second monthly meeting is typically dedicated to technical issues: collection and dissemination of statistics, decisions in the area of the implementation of monetary policy (tenders, refinancing operations, etc.), decisions on payments systems and market infrastructure, advice on EU legislation, decisions concerning the issue of banknotes and coins, opinions of the governance of national central banks, etc. While it is a good idea to keep these issues separate from monetary policy decisions, most of them could be dealt with during a conference call or delegated to NCB delegates, thus avoiding a second trip of the governors.

But, most importantly, the objection that the governors 'have many things to do at home' once again confuses the main task of the member of a monetary policy committee with other 'distractions', and conveys the impression that Council members do not focus collectively on their monetary policy decisions as carefully as they should. If anything, compared for instance with the MPC at the Bank of England, the task of ECB Council members is more complicated since the euro area economy is much wider and far less homogeneous: it takes longer to digest and aggregate the information that comes from the 13 member countries. If the home tasks of NCB governors absorb them too much, this is an indication that the organizational set-up of their banks is ill-designed: tasks – including importantly banking and financial supervision for those NCBs that have such responsibilities – should be delegated inside the bank.

Reconsidering the frequency of the meetings and moving to the FOMC six-week frequency could help extend the time the Council dedicates to monetary policy decisions.

Attendance at the meetings

4.3

The ECB statutes prescribe (Article 10, on the Governing Council) that:

The right to vote shall be exercised in person. By way of derogation from this rule, the Rules of Procedure referred to in Article 12.3 may lay down that members of the Governing Council may cast their vote by means of teleconferencing. These rules shall also provide that a member of the Governing Council who is prevented from attending meetings of the Governing Council for a prolonged period may appoint an alternate as a member of the Governing Council.

While the possibility to meet through a teleconference allows dealing with non-monetary policy decisions in a less time-consuming manner, it is hardly appropriate for monetary policy decisions, especially if these were to extend – as we have suggested – over more days. At the Bank of England, teleconferencing, although allowed, has never occurred over the ten-year life of the MPC. The occasions in which an MPC member did not attend the meeting are limited to a couple out of more than 120 meetings.

We do not know how often ECB Council members have used the option of being represented by an alternate. The bank not only abstains from publishing minutes of the meeting: it also does not reveal which Council members attended the meeting and who was instead represented by an alternate. We find the possibility of delegating the vote to an alternate troublesome.

 Table 5
 Allocation of policy, supervisory and managerial functions (end-2003)

Country	Supervisory function(*)	Monetary Policy function	Management	Other Boards
Australia		Reserve Bank Board /1,2	Governor	Payment System Board
Brazil		Board of Directors (COPOM) /2	Board of Directors /2	
Canada	Board of Directors /1,2 Executive Committee /1,2	Governor	Governing Council	
Chile		Board /1,2	Board /1,2	
Columbia		Board of Directors /1	Governing Board /1,2	
Czech Republic		Bank Board 2/	Bank Board /2	
ECB		Governing Council /1,2	Executive Board /2	
Hungary	Supervisory Board	Monetary Council /1,2	Board of Directors /2	
Iceland	Supervisory Board	Board of Governors /2	Board of Governors /2	
Israel		Governor		Advisory Council /1
Korea, Rep of		Monetary Policy Committee /1,2	Executive Officers	
Mexico		Board of Governors /2	Board of Governors /2	
New Zealand	Board of Directors /1	Governor	Governor	
Norway	Supervisory Council	Executive Board /1,2	Governor	
Peru		Board of Directors /1,2	General Manager	
Philippines		Monetary Board /2	Monetary Board /2	Advisory Committee
Poland		Monetary Policy Council /1,2	Management Board /1,2	,
South Africa	Monetary Policy Committee /2	Board of Directors /1,2		
Sweden	General Council	Executive Board /2	Executive Board /2	
Thailand	Court of Directors /1,2	Monetary Policy Committee /1,2	Governor	
United Kingdom	NedCo (a sub-committee of the Court of Directors) /1	Monetary Policy Committee /1,2	Governor and Executive Team	

Source: Tuladhar (2005, p. 19).

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