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The Transparency and Credibility of the European Central Bank*

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Abstract

The European Central Bank (ECB) ranks highly on our proposed central bank disclosure indicator, measuring activities of central banks to enhance the public's understanding of their policies. Nevertheless, our survey evidence suggests that private-sector economists do not consider the ECB transparent. We argue that this may be caused by the quality of the information provided by the ECB. In addition, the way intermediaries report on the ECB may influence the public's perceptions. The ECB also does not rank highly in terms of credibility; still, most ECB policy decisions were in line with financial markets' expectations.

Introduction

For a long time, central banks have been associated with secrecy. Recently, however, various central banks, including the Bank of England and the Reserve Bank of New Zealand, have embraced openness. Indeed, a comprehensive survey of 94 heads of central banks by Fry *et al.* (2000) reveals that 74 per cent of their respondents consider transparency a vital or very important component of their monetary policy framework.[1]

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[1] Although there seems to be an unambiguous trend towards greater disclosure in monetary policy, the theoretical literature on the desirability of central bank disclosure and transparency is less equivocal. For an overview of the theoretical findings, see Geraats (2000), Eijffinger and Geraats (2002) and Cukierman (2001).

Two definitions of transparency can be distinguished in the policy-oriented literature on central bank transparency. In some instances, transparency refers to the activities of the central bank in providing information. Thus Lastra (2001) defines transparency as the degree to which information on policy actions is available. Alternatively, transparency may refer to the public's understanding of the decisions taken by the monetary authorities and the reasoning behind them (see, e.g., Winkler, 2000).[2] In this article we use the latter definition of transparency. We will use the term disclosure whenever we refer to the activities of the central bank to enhance the understanding by the public of its policies (see also Siklos, 2002).[3]

While disclosure and transparency are related, they are not necessarily congruent. Monetary authorities may be very active in conveying information, using the various means available to disclose information, while the public may still feel that they do not understand the central bank's policies.

Disclosure and transparency are related to credibility.[4] Cukierman and Meltzer (1986, p. 1108) define credibility as 'the absolute value of the difference between the policymaker's plan and the public's beliefs about those plans'. Credibility of policy-makers implies that their policy announcements will be believed. According to Issing (2001), transparency is often considered as enhancing credibility. By providing the private sector with a clear description of the considerations guiding monetary policy decisions, disclosure of the policy-making process makes the monetary policy transmission mechanism generally more effective, in part by ensuring that market expectations can be formed more efficiently. Most observers would probably also agree that it is important that monetary policy is – to a certain extent – predictable in the short and medium term, as this contributes to market stability. Predictability is enhanced by systematic decision-making by the policy-maker and by public understanding of the rules governing this process.

[2] An interesting question is what 'the public' means. As will be argued later, when it comes to the effectiveness of monetary policy decisions, the understanding of central bank policy decisions by financial market participants is crucial. However, from an accountability perspective, it is important that the public at large ('the man in the street') also understands the essence of the policy decisions by the central bank.
[3] Note, however, that many authors use the term 'transparency' when they are referring to what we call disclosure.
[4] Disclosure is also related to democratic accountability. According to Lastra (2001, p. 70) the concept of accountability can be defined as 'an obligation owed by one person (the accountable) to another (the accountee) according to which the former must give account of, explain and justify his actions or decisions against criteria of some kind, and take responsibility for any fault or damage'. Whatever other arrangements concerning democratic accountability of central banks may exist, their scope is limited without disclosure, because information concerning the behaviour of central banks is crucial for the evaluation of its performance (see Amtenbrink, 1999, 2002; Buiter, 1999; Issing, 1999; and De Haan and Eijffinger, 2000 for further discussion of the issue of accountability).

The present article focuses on the transparency and credibility of the European Central Bank (ECB). We present the ranking of the ECB on our proposed disclosure index, as well as the results of a survey among private-sector economists in which we raised various issues relating to the transparency and credibility of central banks. The ECB ranks highly on our proposed central bank disclosure indicator. However, according to our survey, the ECB does not rank highly in terms of credibility and transparency. We argue that this may be caused by the quality of the information provided by the ECB. Also the way intermediaries report on the ECB may influence the public's perceptions. Despite the low level of perceived transparency and credibility, our analysis of forward market rates on a daily basis suggests that most ECB policy decisions were in line with financial markets' expectations.

The remainder of this article is organized as follows. Section I presents our disclosure indicator for six central banks. Section II reports our survey evidence on transparency and credibility, while Section III summarizes our evidence on financial market expectations. Section IV contains a discussion of our findings and Section V concludes.

I. A Disclosure Indicator for Central Banks

Table 1 shows our indicator for the information being provided and activities undertaken by central banks to distribute this information. The various items that we take into account are discussed in more detail below. The general approach is to raise a number of questions, all of which are related to disclosure as defined in the previous section. The indicator is simply the number of positive answers on these questions. A higher total score means more disclosure. Note that different scores may be given to positive answers on different questions, reflecting the importance we assign to them. Thus, while sometimes we assign a value of 2, in other instances a positive answer implies a score of 1. We explain in some detail the scores on our disclosure index for the ECB and the US Federal Reserve System.

The first group of criteria relates to the objectives of monetary policy. The first criterion we consider is what the objective of the central bank is. If the law and/or central bank documents clearly stipulate the objectives of monetary policy, disclosure is enhanced and a score of 1 is assigned. Laws often contain more than one objective in this respect. The second criterion is, therefore, whether the law or some central bank document identifies clear priorities with regard to different objectives. If this is the case, a score of 1 is assigned. Disclosure is further enhanced by a clear definition of the objective of the central bank. This concerns, in particular, the way in which price stability (or any other objective) is defined, the relevant time horizon, and the quanti-

Table 1: An Indicator of Central Bank Disclosure

	ECB	*Federal Reserve System*	*Reserve Bank of New Zealand*	*Bank of Canada*	*Bank of England*	*Deutsche Bundesbank*[a]
Objectives	4	1	5	5	5	3
1 Clear objectives	1	1	1	1	1	1
2 Clear priorities	1	0	1	1	1	1
3 Clear definition	1	0	1	1	1	1
4 Clear time horizon	0	0	1	1	1	0
5 Quantification	1	0	1	1	1	0
Strategy	5	3	6	6	5	3
6 Announcement of strategy	2	0	2	2	2	2
7 Decision immediately announced and always explained	2	2	2	2	1	1
8 Inflation forecast	1	1	2	2	2	0
Communication strategy	6	7	5	5	7	4
9 Parliamentary hearings	1	1	1	1	1	0
10 Frequency of reports	2	2	1	1	1	2
11 Meeting schedule	1	1	1	1	1	1
12 Press conferences/ press releases	2	1	2	2	2	1
13 Publication of minutes	0	1	n/a[b]	0	1	0
14 Publication of individual votes	0	1	n/a	0	1	0
Total (maximal score 19)	15	11	16/18	16	17	10
Subtotal (1–12) (max. score 17)	15	9	16	16	15	10
Bini-Smaghi and Gros index (max. score 30)	19 (19)	16 (14)	15 (15)	–	24 (20)	13 (13)
Siklos index (max. score 1.00)	0.52	0.87	0.83	0.83	0.91	0.70
Eijffinger and Geraats index (max. 15)	10	10	13.5	10.5	12.5	–

Source: Authors' own data.

Notes: n/a: not applicable. [a] The scores are based on the legal and practical situation before 31 December 1997. [b] The governor decides, so there are no minutes and voting records. As decisions are announced immediately, one may argue that the scores on criteria 13 and 14 should be 1. This is why there are two total scores for the RBNZ.

fication of the objective. Criteria 3–5 take this into account. When there is a clear definition and time horizon and when a quantification of the objective(s) is given (either in some legal document or some official document of the bank), a score of 1 is assigned for each of these elements.[5]

The ECB receives quite a high score (4 out of a possible 5) on this first group of criteria. The statute of the ECB clearly states that price stability is the primary objective for the ECB (see Art. 105(1) EC and the Protocol on the Statute of the European System of Central Banks, Art. 2). The ECB itself has provided a clear definition and quantification of this objective (Issing *et al.,* 2001). The only question that cannot be answered positively relates to the time horizon, as the ECB has defined price stability as 'a year-on-year increase of the Harmonized Index of Consumer Prices (HICP) for the euro area, which does not exceed 2 per cent in the medium term' (ECB Press Release, 13 October 1998), without making clear what the medium term is. The score for the Federal Reserve System for this first group of criteria on disclosure is only 1. The Federal Reserve has multiple objectives of monetary policy without prioritization.[6] Furthermore, the Federal Reserve has no clear quantification of or time horizon for the objectives of monetary policy (see also Eijffinger and Geraats, 2002).

The second group of criteria relates to the strategy of the central bank to reach the ultimate objective(s). A clear understanding by the market participants of the underlying framework on which central bank decisions are based, will lead to a better understanding of the decisions taken. Market participants should know what the central bank has in mind when it sets interest rates and be able to distinguish clearly between the instruments of monetary policy and the operational target that is affected by the central bank's action, but which is ultimately determined by market forces. Due to the vital role of this criterion for the overall transparency of a central bank, a score of 2 is assigned. Otherwise the score was 0. If the decision of the central bank on interest rates is immediately announced, and if there is, as a rule, a supporting statement explaining the decision on the basis of the central bank's strategy, the score on criterion 7 is 2. If such a supporting statement is issued only irregularly, the score is 1. A forecast of inflation and growth and an assessment of inflationary trends will enhance transparency. Following Bini-Smaghi and Gros (2001), a value of 2 is given for the eighth criterion for clear quantified forecasts of the decision-making body of the central bank, a value 1 for 'projections', which are not really underwritten by the central bank's decision-making body, and a value of 0 in the case of absence of any forecasts.

[5] We owe criterion 4 to David Mayes.
[6] See Federal Reserve Act, 12 USC 225a.

The score for the ECB on this second group of criteria is 5 out of 6. The strategy has been clearly announced, while policy decisions are generally explained by the President of the ECB at a press conference. Only on criterion 8 does the ECB not get the maximum score, as the 'projections' are not forecasts by the Governing Council of the ECB (see Issing, 2001). The score for the Federal Reserve is 3. To the best of our knowledge, no explicit strategy is announced (see also Bini-Smaghi and Gros, 2001; and Eijffinger and Geraats, 2002, who also have this criterion in their index). All policy decisions are explained at the time of the announcement (Eijffinger and Geraats, 2002), while a macroeconomic analysis and short-term forecasts for inflation and output are published in the semi-annual *Monetary Policy Report* to the Congress. Both the Reserve Bank of New Zealand and the Bank of Canada receive the highest possible score on the criteria in this group.

The final group of criteria refers to the procedures followed by the central bank to communicate effectively with the public. There are various possibilities, ranging from testimonies in Parliament, reports, press conferences, minutes and other communication devices. Parliamentary hearings in which the governor of the bank is answerable to elected parliamentarians, are an important tool of communication. Thus, for criterion 9 a score of 1 is assigned if the governor of the central bank appears before the Parliament at least three times a year, and 0 otherwise. The publication of reports, including details on the past performance and future plans for monetary policy, can be another important communication tool. In order to be useful, these reports have to appear regularly or be updated regularly. Thus, when the central bank publishes a report on a monthly basis, a value of 2 is assigned for criterion 10, one in case of quarterly reports, and 0 otherwise. If the schedule of meetings of the policy-making body is publicly available in time for it to be clear when policy decisions will be taken (IMF, 2000), we assign a value of 1 for the eleventh criterion. Criterion 12 deals with press conferences and the publication of press releases, which can function as substitute for press conferences, and in which the motivation for a certain policy decision is presented. As journalists can ask all kinds of questions about policy decisions during a press conference, we consider it an important means of disclosure. A value of 2 was therefore assigned if press conferences are held at regular intervals (monthly) *and* regular press releases are issued. A value of 1 is assigned if only one of the two is featured, and a value of 0 if neither exists.

According to Buiter (1999), disclosure is also enhanced if the decision-making body of the bank is required to publish minutes of its meetings, in an abridged or full version, and when the voting of individual members is released. A value of 1 is assigned to criterion 13 when the minutes of the policy-making bodies are released within a reasonable time, and 0 otherwise. Simi-

larly, a value of 1 is given for criterion 14 if votes of members of the decision-making body are released (with a certain lag) and 0 otherwise. It should be noted in this context that the importance of minutes in enhancing transparency is not undisputed (see, e.g., Blinder *et al.,* 2001). For one thing, minutes may not reveal much as they can be very brief, and hardly make clear what the discussion was really about. Moreover, they may also undermine free discussions on the monetary policy board of the central bank.[7] Furthermore, in central banks with a clear collective responsibility (see Issing, 1999), the usefulness of making voting behaviour public should in our view not be overestimated. In fact, it could undermine the credibility of a decision taken by only a slight majority and may put pressure on presidents of national central banks. Therefore, reflecting these different opinions, we include the total scores with and without the last two criteria.

The ECB receives a score of 6 out of 8 on this final set of elements, making up our disclosure index. As no minutes or voting record are published, the scores for the final elements are 0, but for all other criteria the ECB receives the maximum score. The Federal Reserve gets a score of 7. The only element for which the maximum score was not given relates to the frequency of press releases (see also Bini-Smaghi and Gros, 2001).

It follows from Table 1 that the ECB scores comparatively highly on disclosure. In fact, the ECB scores better than the Deutsche Bundesbank and also has a higher level of disclosure than the Federal Reserve System.[8] If we discard the last two criteria, the contestability of which has been observed above, the scores of the ECB and the Bank of England are the same. Also, if all questions had been given a maximum score of 1, the ECB gets a relatively high score for disclosure, which highlights that our results are not particularly sensitive to our weighting scheme.

One obvious objection that is often raised against this kind of indicator is that they are rather arbitrary and – to a certain extent – subjective. In order to meet this criticism and so to review whether our conclusion on the disclosure of the ECB is sensitive with respect to the measure chosen, we also include in Table 1 the scores for the disclosure indicators of Bini-Smaghi and Gros (2001), Siklos (2002) and of Eijffinger and Geraats (2002).[9] The indicator of Siklos

[7] As to the possibility of excluding market sensitive information from the initial publication of minutes, see Amtenbrink (2002) with reference to the Bank of England.

[8] The low score for the Fed arises mainly from its objectives and strategy being poorly defined. However, as will be argued in Section IV, even if the objectives and strategy are disclosed, the policy may still be unclear in practice. The Fed scores well in promptly disclosing what it has done.

[9] All these indicators are set up in a similar way: central banks are given scores on the elements that make up the index. The indicators differ in the selection of the elements taken into account, the assessment of the various elements and the weights given to these elements in the aggregation process.

(2002) gives the ECB a very low score (0.52 of 1.00) in comparison to the other measures.[10] The latter outcome is remarkable as Siklos (2002) takes many of the same issues into account as the other authors who construct disclosure indicators. On closer inspection it turns out that the low score for the ECB on the Siklos indicator is the result of the relatively high weight of the items 'publication of minutes of central bank meetings' and 'publication of committee voting record' (on which the ECB scores 0) and a low weight on items like publication of reports, and regular speeches on which the ECB gets the highest score possible.[11]

II. Credibility and Transparency of the ECB: New Survey Evidence

We were able to carry out a survey on the credibility and transparency of central banks directed towards economists in OECD countries that participate in Ifo's *World Economic Survey* (formerly known as *Economic Survey International)*. Most of the questions on credibility that we asked correspond to those in Blinder's (2000) survey among central bankers.[12] By putting the same questions to private-sector economists, we are able to examine whether central bankers and private-sector economists have diverging views on the credibility of monetary policy-makers.

The Ifo Institute has been running the World Economic Survey (WES) since 1981 (for further details, see Brand *et al.,* 1997; Haupt and Waller, 2000). Its aim is to obtain the most up-to-date quarterly picture of the economic situation, as well as forecasts for the important industrialized, emerging and developing nations. Respondents are economists working in various institutions (banks, insurance companies, research institutes, large firms, etc.)

The explanatory power of the *WES* results has been tested in various empirical studies. The results can be summarized as follows (Brand *et al.,* 1997):

- The survey results represent valuable indicators for explaining global economic developments.
- The survey results are also suitable for forecasting economic developments, although the forecasting power of WES indicators is naturally inferior to their explanatory power.

[10] On the same scale, the ECB scores 0.63 on the Bini Smaghi-Gros index, 0.66 on the Eijffinger-Geraats index and 0.79 on our index.
[11] The Siklos index also includes the item 'special recognition of the role of financial system stability' (on which the ECB gets a score of 0), which has little to do with disclosure. Finally, it seems that Siklos has made a mistake in his coding for the element 'publication of a monetary policy strategy'. In his book Siklos (rightly) states that the ECB has published its strategy, but in the coding the ECB receives a 0 on this element.
[12] We thank Alan Blinder for providing us with his survey. For a full report of the Ifo survey, see Waller and De Haan (2004).

- The number of participants in the survey, which varies from country to country, does not seem to have any significant bearing on the quality of the survey results.

The survey was held for the first time in May 2000. More than 200 respondents filled in the questionnaire. This was a response rate of 45 per cent. One of the questions we raised is how central banks can earn credibility. From the point of view of the present article, it is interesting to examine whether private-sector economists share Issing's view that transparency may enhance credibility. To be precise, we asked:

'Can you rank (from 1 to 7, where 1 is highest) the following means which have been suggested to establish or create central bank credibility?

- The central bank should have a high level of independence
- The central bank should be open and transparent
- The central bank should have a history of doing what it says it will do
- The central bank should have a history of fighting inflation
- The central bank should be bound (whether by law or by custom) to follow a prescribed rule that constrains decision-making
- The central bank governor should suffer some personal loss (e.g. lower salary or loss of job) when inflation is too high
- Absence of high fiscal deficit and debt ratio creates central bank credibility.'

Table 2 shows the results. The second column shows the average score for each of the possible factors that may contribute to credibility, while the third column shows the standard deviation to indicate to what extent our respondents held diverging views on these issues. The answers are ordered on the basis of their rankings. Our respondents' answers are broadly in line with those of the central bankers in Blinder's survey. A history of honesty and central bank independence achieved the highest ranking in both surveys. Personal incentives for central bankers are not regarded as an adequate means of earning credibility.

Our survey results on the credibility and transparency of the ECB suggest that the ECB faces a problem. Our respondents do not rank the ECB highly in comparison to other central banks. Previous survey evidence on the transparency of the ECB came to similar conclusions.

Let us first focus on the credibility ranking of the ECB. We asked our respondents to rank seven central banks with respect to their credibility. Specifically:

'Can you rank (from 1 to 7, where 1 is highest) the following central banks in terms of their credibility?

Table 2: Survey of Private Sector Economists: Factors Important for Credibility, May 2000

Issue	*Average*	*Stand. Dev.*	*Difference in Mean Test*
Importance of independence for credibility	1.80	1.32	
Importance of history of honesty for credibility	2.93	1.43	*–8.52*
Importance of transparency for credibility	3.13	1.46	–1.40
Importance of history of fighting inflation for credibility	3.70	1.36	*–4.24*
Importance of being constrained by a rule for credibility	4.85	1.47	*–8.38*
Importance of small deficit and low debt ratio for credibility	5.26	1.49	*–2.87*
Importance of incentives (personal loss) for credibility	6.38	1.07	*–8.95*

Source: Authors' own data.
Notes: The final column gives the outcomes of the test that the average of issue with rank x is significantly different from that of the issue with rank x–1. Figures in italics mean that this hypothesis can be rejected at the 5 per cent significance level.

- Banca d'Italia
- Bank of England
- Bank of Japan
- Banque de France
- Deutsche Bundesbank
- European Central Bank
- US Federal Reserve'.

Table 3 presents our findings for the credibility marks of the various central banks. It follows that our respondents gave the Federal Reserve and the Deutsche Bundesbank the highest marks. The credibility of the Bank of England and the ECB is clearly better than that of the Bank of Japan and the Banca d'Italia.

We have also examined whether different groups of respondents have diverging views on the credibility of central banks. As far as differences between economists located in the euro area and the rest is concerned, the most remarkable result is that economists from EMU countries give the ECB a somewhat better score (3.56) (see Waller and De Haan, 2004, for further details).

Table 3: Survey of Rankings of Central Banks in Terms of their Credibility

Central Bank	*Average*	*Standard Deviation*
Federal Reserve	1.79	1.10
Deutsche Bundesbank	1.89	1.12
Bank of England	3.74	1.19
European Central Bank	3.86	1.39
Banque de France	4.86	1.14
Bank of Japan	5.48	1.29
Banca d'Italia	6.42	1.02

Source: Authors' own data.

Despite the comparatively high score for the ECB in terms of disclosure, there are indications that financial markets do not have a good understanding of the ECB's strategy and face considerable uncertainty over monetary policy. Indeed, according to an early survey by Goldman Sachs held in February 2000 in which a sample of financial market participants was asked to rate on a scale of 1–5 how well they understood the reasoning behind the monetary policy decisions of four central banks (a higher grade indicates a better understanding), the ECB did not perform well (average score of just 2.2) in comparison to the US Federal Reserve (a top rating of 4.3; see Gros *et al.*, 2000, for further details).

We also asked our respondents to rank seven central banks according to their transparency. The results are presented in Table 4. Two conclusions can be drawn. First, the results on (perceived) transparency by our respondents are broadly in line with the results presented in the earlier survey on per-

Table 4: Survey of Rankings of Central Banks in Terms of their Transparency

Central Bank	*Average*	*Standard Deviation*
Federal Reserve	1.66	1.21
Deutsche Bundesbank	2.63	1.24
European Central Bank	3.17	1.50
Bank of England	3.33	1.38
Banque de France	4.86	1.04
Bank of Japan	5.93	1.24
Banca d'Italia	6.17	0.94

Source: Authors' own data.

ceived transparency. The Federal Reserve and the Deutsche Bundesbank are clearly perceived as more transparent than the ECB. Second, the Bank of England – which, according to our disclosure indicator, could be expected to be very transparent – has a very similar score to the ECB in our survey.

III. Predictability of ECB Policy Decisions

Issing (2001, p. 15) argues that one possible way to approach the transparency of monetary policy decisions is to analyse the predictability of the decisions taken by the ECB. 'If the stability-oriented strategy were indeed too complex and ultimately not transparent, as claimed by some of our critics, then we should expect monetary policy decisions to be very imperfectly forecasted.' However, according to Gaspar *et al.* (2001), markets are able to predict the ECB's interest-rate decisions quite accurately over the period of their analysis (1 January 1999–23 March 2001). These authors focus on the success of the market in predicting the ECB's interest rate movements on the day before the meeting of the Governing Council, distinguishing between the times where the ECB moved interest rates and where it left rates unchanged. Of the ECB interest rate changes taken into account, only one – namely the April 1999 decision – caught the markets by surprise. Likewise, in only one case the markets expected a move, while the ECB did not change its interest rates. In this section, we will present an analysis of forward rates to examine whether financial markets anticipated the interest rate steps of the ECB.

Financial market prices may contain information about inflation and interest rate expectations. Therefore, they are often used for measuring market expectations. Söderlind and Svensson (1997) provide a survey of methods to extract information about market expectations from asset prices for monetary policy purposes. In *forward rate agreements* (FRAs), the interest rate for a transaction in the future is explicitly fixed today. If the market participants expect an interest move by the central bank in the near or intermediate future, these assessments must have an effect on FRAs. Daily forward rates thus might yield information on the market's perception of the ECB strategy and could hence be used as a measure of the predictability of the ECB's monetary decisions. If the market anticipated an interest rate increase before the actual move, an increase in forward rates should be observable in the data. In perfect markets, spot prices contain the same information as the corresponding future quotations. If this were not the case, better informed market participants would exploit arbitrage possibilities. Therefore, it can be assumed that spot prices condense expectations from the present to the maturity of the financial contract.

For our purpose – to analyse *ex post* whether market participants had anticipated the ECB moves in the past – we calculated the differences between the actual money market rate and the respective three-month Euribor future. This difference yields information about the market participants' interest rate expectations. We compared these expectations with the ECB's actual interest rate moves. Figure 1 shows that the markets by and large anticipated the ECB's interest rate moves. Sometimes they expected the move earlier, while sometimes they over- or underestimated the size of the step.

A somewhat controversial decision was the ECB's first interest rate decrease in April 1999. In the view of the markets, the decision came too late – they had already in the mean time expected constant rates as the fear of deflation already seemed to have disappeared. The decision of November 1999 was expected earlier. About one month prior to the ECB's rise of 50 basis points, the markets had already priced-in a tightening of monetary policy. The expectations clearly overshot the actual scope by about 25 basis points, signalling that market participants had been expecting an even bigger step of 75 basis points. The move did not come unexpectedly as it was announced by the ECB well in advance.

However, the ECB decision of February 2000 caught financial markets by surprise. This was the beginning of a series of 'trip steps'. The ECB decisions of March, April, June and August were generally expected. Likewise, the step of October 2000 had been expected by the markets but, compared to the moves before, it had been anticipated very late. During the period from the end of

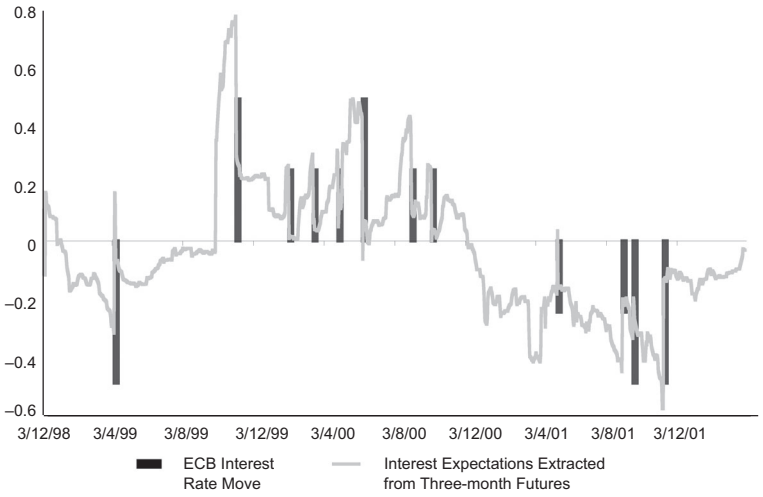

Figure 1: Interest Rate Expectations Extracted from Three-month Futures
Source: Authors' own data.

August 2000 and the last days of September, the markets did not expect an interest rate move. Only a few days prior to the ECB meeting, forward rates disclosed an increase in interest rate expectations. The May 2001 decision was a surprise to many financial market participants who expected a small step downwards by the beginning of January. However, the ECB did not lower its key rate until 10 May. Meanwhile, the markets had adjusted to the belief that an interest-rate decrease would not fit into the ECB's monetary strategy at that time, with M3 remaining persistently above its reference value and HICP inflation above 2 per cent. The ECB justified the move by the latest monetary developments and the temporary upward distortion of the monetary aggregate due to non-euro area residents' purchases of negotiable paper included in M3.

The decision of August 2001 came as no surprise at all. The decision to reduce rates after the terrorist attack of 11 September – which was decided upon by teleconferencing and which was the first decision taken between two regular Council meetings – was widely accepted, even though it had not been fully expected. The step of November 2001 did not come as a surprise, although the markets had only anticipated a small step. What becomes clear from this analysis is that the markets by and large predicted the ECB moves quite accurately.

IV. What Explains the Lack of Transparency?

Despite the comparatively high score for the ECB for our disclosure index, and the fact that ECB policies were generally broadly in line with financial market expectations, our survey suggests that professional economists often feel that they do not have a good understanding of the ECB's policies. This has led Issing (2000) to conclude that the ECB faces a 'communication gap': 'On the one hand, few observers contest the success and credibility of the ECB in delivering on its primary objective and on the appropriateness of most of its policy actions in this regard … On the other hand, however, the overall perception of the ECB by the public, academics, financial analysts, market participants, and not least, journalists continues to remain – at best – rather mixed'. What explains this apparent paradox?

Poor Quality of Information?

An important issue may be the quality of the information that is disclosed. It is the content, clarity, and accessibility of the information and the data that are being disclosed that transforms disclosure into a genuine understanding of monetary policy-making by the public (IMF, 2000). As it is based on ac-

tivities rather than the contents of what is being released, our disclosure index cannot take this issue systematically into account. No matter how often the strategy is explained, if the message is not very clear, it will probably not be understood. Indeed, the ECB's monetary policy strategy, being an unorthodox mix of elements of monetary and inflation targeting traditions, has often been criticized from this perspective (see, e.g., Begg *et al.,* 2000).

The monetary policy strategy of the ECB, which was announced on 13 October 1998, consists of three main elements: a quantitative definition of price stability, a prominent role for money in the assessment of risks to price stability (at the time called the 'first pillar'), and a broadly based assessment of the outlook for price developments (the 'second pillar'). Under the first pillar, the ECB uses a quantitative reference value for the annual growth rate of a broad monetary aggregate (M3) to assess whether monetary developments pose a risk to price stability.

After more than four years of policy operations, the ECB's hybrid monetary strategy remains controversial. The ECB has been criticized, for instance, for its definition of price stability, which has been portrayed as ambiguous and asymmetric, and less effective as an anchor for inflation expectations than a point inflation target (see, e.g., Svensson, 2002). The ECB's definition of inflation (increase of HICP in the euro area should not exceed 2 per cent in the medium term) arguably is a less clear guide for expectations than a point target would be. However, in providing a definition of price stability, the ECB has specified its medium-term inflation objective in more precise terms than some other central banks, such as the US Federal Reserve or the Bank of Japan, which do not offer quantitative definitions of their targets. Still, the definition of price stability provides a less clear-cut demarcation of the ECB's inflation preferences than would an inflation target. First, it does not follow from the definition of price stability that the ECB is indifferent between all inflation rates in the 0–2 per cent range, or that it aims for the mid-point of that range. Second, the 'medium-term' horizon over which price stability is to be maintained is not specified. The ambiguity about the ECB's objective may hamper communication and understanding of its policies (Kieler, 2003).

Recently, the ECB has evaluated its monetary policy strategy. The press release in which the outcomes of this evaluation were reported, stated that the Governing Council confirmed the definition of price stability, which it announced in 1998. However, it added that 'the Governing Council agreed that in the pursuit of price stability it will aim to maintain inflation rates close to 2% over the medium term. This *clarification* underlines the ECB's commitment to provide a sufficient safety margin to guard against the risks of deflation. It also addresses the issue of the possible presence of a measurement

bias in the HICP and the implications of inflation differentials within the euro area' (emphasis added). Even though it was supposed to be a clarification of its objective, many observers have interpreted these statements as implying that the ECB has raised its inflation objective.

Most of the critique on the ECB is, however, directed at the two elements of its monetary strategy, which is often regarded as confusing.[13] The ECB's communication on the role of the first pillar has been especially criticized. Jaeger (2003) argues that initial ECB comments on its strategy suggested that the first pillar would not only be the prominent one but would provide the dominant input into policy decisions. When ECB President Duisenberg was asked about the relative importance of the two pillars, he noted that 'it is not a coincidence that I have used the words that money will play a prominent role. So if you call it the two pillars, one pillar is thicker than the other is, or stronger than the other, but how much I couldn't tell you'. However, with M3 growth persistently exceeding its reference value, increasing stress was put on the need to undertake a 'comprehensive monetary analysis' that goes beyond 'a comparison between M3 growth and the reference value'.

Also whether both elements of the monetary strategy refer to different time horizons is rather unclear. According to Jaeger (2003), some of the ECB's communications suggest that the second pillar covers the higher and business cycle frequencies of the inflation process (i.e. the short run), while the first pillar acts as a 'low-frequency crosscheck' on the second pillar analysis, low-frequency being defined by Jaeger (2003) as cycles taking more than eight years to complete. However, other ECB communication efforts suggest that the first pillar acts as a competitor for the second-pillar analysis of inflation trends at the business-cycle frequencies.

The ECB communication on the outcome of the evaluation of the two pillars in its monetary policy strategy seems yet another example of how not to communicate. During the press conference at which the outcomes of the evaluation were made public, the ECB officials proclaimed that it was all about clarification. According to the press release, the Governing Council confirmed that its monetary policy decisions will continue to be based on a comprehensive analysis of the risks to price stability. However, the Governing Council wanted to clarify its communication about the strategy. Therefore, the introductory statement of the ECB President after a Governing Council meeting will henceforth start with the *economic analysis* to identify short to medium-term risks to price stability. The *monetary analysis* will then follow to assess medium to long-term trends in inflation in view of the close relationship between money and prices over extended horizons. The Council

[13] Blinder *et al.* (2001) call the two-pillar set-up 'confusing', while Begg *et al*. (2002) call the first pillar the 'poison pillar'.

stressed that, as in the past, the monetary analysis will take into account developments in a wide range of monetary indicators including M3, its components and counterparts, notably credit, and various measures of excess liquidity. According to the Council, this 'new structure of the introductory statement will better illustrate that these two perspectives offer complementary analytical frameworks to support the Governing Council's overall assessment of risks to price stability'. This move has been widely interpreted as implying that the first pillar has become less important in the monetary strategy of the ECB, even though the Governing Council stressed the continuity in the ECB's strategy.

Are the Messengers the Problem?

A second potentially important factor, which has been largely ignored in the literature so far, is the role of intermediaries, such as TV and newspapers, in transmitting the information provided by the central bank. If information provided by the central bank is distorted by the intermediaries, the public's understanding of the policies of the central bank (transparency) may be affected. Amtenbrink and De Haan (2002) have examined newspaper reports published the day after the Governing Council of the ECB took a certain policy decision in 1999 and 2000 in the *Financial Times* (*FT*) and in the *Frankfurter Allgemeine Zeitung* (*FAZ*).

A number of interesting conclusions can be drawn from this analysis. First, relatively little attention is paid to money growth in the *FT*, in sharp contrast to the *FAZ*. Moreover, in instances where something is written about the first pillar of the ECB monetary policy strategy, the *FT* tends to be critical, while the FAZ clearly supports the idea that money should be given a prominent role in the strategy of the ECB.[14]

A second characteristic of *FT* reporting on ECB matters is a strong focus on (alleged) disagreements with governments, the OECD, IMF, or – even more strongly – within the ECB. Very often a certain decision is explained in terms of a victory for certain members of the Governing Council. An excel-

[14] An excellent example of this conclusion is when the ECB announced that the reference value for M3 growth remained at 4.5 per cent. At the press conference where this move was announced, the President of the ECB Duisenberg criticized the German government for supporting the German construction company Phillipp Holzmann, which at the time was on the brink of bankruptcy; the remark being made within the context of a weakening euro. *The Financial Times* carried three reports on the ECB on 3 December 1999, but did not pay much attention to the bank's decision on the reference value for M3, focusing instead on Duisenberg's remarks on German support for Holzmann. This is in sharp contrast to the way in which the *Frankfurter Allgemeine Zeitung* reported this particular press conference. The *FAZ* starts off by reporting the decision by the ECB Governing Council to keep the reference value at 4.5 per cent and the motives for this decision. It is only at the very end of the report – after a description of what Duisenberg said about the euro and foreign exchange intervention – and within the proper context, that the *FAZ* mentions Duisenberg's criticism.

lent example of this is the report on 5 November 1999 in which it is stated that the Bundesbank was opposed to an early rise in interest rates because Germany's recovery was less strong than in other euro area countries, thereby suggesting that national instead of euro area-wide considerations play a dominant role in the Governing Council decision-making process.

A strong focus on the euro is another characteristic of *FT* reports on policy decisions. The consequences for the euro–dollar exchange rate of decisions (not) to change interest rates are stressed. In fact, it is often suggested – or stated explicitly – that policy decisions were taken in view of the weak position of the euro.

So this evidence suggests that intermediaries may transmit the information provided by the central bank in different ways which, in turn, may affect the perception of the public at large.

Concluding Comments

Nowadays there seems to be a broad consensus on the importance of transparency and credibility of monetary policy-makers. If central banks disclose sufficient information, the public's general understanding of the decisions taken by the monetary authorities and the reasoning behind it may improve. This, in turn, may enhance the credibility of the policy-makers.

According to our proposed disclosure index, the ECB ranks more highly than the Federal Reserve and has the same ranking as the Bank of England if publication of minutes and voting behaviour is not included. Our evidence on financial market expectation as implied by the price of three-month Euribor futures indicates that most ECB policy decisions were in line with financial market expectations. Nevertheless, our survey evidence on transparency and credibility suggests that the ECB is not perceived as very transparent and credible. As the ECB is a new institution, it simply may take time before financial markets and the public at large feel that they understand its policies. The perception that the public has of the ECB may also be influenced by intermediaries on whom the ECB has, of course, no influence. Still, we feel that the ECB can improve on its transparency by changing its monetary policy strategy that seems somewhat difficult to understand.

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