CREDIBILITY AND TRANSPARENCY OF CENTRAL BANKS: NEW RESULTS BASED ON IFO'S *WORLD ECONOMIC SURVEY*

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Abstract

This paper reports the results of a survey among private sector economists about credibility and transparency of central banks. In line with the survey of Alan Blinder among central bankers, we asked participants in Ifo's World Economic Survey to answer questions on the importance and determinants of credibility. The results of both surveys are very comparable. Credibility is considered to be important to attain price stability at low cost, while the best ways to earn credibility are a history of honesty and a high level of central bank independence. According to our respondents, the Federal Reserve is the most credible, transparent and independent central bank out of seven large central banks. The ECB is not perceived as highly credible or tranparent, even though our respondents consider it to be very independent.

JEL classification: E58.

Keywords: transparency, credibility, independence, monetary policy, ECB.

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1. Introduction

Credibility of policymakers is considered to enhance the effectiveness of monetary policy in many theoretical models.[1] For instance, in a standard Barro-Gordon type of model a higher level of credibility implies that policymakers can reduce inflation at lower cost. Likewise, various theoretical models suggest that transparency of policymakers will be beneficial.[2] For instance, Geraats (2000) shows that opaqueness about economic forecasts damages the reputation of a strong central bank that is averse to inflation. Similarly, in the modified Barro-Gordon model of Faust and Svensson (2001) a high degree of transparency generally reduces the inflation bias. In the model it is assumed that the central bank controls inflation imperfectly and that the central bank has an employment target which varies over time according to an idiosyncratic component. By revealing the control error over inflation, the central bank renders its intentions for inflation observable, which results in lower inflation as it increases the sensitivity of a central bank's reputation to its actions, making it more costly for the central bank to pursue a high inflation policy (see also Jensen, 2001).

Also various policymakers think that credibility and transparency will enhance the effectiveness of monetary policy. For instance, Issing argues that "a high degree of transparency and accountability in monetary policy making reinforces the legitimacy of the central bank and consolidates the public support for its price stability mandate. In turn, this may add to the credibility, and thereby the effectiveness, of monetary policy, hence facilitating the central bank's effort to attain its statutory objective." (Issing, 2001, p. 13).

Blinder (2000) has mailed a questionnaire to the heads of 127 central banks soliciting their opinions on a number of issues related to central bank credibility. The response rate was 66 per cent. The respondents were asked to answer questions relating to the importance and determinants of central bank credibility. Blinder's

[1] 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".

[2] Basically two definitions of transparency can be distinguished in the policy-oriented literature on central bank transparency. Sometimes, transparency refers to the activities of the central bank in providing information. For instance, Lastra (2001) defines transparency as the degree to which information on policy actions is available. Others use the term disclosure for this (see, e.g., Siklos, 2002). Alternatively, transparency may refer to the public's understanding of the decisions taken by the monetary authorities and the reasoning behind it (see, for instance, Winkler, 2000). In the theoretical literature transparency is conceptualized in different ways, with authors focusing on preferences, models, knowledge about the shocks hitting the economy, the decisionmaking process, or policy decisions. Conclusions on the usefulness of transparency are sensitive to different notions of transparency (Posen, 2003).

respondents considered credibility important 'to keep inflation low'. The best way for a central bank to earn credibility is to 'have a history of doing what it says it will do'.

In this paper we report the results of a survey among private sector economists on credibility and transparency of central banks. By using the Ifo World Economic Survey, we were able to sollicit the views of private sector economists on these issues. As we could ask similar questions as Blinder did, we are able to examine whether private sector economists share the views of central bankers on these matters. Although there are some minor differences between both groups, it turns out that our respondents broadly share the views of Blinder's respondents. According to our respondents, the Federal Reserve is the most credible, transparent and independent central bank out of large seven central banks. The ECB is not perceived as highly credible or tranparent, even though our respondents consider it to be very independent.

The remainder of this paper is organized as follows. The next section offers a brief review of the empirical literature on transparency and credibility. Section 3 summarizes Blinder's survey results on credibility. Our results on credibility are reported in section 4, while section 5 contains our findings on transparency and central bank independence. Section 6 offers some concluding comments.

2. Review of the literature

Eventhough many authors agree on the importance of transparency for the efficiency of policymaking[3], this issue has received only scant attention in the empirical literature (see Posen, 2003 for a discussion). One reason that transparency could matter is that communication by the central bank about its long-term inflation goal may allow the bank to be more flexible in response to shocks in the short-run. The greater trust in the central bank resulting from communication implies that deviations from the target do not indicate a lack of commitment (King, 1997). If the central bank builds greater trust by communicating its long-term inflation objective, inflation persistence will decline since there is a strong belief that inflation will return to its target level. There is some

[3] Still, there is no consensus in the theoretical literature about the optimal level of disclosure (see e.g. Cukierman, 2001 and Eijffinger and Geraats, 2002). Also in the Faust and Svensson (2001) model, there is a regime (called the "extreme" transparency regime) in which both both the central bank's employment goal and its inflation intentions are observable. In this situation, the central bank's reputation is no longer affected by its actions and an inflationary bias reemerges resulting in a higher inflation. Some authors have pointed out that secrecy may also be beneficial under certain circumstance; see, for instance, Goodfriend (1986).

evidence in support of this view. Kuttner and Posen (1999) have examined the response of bond markets (proxying for inflation expectations) in Canada, New Zealand, and the UK before and after the central banks in these countries adopted inflation targeting. They find that interest rates decreased, which is consistent with the view that the adoption of inflation targeting increases flexibility. Kutner and Posen (2001) report similar results for a broader range of countries: inflation targeting reduces inflation persistence, in contrast to other elements of the monetary framework, like central bank independence. However, Ball and Sheridan (2003), who compared seven OECD countries that adopted inflation targeting in the early 1990s to thirteen that did not, report no supportive evidence. They find that after the early 90s, performance improved in both the targeting countries and the non-targeters. Where targeters improved by more than non-targetters this is explained by the fact that targeters performed worse than non-targeters before the early 90s, and there is regression to the mean. Once regression to the mean is taken up, there is no evidence that inflation targeting improves performance.

Another reason why transparency may matter is that communication removes noise from markets (Posen, 2003). Greater disclosure will lead to greater predictability of central bank actions. The results reported by Kuttner (2001) offer support for this point of view. Changes in the Federal Reserve's diclosure policy have reduced market volatilty and increased predictability.

Recently, Chortareas et al. (2002) have found for a sample of 87 countries that their index of disclosure (based on data taken from Fry et al. 2000), which is based upon the detail in central banks' published forecasts and which ranges from zero to four, is negatively related to average inflation, also if various control variables are taken up.

Also empirical evidence on the importance of credibility is scarce. Cecchetti and Krause (2002) also use the information provided by Fry et al. (2000) to examine the extent to which macroeconomic performance in their sample of 63 countries is related to credibility, transparency, independence and accountability of central banks.[4]

[4] The information reported by Fry et al. is based on a survey among of 94 central banks. The index of transparency used by Cechetti and Krause is based upon reponses to three questions relating to the degree and frequency at which each central bank provides reports on its policy decisions, assessments about the state of the economy, and public explanation of forecasts. The index is obtained as a simple average of these three criteria. Independence is determined on the basis of the responses of five questions (relating to the importance of price stability, goal independence, instrument independence, government's reliance on central bank financing and term in office of the governor). Accountability is

They find that credibility and, to a lesser extent, transparency is related to inflation. However, given the way that Cechetti and Krause have constructed their index of credibility, their results are perhaps better interpreted as suggesting that inflation is quite persistent.[5]

According to Issing (2001), transparency of monetary policy will enhance credibility. By providing the public with adequate information about its activities, the central bank can establish a mechanism for strengthening its credibility by matching its actions to its public statements (IMF, 2000). In Jensen's (2001) model, which is in terms of its informational structure similar to the Faust and Svensson (2001) set-up, increased transparency will increase the reputational costs of deviations from the inflation target and therefore increase the credibility of the central bank. However, the credibility-enhancing effect of transparency becomes redundant when central bank preferences are already public information. Chortareas et al. (2002) argue that a high degree of transparency is desirable for central banks with poor credibility but may be costly in terms of less flexibility for high-credibility banks.

Whether transparency enhances the credibility of policy makers is not investigated in the empirical studies by Chortareas et al. (2002) and Cecchetti and Krause (2002). The latter authors report that the correlation between their index of credibility and their index of transparency is 0.31, while credibility is virtually unrelated with their measures of accountability and independence.

Recently, some authors have presented the results of surveys among central bankers on transparency and credibility. The comprehensive survey by Fry et al. (2000), to which we already referred, reveals that 74 per cent of their respondents consider transparency a vital or very important component of their monetary policy framework. The next section summarizes the results of the survey of Blinder (2000).

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determined on the basis of the role of government in determining the objective(s) of monetary policy and on monitoring by parliamanent and the government. The index of credibility used by Cechetti and Krause (2002) is determined on the basis of the difference between an assumed inflation objective of 2 percent and expected inflation, proxied by actual inflation over the period 1985-1989.

[5] This index is defined as:

$$IC = 1 if E(\pi) \leq \pi^t$$

$$IC = 1 - \frac{1}{0.2 - \pi^t}(E(\pi) - \pi^t) if \pi^t < E(\pi) < 20\%$$

$$IC = 0 if E(\pi) \geq 20\%$$

3. Blinder's survey among central bankers on credibility of central banks

Blinder (2000) has mailed a questionnaire to the heads of 127 central banks soliciting their opinions on a number of issues related to central bank credibility. The response rate was 66 per cent. The respondents were asked to select a number on a five-point scale, where the points have different meanings depending on the question being asked. Table 1 summarizes Blinder's findings.

The first question (Q1) is: *How important is credibility to a central bank?* In this case the points on the five-point scale were:

1 = unimportant

2 = of minor importance

3 = moderately important

4 = quite important

5 = of the utmost importance.

The average score to the first question was a stunning 4.83, with a standard deviation of only 0.37. Blinder (2000) asked the same question to a smilar-sized sample of aceademic economists. The average score for the first question in this group was somewhat lower (4.23), while the standard deviation was higher (0.85).

The second question (Q2) is: *How closely related are the concepts of (a) a central bank's credibility and (b) a central bank's dedication to price stability?* In this case the five point scale has the following meaning:

1 = unrelated

2 = slightly related

3 = moderately related

4 = quite closely related

5 = virtually the same.

As follows from Table 1, the average score on this question in Blinder's survey among central bankers was 4.10. The academic economists gave a considerably lower score (3.31). The next seven questions focus on the issue of why credibility might be important to a central bank. Respondents were asked to express their views on a five-point scale, ranging from strongly disagree to strongly agree.

One argument – that received a score of 4.13 in the survey of Blinder (Q3) among central bankers – is that it will reduce disinflation costs. In the ranking it even got the second place, also in the survey among academic economists. Surprisingly,

given this high score, the academic literature has come up with discomforting outcomes as almost all studies report that CBI worsens the trade-off. For instance, Posen (1998) finds a positive correlation between CBI and the sacrifice ratio, i.e. the cumulative increase in unemployment that is due to the disinflation effort divided by the total decrease of inflation (see Eijffinger and De Haan, 1996 and Berger et al., 2001 for extensive surveys). Still, one might argue that what really matters for disinflation costs from a theoretical point of view is credibility, which may be influenced by actual (instead of legal) independence of a central bank. So far, the unavailability of indicators for credibility has made more direct testing impossible.

Table 1 also summarizes the outcomes for the other reasons given by Blinder as to why credibility may be important. It follows that the argument 'to keep inflation low' received the highest average score. Also the argument that a credible central banker may find it easier to change operating procedures - as, for instance, the Federal Reserve did under Volcker in 1982 - received a very high average.

Question 10 of Blinder's survey listed the reasons indicated in the previous seven questions on the importance of credibility and asked the respondents to rank them. The ranking is shown in parentheses in Table 1. Note that there are some inconsistencies in the average scores and the rankings.[6] For instance, the average score for the answer that credibility will allow central banks to change tactics was 4.38, only slightly lower than the average score for the argument that credibility will help to keep inflation low (score 4.39). However, the changing-tactics-argument was only ranked fifth in question 10. The argument that is it less costly to disinflate received the fifth score in terms of the average score, while it was ranked second in question 10.

The rankings of the academic economists differed somewhat from that of the central bankers. The largest difference occurred with respect to the support-for-independence argument, which was ranked seventh by the economists, and fourth by the central bankers. However, the academic economists agreed with central bankers in their number one and two rankings (i.e. to keep inflation low, and less costly to disinflate).

[6] We thank Uli Klueh for pointing this out.

Table 1. Blinder's (2000) survey among central bankers about credibility

Question:	Issue:	Average:	Stand. dev.:
Q1	Importance	4.83	0.37
Q2	Related to dedication to price stability	4.10	n.a.
Q3	Less costly disinflation	4.13 (2)	0.78
Q4	To keep inflation low	4.39 (1)	0.60
Q5	To change tactics	4.38 (5)	0.54
Q6	To serve as lender of last resort	4.12 (6)	0.77
Q7	To defend the currency	4.29 (3)	0.70
Q8	Public servants should be truthful	4.00 (7)	0.84
Q9	For support of independence	4.34 (4)	0.75
Q10	Ranking of Q3 to Q9 (shown in parentheses)	--	--
Q11	Importance of CBI for credibility	4.51 (2)	0.63
Q12	Importance of transparency for credibility	4.13 (4)	0.71
Q13	Importance of history of honesty for credibility	4.58 (1)	0.52
Q14	Importance of history of fighting inflation for credibility	4.15 (3)	0.67
Q15	Importance of being constrained by a rule for credibility	2.89 (6)	1.01
Q16	Importance of incentives (personal loss) for credibility	2.15 (7)	1.10
Q17	Importance of small deficit and low debt ratio for credibility	3.92 (5)	0.93

Note: rankings on questions Q3 to Q9 (=Q10) and Q12 to Q17 (ranked by mean scores) are shown in parentheses.

Source: Blinder (2000)

How can credibility be earned? Questions 11 to 17 in Blinder's survey give various possible answers of which the scores are again shown in Table 1. The ranking (in this case based on average scores) is given in parentheses. The top-rated way for a central bank to establish credibility, according to central bankers (and academic economists as well), is to 'have a history of doing what it says it will do'. Although the economic literature is full of optimal contracts for central bankers (e.g. Walsh, 1995) and incentive-compatible payment schemes (e.g. Svensson, 1997), central bankers give these options a rather low rating, as did academic economists.

4. Our survey on credibility

We were able to hold a survey directed towards economists in OECD countries that participate in Ifo's *World Economic Survey (formerly known as Economic Survey International ESI)*. The Ifo Institute has been running this survey since 1981 (Brand et al., 1997, Haupt and Waller, 2000).[7] 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.

The explanatory power of the World Economic Survey (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.
- 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. As we

[7] Haupt and Waller (2000) examined whether the incorporation of WES data in econometric models significantly improves their ability to analyze and forecast economic developments. Concentrating on the survey data on inflation, these authors found that forecasting models which incorporate WES survey data clearly outperform models which don't. This leads to the conclusion that the WES respondents have relevant information about future developments.

have information on the respondents, we can differentiate between economists from various countries. We distinguish between economists from countries in the euro area and those from other countries. We can also differentiate between economists affiliated with financial institutions (banks, insurance companies, etc.) and those working with other firms or research institutes. Finally, the survey allows us to analyze whether the inflation experience of the country where the respondent is located is systematically related to the answers given.

Most of the questions that we asked correspond to those in the Blinder (2000) survey.[8] Our first question corresponds to Q1 in Table 1, i.e.:

Question 1: *How important is credibility to a central bank?*

The possible answers on a five-point scale are the same as in the Blinder survey. Following Blinder (2000), we did not provide our respondents with a definition of credibility. Blinder (p. 1422) motivates this as follows: "I deliberately failed to provide a precise definition of credibility, allowing each respondent to attach his or her own preferred meaning to the term. In fact, there appears to be no generally agreed-upon definition."

We also did not ask our respondents to give their definition. However, our second question asks about the relationship between credibility and dedication to price stability. The question is almost the same as Q2 in Table 1, i.e.:

Question 2: *How closely are the concepts of credibility and dedication to price stability related?*

The possible answers on a five point-scale range from unrelated (1) to virtually the same (5).

Table 2 shows the results of our survey. As far as the importance of credibility is concerned (Q1), our respondents gave almost as high a mark as central bankers, although the standard deviation is somewhat higher. Also as far as the relationship between credibility of a central bank and its dedication to price stability is concerned (Q2) the average score of our respondents is very close to those of Blinder's survey among central bankers. Professional economists apparently agree more on this issue with central bankers than with acedemic economists.

[8] We thank Alan Blinder for providing his survey to us.

Table 2. Our survey of private sector economists about credibility

Question:	Issue:	Average:	Stand. dev.:
Q1	Importance	4.66	0.49
Q2	Related to dedication to price stability	4.02	0.61
Q3	Less costly disinflation	3.31 (2)	2.09
	To keep inflation low	3.40 (3)	1.68
	To change tactics	3.26 (1)	1.72
	To serve as lender of last resort	3.74 (4)	1.71
	To defend the currency	3.96 (5)	1.91
	Public servants should be truthful	5.82 (7)	1.70
	For support of independence	4.53 (6)	1.86
Q4	Importance of CBI for credibility	1.80 (1)	1.32
	Importance of transparency for credibility	3.13 (3)	1.46
	Importance of history of honesty for credibility	2.93 (2)	1.43
	Importance of history of fighting inflation for credibility	3.70 (4)	1.36
	Importance of being constrained by a rule for credibility	4.85 (5)	1.47
	Importance of incentives (personal loss) for credibility	6.38 (7)	1.07
	Importance of small deficit and low debt ratio for credibility	5.26 (6)	1.49

As we could only ask a limited number of questions, we did not ask our respondents to answer Blinder's questions Q3 to Q9. Instead, we asked the respondents to rank the seven reasons instead of using the five point answering scheme for each question.

Question 3: *Can you rank (from 1 to 7, where 1 is highest) the following reasons that are often considered as explanations why credibility may be important for a central bank?*

- A more credible central bank can reduce inflation at lower social cost

- A more credible central bank is better able to maintain low inflation once low inflation has been achieved
- A more credible central bank will find it easier to change tactics or operating procedures without upsetting markets or creating doubts about its underlying objectives or its resolve
- A more credible central bank will find it easier to act as a lender of last resort in a financial crisis (e.g., during a market crash or bank run) without creating fears that it has lost its dedication to fighting inflation
- A more credible central bank will find it easier to defend its currency in case of a speculative attack
- Central bankers are public servants, who, therefore, have a duty to be open and truthful
- Credibility is important as a way to justify public support for an independent central bank.

The outcomes of this question can be compared with question Q10 in Blinder's survey. Some notable differences between both surveys show up. The strongest divergence of rankings exists with respect to the usefulness of credibility for changing tactics. Our respondents gave this reason for the importance of credibility the highest ranking, whereas the central bankers in Blinder's survey ranked this reason only fifth.[9] Another interesting result is the ranking of the importance of credibility for price stability in both surveys. Whereas central bankers put this on top of their list, our respondents ranked it third. Credibility as a means to support central bank independence plays only a minor role, according to our respondents. This result is in line with Blinder's findings for academic economists, who ranked it seventh. However, central bankers gave it rank 4.

Next, we asked our respondents to rank the various possibilities given by Blinder as to how a central bank can build credibility. So Blinder's questions Q11 to Q17 are combined to:

Question 4: *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

[9] However, as pointed out before, in terms of the average score on importance, the changing-tactics-argument got rank 2 in the central bankers' survey.

- 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 create central bank credibility.

The rankings of our respondents are broadly in line with those of the central bankers (and academic economists) in Blinder's survey. A history of honesty and central bank independence got the highest ranking in both surveys. Personal incentives for central bankers are not regarded as an adequate means to earn credibility.

Table 3 shows the outcomes of three sub-samples of our respondents: economists from euro area countries, economists affiliated with a financial institution, and economists based in countries that had relatively high inflation rates in the past.[10] The answers from economists from banks and insurance companies as to the reasons why credibility is important and how it can be built are very much in line with the results for our total sample. The same is true for economists located in the euro area and in countries with relatively high inflation rates in the past.

[10] This has been calculated as follows. Using the IMF's Classification of Advanced Economies (taken from the World Economic Outlook), we calculated average inflation rates for the period from 1971 to 2000 (long-term) and from 1990 to 2000 (medium-term). For the long-term, we calculated an average inflation rate of 7%, for the medium-term of 3%. High-inflation countries had above average inflation in both periods.

Table 3. Our survey of private sector economists about credibility: economists from EMU countries, financial institutions, and high-inflation countries

Question:	Issue:	EMU based:	Financial Institutions:	High inflation countries:
Q1	Importance	4.65	4.78	4.67
Q2	Related to dedication to price stability	4.10	4.15	4.03
Q3	Less costly disinflation	3.29 (2)	2.82 (1)	3.43 (3)
	To keep inflation low	3.38 (3)	3.49 (3)	3.75 (4)
	To change tactics	3.41 (1)	3.12 (2)	3.33 (1)
	To serve as lender of last resort	3.62 (4)	3.81 (4)	3.85 (5)
	To defend the currency	3.99 (5)	4.28 (5)	3.40 (2)
	Public servants should be truthful	5.75 (7)	5.99 (7)	5.71 (7)
	For support of independence	4.57 (6)	4.54 (6)	4.57 (6)
Q4	Importance of CBI for credibility	1.89 (1)	1.75 (1)	1.75 (1)
	Importance of transparency for credibility	3.05 (3)	3.09 (3)	3.36 (3)
	Importance of history of honesty for credibility	3.01(2)	2.97 (2)	2.89 (2)
	Importance of history of fighting inflation for credibility	3.71 (4)	3.59(4)	3.88 (4)
	Importance of being constrained by a rule for credibility	4.79 (5)	5.18 (5)	4.75 (5)
	Importance of incentives (personal loss) for credibility	6.43 (7)	6.19 (7)	6.36 (7)
	Importance of small deficit and low debt ratio for credibility	5.11 (6)	5.35 (6)	5.05 (6)

Finally, we asked our respondents to rank 7 central banks with respect to their credibility. Specifically:

Question 5: *Can you rank (from 1 to 7, where 1 is highest) the following central banks in terms of their credibility?*

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

Table 4 presents our findings for the credibility marks of the various central banks. It follows that our respondents gave the Federal Reserve the highest mark, closely followed by the Bundesbank. The credibility of the Bank of England and the ECB are clearly better than that of the Bank of Japan and the Banca d'Italia.

Table 4. Our survey: rankings of central banks in terms of their credibility

Central Bank:	Average:	Standard deviation:
Banca d' Italia	6.42 (6.29)	1.02
Bank of England	3.74 (3.56)	1.19
Bank of Japan	5.48 (5.71)	1.29
Banque de France	4.86 (4.82)	1.14
Deutsche Bundesbank	1.89 (2.25)	1.12
European Central Bank	3.86 (3.52)	1.39
Federal Reserve	1.79 (1.59)	1.10

Note: The rankings in parentheses are the result of a second survey, held in October 2001.

Table 5 shows the scores for economists in our sample who are affiliated with financial institutions, who are based in an EMU country, or are from a high-inflation country. 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. The rating of the ECB by economists affiliated with

financial institutions is somewhat worse than in Table 4, while the opposite holds for economists from high-inflation countries.

Table 5. Rankings of credibility of central banks: economists from EMU countries, financial institutions, and high-inflation countries

Central Bank:	EMU based:	Financial Institutions:	High inflation countries:
Banca d' Italia	6.30	6.24	6.23
Bank of England	3.95	3.71	3.65
Bank of Japan	5.53	5.80	5.68
Banque de France	4.83	4.76	4.90
Deutsche Bundesbank	2.03	1.94	1.94
European Central Bank	3.56	4.03	3.70
Federal Reserve	1.81	1.50	1.90

To examine whether over time the credibility of the ECB has improved, we have repeated question 5 in another survey held in October 2001. In Table 4 the results of this second survey are shown in parentheses. Interestingly, the score of the ECB has improved somewhat.

So far, we have only analyzed and compared the results of the total samples of both surveys. It should be noted, however that the samples do differ significantly in size – the sample of the first survey was almost twice as big as in the follow-up survey – and in their composition. Several participants took part in the first survey but not in the second one and vice versa. The answers of experts who participated in both surveys allow for a more in depth analysis of the change of assessments and opinions over time. Unfortunately, this reduces the sample to 58 participants. Table 6 shows the outcomes for the rankings of the respondents who participated in both surveys, as well the rankings based on the full samples. The results for both samples are identical: the ECB has been able to improve its position.

Table 6. Credibility rankings over time: all respondents

	Respondents participating in both surveys		Whole Sample	
	2000	2001	2000	2001
Federal Reserve	1	1	1	1
Deutsche Bundesbank	2	2	2	2
Bank of England	**3**	**4**	**3**	**4**
ECB	**4**	**3**	**4**	**3**
Banque de France	5	5	5	5
Bank of Japan	6	6	6	6
Banca d'Italia	7	7	7	7

As follows from Table 7, respondents in EMU countries gave the ECB a higher rating in the follow-up survey. Although they generally consider the ECB somewhat less credible than most other respondents, among respondents from financial institutions the ECB has gained some ground, too, and has surpassed the Banque de France. In low-inflation countries the ECB also surpassed the Bank of England in terms of credibility. In the high-inflation countries, the ECB maintained its position and is still ranked fourth after the Fed, the Bundesbank and the Bank of England.

Table 7. Credibility rankings over time: various groups of respondents

Central Bank:	EMU based:				Financial Institutions:				Low inflation countries:			
	Respondents participating in both surveys		Whole Sample		Respondents participating in both surveys		Whole Sample		Respondents participating in both surveys		Whole Sample	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Federal Reserve	1	1	1	1	1	1	1	1	1	1	1	1
Deutsche Bundesbank	2	2	2	2	2	2	2	2	2	2	2	2
Bank of England	**3**	**4**	4	4	3	3	3	3	**3**	**4**	**3**	**4**
ECB	**4**	**3**	3	3	**5**	**4**	4	4	**4**	**3**	**4**	**3**
Banque de France	5	5	5	5	**4**	**5**	5	5	5	5	5	5
Bank of Japan	6	6	6	6	7	6	6	6	6	6	6	6
Banca d'Italia	7	7	7	7	6	7	7	7	7	7	7	7

5. Transparency and central bank independence

We finally have asked our respondents to rank seven central banks according to their transparency and independence. Again, we did not provide the respondents with our definitions of these concepts for reasons explained earlier. The results for transparency are presented in Table 8. Two conclusions can be drawn. First, the ranking of central banks in terms of transparency is the same as for the ranking in terms of credibility. This finding can be interpreted in different ways. Our respondents may, for instance, consider the concepts to be closely related. Alternatively, they may have simply ranked central banks on the basis of their recent performance.

Second, the results on (perceived) transparency by our respondents are broadly in line with an earlier survey by Goldman and Sachs held in February 2000 in which a sample of financial market participants was asked to rate on a scale of 1 to 5 how well they understood the reasoning behind monetary policy decisions of four central banks (a higher grade indicates a better understanding). In this survey 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). Likewise, in our survey the Federal Reserve and the (old) Deutsche Bundesbank are clearly perceived as more transparent than the ECB. Second, the Bank of England has a very similar score as the ECB in our survey.

Table 8. Our survey: rankings of central banks in terms of their transparency

Central Bank:	Transparency:
Banca d'Italia	6.17 (0.94)
Bank of England	3.33 (1.38)
Bank of Japan	5.93 (1.24)
Banque de France	4.86 (1.04)
Deutsche Bundesbank	2.63 (1.24)
European Central Bank	3.17 (1.50)
Federal Reserve	1.66 (1.21)

These results are very much out of line with the rankings as implied by various indicators of transparency/disclosure. These indicators are constructed on the basis of a list of questions on issues relating to transparency (like: does the central bank publish an inflation report, are economic forecasts published, are there press conferences during which policy decisions are explaind, etc.). Table 9 gives the summary scores of the indicators of Fry et al. (2000), Gros and Bini-Smaghi (2001), Amtenbrink and De Haan (2002), Eijffinger and Geraats (2002), and Siklos (2002). Most indicators rank the ECB quite high, except for the indicator of Siklos (2002) that gives the ECB the lowest ranking of the banks under consideration here. The latter outcome is somewhat 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 index 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 zero) and a low weight on items like publication of reports, regular speeches on which the ECB gets the highest score possible. [11]

How can the discrepancy between the high degree of disclosure and the public perception of the ECB's transparency be explained? A possible cause for the low score on perceived transparency may be found in the quality of the information being provided. As pointed out by the IMF (2000), transparency requires more than just making information available about policy objectives, responsibilities, policy decisions, and performance results. The content of disclosure is critical for the efficient functioning of markets and its importance will only increase with the evolving changes in international trading and financing arrangements and sophistication of markets. Failure to present public statements and reports on monetary policy issues with appropriate content could undermine the credibility of central banks and result in corresponding behavior by the financial markets, thereby negatively influencing the outcome of monetary policy. The focus of disclosure should be on the materiality and relevance of the information that is

[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 zero), 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 zero on this element.

being provided to the public. The objective of transparency would for example not be met by the release of reports that offer contradictory assessments. The same holds true for contradicting public statements by the members of the decision-making organs of the central bank, something that the ECB has been criticized for in the past and sometimes rightly so.[12]

Table 9. Transparency indicators

Central Bank:	Fry et al. (2000)	Gros and Bini-Smaghi (2001)	Amtenbrink and De Haan (2002)	Eijffinger and Geraats (2002)	Siklos (2002)
Max. score:	1.00	30	19	15	1.00
Banca d'Italia	0.81	n.a.	n.a.	n.a.	0.43
Bank of England	0.94	24	18	12.5	0.91
Bank of Japan	0.89	14	n.a.	8	0.74
Banque de France	0.53	n.a.	n.a.	n.a.	0.22
Deutsche Bundesbank	0.70	13	10	n.a.	0.70
European Central Bank	n.a.	19	16	10	0.52
Federal Reserve	0.95	16	11	10	0.87

[12] Hämäläinen (2001) acknowledges this: "It is true that we have not always been very successful in our communication despite ambitious intentions. But communication is not easy in a pan-European context in which differing cultures, languages, traditions and motives affect how messages are interpreted by the different counterparties involved."

Often the low degree of ECB transparency is related to the monetary policy strategy of the ECB. Begg et al. (2000, p. 25) find, for example that "Our observations of ECB's deeds and words in 1999 […] suggest that much remains to be done to communicate the precise meaning of the announced monetary policy strategy. Unless the ECB clarifies its intentions it will take time - possibly a lot of time - for outside observers to form a clear view."[13]

In the second survey we also asked our respondents to rank various central banks with respect to independence. The results are presented in Table 10. It follows that the Fed is perceived to be more independent than the Bundesbank by our respondents. The ECB gets a similar rating as the Bundesbank. Still, in this case, the results for independence as perceived by our respondents are more in line with the rankings implied by indicator for legal central bank independence as shown in Table 11.[14]

[13] See De Haan et al. (2004) for an extensive discussion of the monetary policy strategy of the ECB.

[14] The index of Alesina (1989) focuses on questions like: does the central bank have final authority over monetary policy?; are there government officials on the governing board of the bank? and are more than half of the board members appointed by the federal government? Grilli, Masciandaro and Tabellini (1991) present indices of political and economic independence. The first focuses on appointment procedures for board officials, the length of their term in office and the existence of statutory requirements to pursue monetary stability. The economic independence indicator focuses on the extent to which the central bank is free from government influence in implementing monetary policy. Generally the total score on the political and economic independence is employed as an indicator for legal central bank independence. Eijffinger and Schaling (1993) have constructed an index which centres on three items: the location of the final responsibility for monetary policy, the absence or presence of a government official on the board of the central bank and the fraction of board appointees made by government. Central bank laws under which the central bank is the final authority get a double score in this index. The number of positive answers plus one gives the total score on this index. Cukierman (1992) provides an index which is the aggregate from sixteen basic legal characteristics of central bank charters which in turn are grouped into four clusters: 1. the appointment, dismissal and legal term of office of the governor of the central bank; 2. the institutional location of the final authority for monetary policy and procedures to resolve conflicts between the government and the bank; 3. the importance of price stability in comparison to other objectives; 4. the stringency and universality of limitations on the ability of government to borrow from the central bank. The index of Fry et al. (2000) is based on a survey among central bankers. See footnote 5.

Table 10. Our survey: rankings of central banks in terms of their independence

Central Bank:	Independence:
Banca d'Italia	6.20 (0.89)
Bank of England	3.65 (1.32)
Bank of Japan	5.74 (1.30)
Banque de France	5.07 (1.14)
Deutsche Bundesbank	2.59 (1.31)
European Central Bank	2.57 (1.46)
Federal Reserve	1.95 (1.25)

6. Concluding comments

We have reported the results of a survey among private sector economists about credibility and transparency of central banks. In line with the survey of Alan Blinder among central bankers, we asked participants in Ifo's World Economic Survey to answer questions on the importance and determinants of credibility. The results of both surveys are very comparable. Credibility is considered to be important to attain price stability at low cost, while the best ways to earn credibility are a history of honesty and a high level of central bank independence. Central bankers, academic and professional economists all agree on this. According to our respondents, the Federal Reserve is the most credible, transparent and independent central bank out of large seven central banks. The ECB is not perceived as highly credible or tranparent, even though our respondents consider it to be very independent.

Table 11. Central bank independence indicators

Central Bank:	Alesina	Grilli-Masciandaro-Tabellini	Cukierman	Eijffinger-Schaling	Fry et al.
Banca d'Italia	1.5	5	0.22	2	0.88
Bank of England	2	6	0.31	2	0.77
Bank of Japan	3	6	0.16	3	0.93
Banque de France	2	7	0.28	2	0.90
Deutsche Bundesbank	4	13	0.66	5	0.96
European Central Bank	4	14	0.94	5	n.a.
Federal Reserve	3	12	0.51	3	0.92

Source: Eijffinger and De Haan (1996, 2000)

Note: the index of Fry et al. differs from the other indicators, as the index is based on a survey among central bankers, whereas the other indicators are based on the interpretation of the central bank law by the author(s) who constructed the particular index. The index of Fry also refers to the beginning of 2000, while the other indicators refer to the situation before EMU.

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