

Editorial

Central bank transparency and central bank communication: Editorial introduction

Jakob de Haan^{a,b,*}, Sylvester C.W. Eijffinger^{b,c,d,e}, Krzysztof Rybiński^f

^a *Department of Economics, University of Groningen, The Netherlands*

^b *CESifo, Denmark*

^c *CentER, Tilburg University, The Netherlands*

^d *RSM Erasmus University, The Netherlands*

^e *CEPR, UK*

^f *National Bank of Poland, Warsaw, Poland*

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Abstract

Central banks now tend to attach greater importance to communication with the public than formerly was the case. Although the trend towards more transparency is justified by central bank accountability, it is less obvious that more central bank transparency is also beneficial from an economic point of view. It is also not clear what constitutes an optimal communication strategy. This introduction to the special issue on “Central bank transparency and central bank communication” reviews our current state of knowledge in this field and puts the contributions to this special issue in perspective.

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1. Introduction

Before the 1990s, central banks were very much shrouded in mystery. Transparency of central bank decision-making has increased rapidly in recent years beginning with the adoption of inflation targeting by the central banks of New Zealand, Canada, the U.K. and Sweden. Also central banks with different monetary policy strategies became more transparent, as documented by [Poole \(2005\)](#) for the case of the Federal Reserve. Nowadays, most central banks put a much larger weight on their communication with the public than they used to do. An important trigger for increased transparency has been the requirement for greater accountability of independent

* Corresponding author. Tel.: +31 503633706; fax: +31 50 3633720.

E-mail address: jakob.de.haan@rug.nl (J. de Haan).

central banks. As central banks have become more independent over time, they have to pay closer attention to explaining what they do and what underlies their decisions. More transparency and increased use of communication is partly a logical consequence of this development.

Even though central bank accountability justifies this trend towards more transparency, it is less obvious that more central bank transparency is also beneficial from an economic point of view. Therefore, many theoretical studies analyse whether transparency can be justified from an economic point of view as well. These studies vary not only with respect to different aspects of central bank transparency, but also regarding the structure of the economy determining the monetary transmission mechanism. Cukierman (2002) provides a comparison of three popular models: a neo-monetarist Lucas-type model, a neo-Keynesian model with backward-looking pricing, and a new-Keynesian model with forward-looking pricing. The welfare effects of increased transparency differ across these models.

Besides this theoretical research, numerous empirical studies have addressed the economic consequences of transparency using recently developed indices of central bank transparency, such as Eijffinger and Geraats (2006). For example, Chortareas et al. (2002) find for their sample of 87 countries that their index of transparency, which is based upon the detail in central banks' published forecasts, is negatively related to average inflation, also if various control variables are taken up.

Geraats (2002) offers a comprehensive overview of the literature on the economic effects of central bank transparency, arranging the literature based on five different categories of transparency: political, economic, procedural, policy, and operational transparency. Another survey is provided by Hahn (2002). Since the publication of these overview papers, the literature on central bank transparency has continuously developed. Several new research strands have emerged, such as the literature on learning based on Evans and Honkapohja (2001), and the work on coordination games initiated by Morris and Shin (2002).

Nowadays the ability of central banks to affect the economy critically depends upon their ability to influence market expectations regarding the *future path* of overnight interest rates, and not merely their current level. Therefore, the public's understanding of current and future policies is critical for the effectiveness of policy. In other words, monetary policy is increasingly becoming the art of managing expectations. As a result, communication has developed into a key instrument in the central bankers' toolbox in recent years. Virtually all central banks in advanced economies have taken major steps in using communication as a key instrument in monetary policy-making. For example, many central banks, including the Bank of England (BoE) and the Federal Reserve System, publish minutes and voting records, while the European Central Bank (ECB) explains its monetary policy decisions at the day of the meeting of its decision-making body at a press conference.

The increased importance of communication for policy-makers is mirrored by the rapid development of the academic literature on this topic. Researchers have highlighted two reasons why communication may prove useful for central banks. First and foremost, communication may be a very direct and effective tool to influence expectations. Therefore, it plays a seminal role in improving the effectiveness of monetary policy and, consequently, the economy's overall performance. Second, communication may be used to reduce noise in financial markets. More policy transparency may lead to greater predictability of central bank actions, which, in turn, reduces the uncertainty in financial markets.

However, it is by no means clear what constitutes an optimal communication strategy, as it is not straightforward that providing more information is always preferable. Any communication strategy of a central bank is faced with a potential conflict as the literature on transparency has shown that a maximum level of information need not be optimal for the efficiency with which it is able to pursue its mandate.

Indeed, from a theoretical perspective it is not obvious that communication may help the central bank in realizing its ultimate objective(s), like price stability and stable economic growth. Communication has little value added if the central bank credibly commits to a policy rule. Assuming that the public has rational expectations, any systematic pattern in the way that policy is conducted should be correctly inferred from the central bank's observed behaviour (Woodford, 2005). Thus, when it comes to predicting future interest rates, it suffices to interpret (forecasts of) economic data in view of the central bank's policy rule; there is no need for central bank communication. Following Faust and Svensson's (2001, p. 373) definition of central bank transparency—i.e. how easily the public can deduce central bank goals and intentions from 'observables'—one might say that a central bank can be fully transparent without any communication.

This stylised example makes clear that there are, essentially, three reasons why central bank communication may matter: non-rational expectations, asymmetric information, and absence of policy rules and credibility. If one or more of these conditions hold, central bank communication may have an impact on financial markets.

First, the assumption that the public will understand monetary policy perfectly regardless of the efforts that are made to explain it may be unrealistic. King (2005) poses that the public may follow simple (but possibly fairly robust) 'heuristics' in making decisions instead of following optimising behaviour. He argues that in this case central bank communication can play an important role in leading people to choose heuristics of the right sort: "the more the central bank can do to behave in a way that makes it easy for the private sector to adopt a simple heuristic to guide expectations the better." A good heuristic from that point of view would be 'expect inflation to be equal to target' (King, 2005, p. 12). In other words, by communicating to the public the central bank may help anchoring expectations.

Bernanke (2004) refers to the recent literature on adaptive learning in explaining why communication affects monetary policy effectiveness. When the public does not know but instead must estimate the central bank's reaction function, there is no guarantee that the economy will converge to the optimal rational expectations equilibrium because the public's learning process *itself* affects the behaviour of the economy. The feedback effect of learning on the economy can lead to unstable or indeterminate outcomes. In such a setting, communication by the central bank may play a key role in helping improve economic performance.

Second, financial-market participants generally do *not* have as much information as monetary policy-makers do about a number of key inputs to policy-making, including the policy-makers' objectives, their assessment of the economic situation, and their policy strategy. If there is asymmetric information, i.e. if the public and the central bank dispose of different information, it is perfectly rational for the public to adjust its expectations. The central bank may, for instance, provide information about its reaction function. This should lead, *ceteris paribus*, to an increase in the private sector's ability to forecast the central bank's policy instrument. One possibility in countries without explicit inflation targets is that the central bank provides information about the long-run inflation target of the central bank. Likewise, the central bank could provide information on the relative weights it places on its output and inflation objectives. Furthermore, the central bank may have better information on the economic outlook. Kohn and Sack (2004) argue that private agents may lend special credence to the economic pronouncements of central bank, particularly if the central bank has established credibility as an effective forecaster of the economy. However, even if the central bank has private information an important issue that remains to be settled is under which circumstances release of this information may be beneficial, i.e. contributes to realizing the objective(s) of the central bank.

Finally, most central banks do not follow a fixed rule. For example, Bernanke (2004) poses that "specifying a complete and explicit policy rule, from which the central bank would never deviate

under any circumstances, is impractical. The problem is that the number of contingencies to which policy might respond is effectively infinite (and, indeed, many are unforeseeable).” Likewise, president Trichet of the ECB has repeatedly stressed that the ECB takes its decisions one step at a time. For example, in the Q&A session after the interest rate decision on 2 March 2006, Trichet stated: “We do not engage a priori in a series of interest rate hikes...we do not pre-commit ourselves unconditionally.” By commenting on recent or expected economic developments or by giving hints, the central bank may therefore influence financial markets’ expectations.

2. Outline of the special issue

In this special issue various theoretical and empirical papers are brought together that shed some light on central bank transparency and the design and effectiveness of central bank communication. Most of these papers have been presented at the National Bank of Poland conference “Central Bank Transparency and Communication” in 2005.

2.1. Transparency: theory

The first two papers in this special issue examine under which circumstances more central bank transparency may be beneficial. The aim of central bank transparency is to lessen or eliminate informational asymmetries between central bank decision-makers and the private sector. As pointed out in the previous section, one perspective that can be illuminating is adaptive learning. Even though substantial progress in modelling the adaptive process by which learning agents form and update their expectations has been made, the issue of central bank transparency has been largely neglected in this literature. Berardi and Duffy reconsider private sector learning in the context of a new-Keynesian model with the aim of understanding the value of central bank transparency. In their model, transparent policies enable the private sector to adopt correctly specified models of inflation and output while non-transparent policies do not. In the former case, the private sector learns the rational expectations equilibrium while in the latter case it learns a restricted perceptions equilibrium. These possibilities arise regardless of whether the central bank operates under commitment or discretion. Berardi and Duffy provide conditions under which the policy loss from transparency is lower or higher than under non-transparency, which allow them to assess the value of transparency when agents are learning.

One important question that central banks are faced with is what kind of information should be disclosed. More information may not always be better. Eijffinger and Tesfaselassie use a model with forward-looking behaviour to study disclosure policy when a central bank has private information on the future state of the economy. They find that the effects of advance disclosure depend on the presence of uncertainty about policy targets when an economic shock occurs. With uncertainty about policy targets, disclosure is harmless to current outcomes, owing to the strong dependence of inflation expectations on policy actions, which induces the central bank to focus exclusively on price stability. However, if the central bank’s targets are common knowledge, disclosure of future shocks impairs stabilization of current inflation and output.

2.2. Benefits of transparency

Central bank transparency may increase the credibility of the central bank. Building greater trust by credibly communicating a long-term inflation objective may lead to less inflation persistence, since there is a strong belief that inflation will return to its target level. Two papers in

this special issue examine this in different ways. Van der Cruijssen and Demertzis use the transparency indicator of Eijffinger and Geraats (2006) to examine whether central bank transparency affects the relationship between inflation and inflation expectations. If a central bank is very credible, the link between current and expected inflations will be weak. Van der Cruijssen and Demertzis find that in countries with low-transparency central banks a significant positive link exists between inflation and inflation expectations, while this relationship is absent in countries with central banks with high levels of transparency. They also show that more transparency is also associated with less inflation persistence.

Łyziak, Mackiewicz and Stanisławska examine the transparency and credibility of the National Bank of Poland (NBP) during the inflation targeting regime in the period 1998–2004. They distinguish between the transparency of the monetary policy framework and of policy decisions. With respect to the former, they present some indicators suggested in the literature, while with respect to the latter they analyse the formation of interest rate expectations by commercial bank analysts. As far as NBP credibility is concerned, they evaluate the way in which inflation expectations of consumers and commercial bank analysts are formed and how they are related to the inflation target.

Proponents of central bank transparency often favour an inflation targeting strategy, as it is highly transparent. Indeed, inflation targeting has become the monetary policy framework of the nineties. Still, several central banks have recently adopted key elements of the inflation targeter's toolkit, but also made formal declarations that they are not inflation targeters. Baltensperger, Fischer and Jordan consider why it may be beneficial for a central bank to distinguish itself from the inflation targeting strategy. Their hypothesis is that the institutional set-up is crucial. A particular characteristic of non-self proclaimed inflation targeters is that they operate with a high level of goal independence. Central banks value goal independence for it enhances trust in the institution and allows them to operate with greater flexibility. The authors claim that goal independence can act as a substitute to inflation targeting.

2.3. Communication

Central bank communication can be defined as the provision of information by the central bank to the general public on the objectives of monetary policy, the monetary policy strategy, the economic outlook, and the (outlook for future) policy decisions. Central bank communication may use various channels: press conferences, minutes, monthly bulletins, speeches and interviews. The literature on this topic has shown that there is no optimal central bank communication strategy. What works for one central bank may not work for the other. An important issue here is how the decision-making process within the central bank is related to its communication strategy. This issue is examined in more detail by Blinder. A broad consensus has emerged that delegating the monetary policy decision to an independent committee of individuals leads to a superior policy for a number of possible reasons, such as the ability to pool judgments of different individuals, ability to learn from other members, or the increased flexibility that committees show in responding to shocks of different magnitudes. However, committees come in a wide variety of shapes and sizes. Broadly speaking, policy decisions within the committee may be made in a highly collegial manner, or they are taken primarily on the basis of the members' personal views. Likewise, communication may be more collegial or individualistic. In the latter case the diversity of views in the committee becomes clear, while in the former the central bank considers that this might risk inhibiting clarity and common understanding and therefore communication mainly conveys the committee view and consensus among its members.

Another relevant issue that has received scant attention in the literature so far, is the timing of central bank communication. There could be more intense communication as the meeting of the policy-making body comes closer, in order to prepare the public for the upcoming meeting. Alternatively, there may be relatively few statements before rate meetings in order to prevent turbulence in financial markets. Central banks might see a need for more frequent communication if interest rates had just been changed, or if they will most likely be changed at the next meeting. In all these cases, the intensity of communication is endogenous to the central bank's decision-making.

Ehrmann and Fratzscher compare the timing of communication of the Federal Reserve, the ECB, and the Bank of England. They find that in general on the days immediately prior to the monetary policy meetings, there is a considerably smaller amount of communication compared to other days. Furthermore, the intensity of communication is different before than after meetings for all three central banks. With the exception of the days surrounding the monetary policy meetings, there is a somewhat higher level of activity before than after meetings, stressing the attempt of central banks to prepare markets for the upcoming meeting. Especially the Federal Reserve and the Bank of England intensify the frequency of communication in order to convey their intention of an interest rate change. Other findings are more heterogeneous across central banks. Communication by members of the Bank of England's MPC intensifies somewhat in times of increased market volatility, and the ECB's Governing Council members step up the frequency of communication if there is a need to explain the monetary policy decision taken in the preceding Governing Council meeting.

The next three papers examine the impact of communication of various central banks in more detail. Researchers have employed different methods to examine the impact of central bank communication on financial markets. One line of research starts from the presumption that no clear way exists to quantify communication. [Kohn and Sack \(2004\)](#) therefore focus on the *volatility* of the financial variables on days of central bank communication. The basic idea is that if communication has an effect on the financial variables, then the volatility of those variables should be higher on the days of central bank communication than it otherwise would be. The major drawback of the indirect approach is that it does not examine the impact of communication on the mean of the financial variable of interest. Therefore various researchers have quantified communication in order to be able to examine the direction and the magnitude of the effect of communication on financial variables.

A good example is the study of [Ehrmann and Fratzscher \(in press\)](#). These authors have used the newswire *Reuters News* to extract all reports about forward-looking policy statements and the economic outlook by central bankers of the Federal Reserve, the Bank of England, and the ECB on a daily basis and classify them in three categories (easing/neutral/contracting and weaker/unchanged/stronger, respectively). Statements on the economic outlook are quantified accordingly.

In a similar way, Rosa and Verga analyse the impact of the introductory statement by the ECB President at the monthly press conference following a Governing Council meeting. These statements are coded on a scale from -2 (easing) to $+2$ (tightening), which yields an indicator of the ECB's policy inclination. The authors find that the predictive ability of these statements is similar to that implied by market-based measures of monetary policy expectations. Moreover, ECB words provide complementary, rather than substitutable, information with respect to macroeconomic variables. Finally, they show that market expectations react to the unexpected component of the information released by the ECB, after controlling for the monetary policy shock.

Rozkrut, Rybiński, Sztaba and Szwaja examine the impact of central bank “talk” in the Czech Republic, Hungary, and Poland. They find that policy-makers’ verbal comments and central bank communiqués influence financial markets. This effect, however, differs among the analysed countries. The Czech central bank seems to do a much better job than the other two central banks when it comes to matching words with deeds. Moreover, it is shown that communication affects monetary policy predictability, but here the results depend on the committee structure and communication style of the central bank concerned. Finally, these authors provide evidence that pursuance of too many targets in an inflation targeting framework leads to inconsistencies also in the field of central bank communication.

Finally, Reeves and Sawicki examine how United Kingdom financial markets react to Bank of England communication using a similar methodology as [Kohn and Sack \(2004\)](#). They examine the effect of communication on the squared residuals from regressions of yield changes controlling for monetary and macroeconomic surprises using daily and intra-day data. The authors find evidence that the publication of the *Minutes* of Monetary Policy Committee meetings and the *Inflation Report* significantly affect near-term interest rate expectations, an effect particularly visible in intra-day data.

2.4. *Communication on exchange rates*

The final papers in this special issue deal with the role of central bank communication on exchange rates. The first paper focuses on the degree of disclosure of foreign exchange interventions. To many it is puzzling that most sterilized interventions are conducted in secret. Central bank interventions are reported, if at all, with a considerable time lag, and they may involve several exchange brokers or commercial banks in order to conceal the true size and intention of the intervention. Barnett and Ozerturk study the effectiveness of foreign exchange rate targeting by a central bank in a market microstructure framework. Unlike the existing literature, where the intervening central bank either makes its exchange rate target public or hides it completely, they present a model that emphasizes the value of selectively disclosing intervention relevant information to some but not all market participants. The authors show that if the market’s uncertainty over the central bank’s target is sufficiently high and if the central bank is targeting the exchange rate away from its fundamental value (attempting to move the exchange rate in the opposite direction of where the fundamental based trade takes it) selectively disclosing the exchange rate target improves the effectiveness of the intervention.

There is a lively controversy whether central bank talk can move exchange rates in a preferred direction, which is akin to the debate on whether or not sterilized foreign exchange interventions affect exchange rates. Whereas [Jansen and De Haan \(2005\)](#) find, for instance, that attempts by European central bankers to “talk up” the euro were not successful, [Fratzscher \(2004\)](#) concludes that central bank communication has a positive impact on the foreign exchange market. In the final paper, Jansen and De Haan extend the literature by using for the first time high-frequency euro–dollar exchange rates to examine the effects of efforts by European central bankers to verbally support the euro. Based on a direction, a smoothing and a volatility criterion, they find little evidence that ECB verbal interventions were effective, confirming their earlier findings. These authors also conclude that the most important determinant of effectiveness is whether or not the verbal intervention is captured in the news report headline. Verbal interventions that coincide with releases of macroeconomic data are followed by lower exchange rate volatility. Finally, they report that there is no difference in the effects of comments by ECB Executive Board members and presidents of national central banks.

References

- Bernanke, B., 2004. Fed speak. Remarks at the Meetings of the American Economic Association, San Diego, California. January 3.
- Chortareas, G., Stasavage, D., Sterne, G., 2002. Does it pay to be transparent? *Federal Reserve Bank of St. Louis Review* 84 (4), 99–118.
- Cukierman, A., 2002. Are contemporary central banks transparent about economic models and objectives and what difference does it make? *Federal Reserve Bank of St. Louis Review* 84 (4), 15–36.
- Ehrmann, M., Fratzscher, M., in press. Communication by central bank committee members: different strategies, same effectiveness? *Journal of Money, Credit, and Banking*.
- Eijffinger, S., Geraats, P., 2006. How transparent are central banks? *European Journal of Political Economy* 22, 1–21.
- Evans, G., Honkapohja, S., 2001. *Learning and Expectations in Macroeconomics*. Princeton University Press, Princeton, NJ.
- Faust, J., Svensson, L.E.O., 2001. Transparency and credibility: monetary policy with unobservable goals. *International Economic Review* 42, 369–397.
- Fratzscher, M., 2004. Communication and exchange rate policy. ECB Working Paper, vol. 363. European Central Bank, Frankfurt.
- Geraats, P., 2002. Central bank transparency. *Economic Journal* 112, F532–F565.
- Hahn, V., 2002. Transparency in monetary policy: a survey. *Ifo Studien* 48, 429–455.
- Jansen, D., De Haan, J., 2005. Talking heads: the effects of ECB statements on the euro–dollar exchange rate. *Journal of International Money and Finance* 24, 343–361.
- King, M., 2005. Monetary policy: practice ahead of theory. 2005 Mais Lecture, delivered at Cass Business School (London, May 17).
- Kohn, D.L., Sack, B., 2004. Central bank talk: does it matter and why? *Macroeconomics, Monetary Policy, and Financial Stability*. Bank of Canada, Ottawa, pp. 175–206.
- Morris, S., Shin, H., 2002. Social value of public information. *American Economic Review* 92, 1521–1534.
- Poole, W., 2005. How predictable is Fed policy? Speech by the President of the Federal Reserve Bank of St. Louis. University of Washington, Seattle. October 4.
- Woodford, M., 2005. Central bank communication and policy effectiveness. NBER Working Paper, No. 11898. National Bureau of Economic Research, Cambridge MA.