

IN-DEPTH ANALYSIS

Requested by the ECON committee

Monetary Dialogue Papers, February 2020



The ECB's Communication Strategy: Limits and Challenges After the Financial Crisis



Policy Department for Economic, Scientific and Quality of Life Policies
Directorate-General for Internal Policies
Authors: Kerstin BERNOTH and Geraldine DANY-KNEDLIK
PE 642.371 - January 2020

EN

The ECB's Communication Strategy: Limits and Challenges After the Financial Crisis

Monetary Dialogue Papers,
February 2020

Abstract

Given its central role in public accountability and in the formation of expectations, it is important to reflect on ways to improve the ECB's communication policy. Communication should not generally strive for maximum transparency. The optimum degree of transparency varies between different aspects of monetary policy and banking supervision. Although the ECB already communicates very openly with the public and achieves a very high level of transparency in all aspects, we see room for improvement in its communication strategy in several respects.

This document was provided by Policy Department A at the request of the Committee on Economic and Monetary Affairs.

This document was requested by the European Parliament's Committee on Economic and Monetary Affairs.

AUTHORS

Kerstin BERNOTH, DIW Berlin and Hertie School
Geraldine DANY-KNEDLIK, DIW Berlin

ADMINISTRATOR RESPONSIBLE

Drazen RAKIC

EDITORIAL ASSISTANT

Janetta CUJKOVA

LINGUISTIC VERSIONS

Original: EN

ABOUT THE EDITOR

Policy departments provide in-house and external expertise to support EP committees and other parliamentary bodies in shaping legislation and exercising democratic scrutiny over EU internal policies.

To contact the Policy Department or to subscribe for updates, please write to:

Policy Department for Economic, Scientific and Quality of Life Policies
European Parliament
L-2929 - Luxembourg
Email: Poldep-Economy-Science@ep.europa.eu

Manuscript completed: January 2020

Date of publication: January 2020

© European Union, 2020

This document was prepared for the February 2020 Monetary Dialogue between the ECON Committee and the ECB President. It is available on the internet, also as part of a compilation, at:

<https://www.europarl.europa.eu/committees/en/econ/monetary-dialogue.html>

DISCLAIMER AND COPYRIGHT

The opinions expressed in this document are the sole responsibility of the authors and do not necessarily represent the official position of the European Parliament.

Reproduction and translation for non-commercial purposes are authorized, provided the source is acknowledged and the European Parliament is given prior notice and sent a copy.

For citation purposes, the study should be referenced as: BERNOTH, K. and DANY-KNEDLIK, G., *The ECB's Communication Strategy: Limits and Challenges After the Financial Crisis*, Study for the Committee on Economic and Monetary Affairs, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg, 2020.

CONTENTS

LIST OF ABBREVIATIONS	4
LIST OF BOXES	5
LIST OF FIGURES	5
LIST OF TABLES	5
EXECUTIVE SUMMARY	6
1. INTRODUCTION	7
2. CENTRAL BANK COMMUNICATION AND TRANSPARENCY	8
2.1. Why central bank communication matters	8
3. CENTRAL BANK TRANSPARENCY AND ITS LIMITS	9
3.1. Political transparency	9
3.2. Economic transparency	10
3.3. Procedural transparency	11
3.4. Policy transparency	11
3.5. Operational transparency	12
4. CHANGES TO ECB'S COMMUNICATION SINCE THE CRISIS	14
4.1. ECB's political transparency: new tasks	14
4.2. ECB's economic transparency: revealing and explaining more	16
4.3. ECB's procedural transparency: finally, we have minutes	17
4.4. ECB's policy transparency: short and clear in difficult times	17
4.4.1. Scheduled communication	17
4.4.2. Communication on new policy instruments	17
4.4.3. Unscheduled communication	18
5. EFFECTIVENESS OF ECB'S POLICY COMMUNICATION	19
5.1. Communication of policy decision: generally effective	19
5.2. Asset purchase programmes: announcing the quantity reduces uncertainty	20
5.3. Forward guidance	21
5.4. Speeches: diverging views cause uncertainty	21
6. CHALLENGES FOR THE ECB'S COMMUNICATION STRATEGY IN THE FUTURE	23
7. CONCLUSIONS	27
REFERENCES	28

LIST OF ABBREVIATIONS

APP	Asset Purchase Programme
BOJ	Bank of Japan
CBPP	Covered Bond Purchase Programme
CRD IV	Capital Requirements Directive IV
ECB	European Central Bank
FED	Federal Reserve System
FOMC	Federal Open Market Committee
GDP	Gross Domestic Product
GFC	Great Financial Crisis
HICP	Harmonised Index of Consumer Prices
IMF	International Monetary Fund
OMT	Outright Monetary Transactions
RBNZ	Reserve Bank of New Zealand
SMP	Securities Markets Programmes
SSM	Single Supervisory Mechanism
TFEU	Treaty on the Functioning of the European Union
TLTRO	Long-term Refinancing Operations

LIST OF BOXES

Box 1:	Types of forward guidance	22
--------	---------------------------	----

LIST OF FIGURES

Figure 1:	Categories of central bank transparency	9
Figure 2:	Changes in central bank transparency	14
Figure 3:	Evolution of the number of words used in the ECB's introductory statement	18
Figure 4:	ECB Executive Board member speeches before, during and after the GFC	18
Figure 5:	Perceived dominance of Fed and ECB policy statements	19
Figure 6:	Stock market volatility at specific policy announcements	21

LIST OF TABLES

Table 1:	Communication tools of major central banks	15
----------	--	----

EXECUTIVE SUMMARY

- **Central bank communication should not generally strive for maximum transparency.** The optimum degree of transparency varies between different aspects of monetary policy. The reasons for a certain lack of transparency in central bank communication include legal constraints, uncertainties about the reliability of economic data and modelling results, as well that this information could pose a threat to financial stability.
- **Overall, the ECB communicates openly with the public and achieves a high level of transparency in all aspects.** However, in the course of the global financial crisis (GFC), central bank communication has become more important, as market participants have found it more difficult to predict monetary policy (re)actions.
- **The new Presidency and the ongoing strategy review present an opportunity** for the ECB to improve and refocus its monetary policy strategy in the light of changing economic and financial conditions and new challenges.
- **The new tasks that the ECB has taken in the last decade make it more difficult to delineate the ECB's mandate across these fields,** e.g. the separation of monetary and supervisory functions. Clarifying the interaction between its supervisory activities and monetary policy is essential.
- In light of persistently low inflation rates since 2009, **the ECB should also consider to reformulate its definition of price stability** by announcing a quantitative target range for inflation in addition to a point target.
- **The more open the ECB gets, the more important it becomes that it communicate clearly to the public that it is operating under considerable uncertainty,** so that deviations from monetary objectives can be properly assessed without a gradual loss in confidence.
- **Since the ECB has only recently taken up supervisory responsibilities, it has had little opportunity to build up a reputation in this field.** Against this background, transparency in the area of financial supervision is even more important. In order to increase accountability, the ECB should at some point consider publishing the minutes of the SSM Supervisory Board with appropriate time lag and redacting overly sensitive parts.
- To avoid unnecessary market volatility and uncertainty, **the information content of speeches by individual Governing Council members should, as far as possible, be aligned with the ECB's official position.** In addition, official statements by central bankers should refrain from using emotional formulations as far as possible in order to increase clarity and credibility,
- Faced with inflation, which has been most of the time below the inflation target since 2009, **the ECB is surprisingly reluctant to provide a detailed assessment explaining why the policy outcome is not as intended** despite increased policy efforts. More transparency in this respect is essential to maintain the ECB's credibility.

1. INTRODUCTION

Until the 1990s, central banks were typically closed institutions. They neither explained much about their objectives and strategies nor informed markets about the economic assessments underpinning monetary policy decisions. This kept communication with the public to a minimum. The main argument for this secrecy was to protect central banks from political pressure. This was felt to be important because of the so-called 'time inconsistency' problem in monetary policy: In recognition of the trade-off between short-term economic stimulus and long-term inflation in response to a monetary policy stimulus, policymakers have a stronger incentive to pursue an excessively expansionary monetary policy than central bankers with a clear mandate for price stability.¹ Under the assumption that politicians are more reluctant to take a stand and override the central bank when they are uncertain about the economic environment, a certain level of opacity can shield the central bank from excessive interference by politicians, helping it to maintain its independence while protecting the economy from excessive inflation.

However, the way central banks communicate with the public has changed significantly since the 1990s. Most central banks have become much more transparent. It is recognized that the benefits of clear and open communication with the public are greater than the aforementioned costs. Nowadays, central banks provide the public and the financial markets with all relevant information about their strategy, economic and financial assessments, monetary policy decisions, and procedures in a clear and timely manner. By and large, enhanced communication is intended to achieve two useful objectives. First, as most central banks have gained a high degree of independence from political or government authorities in recent decades, the demand for transparency has increased to combat public distrust and strengthen democratic accountability. Second, it is recognized that communication can be a powerful tool for managing expectations regarding inflation and interest rate developments as well as for reducing uncertainties and financial market volatilities, thus making monetary policy much more effective.

The question that arises with these developments is whether there is an optimal level of transparency and communication. Is more always better or are there also limits beyond which the risks of more transparency outweigh the benefits of more transparency? Since many central banks, including the European Central Bank (ECB), also have a supervisory function over the banking system, the question arises of whether the transparency framework for monetary policy also applies to banking supervision. In 2006, the Basel Committee on Banking Supervision first mentioned in its Core Principles that supervisors should follow transparent processes, which means that supervisors should also disclose their objectives and be held accountable through a transparent framework for the discharge of their duties. This briefing paper is intended to provide an answer to these questions. In addition, we examine the ECB's communication in terms of transparency and identify areas where we see room for improvement.

¹ See Walsh (2017) for a literature overview on the 'time inconsistency problem' in monetary policy.

2. CENTRAL BANK COMMUNICATION AND TRANSPARENCY

2.1. Why central bank communication matters

For economic decisions, longer-term interest rates play a much more important role than current short-term overnight rates. Therefore, monetary policy can influence the economy most effectively if the central bank successfully influences market expectations about the future path of interest rates. This becomes apparent if we look at the expectations hypothesis of the term structure of Interest rates, which suggests that the interest rate of a longer-term instrument (R_t) on the n^{th} trading day can be approximated by:

$$(1) \quad R_t = \alpha_n + (1/n)(r_t + r_{t+1}^e + r_{t+2}^e + \dots + r_{t+n-1}^e) + \varepsilon_{1,t},$$

where r_t is current short-term rate, r_{t+1}^e is the expected short-term interest rate of $n - 1$ days in the future, and α_n is the term premium, which is assumed to be stochastic (ε_t). Equation (1) implies that long-term interest rates depend on market expectations about short-term interest rates in the future. From a central bank perspective, the crucial question is how to form these expectations on the future path of short-term interest rates.

In a world where economic agents are rational and fully informed about the true underlying model of the economy and have perfect knowledge of the central bank's reaction function to which the central bank credibly commits, central bank communication would be redundant (Woodford, 2005). This is because the agents know exactly what the policy objective and intentions are and, therefore, can interpret incoming economic data correctly and derive future monetary policy measures. Obviously, the assumptions under which the central bank's communication plays no role are quite unrealistic.

In general, the importance of communication as a policy instrument can be derived from three main sources. First, there are changes in the underlying economic model, including the policy rules and/or the parameters of the model that actors have to learn about over time. Second, actors might not form their expectations in a rational manner and, finally, the central bank might have superior knowledge or capacity to process incoming economic data compared to the general public (asymmetric information). Under these more realistic conditions, the impact of monetary policy operates through the direct effect of changes in the current short-term interest rate and through the central bank's signals on future short-term rates. This idea can be captured by the following formula:

$$(2) \quad r_{t+n-1}^e = H_n(y_t, R_t, \dots, s_t) + \varepsilon_{2,t}.$$

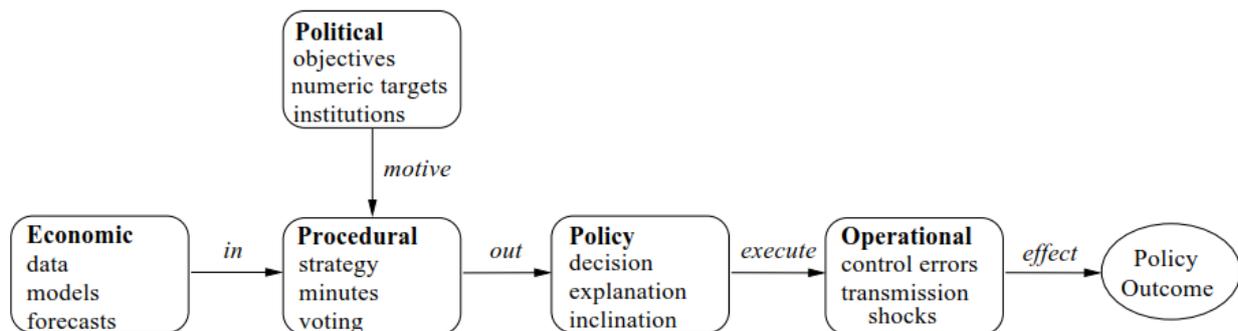
This states that the expected short-term interest rate depends on the observation of incoming economic data (y_t, R_t, \dots) and signals of the central bank (s_t). Thus, the impact of monetary policy operates through the direct effect of changes in the current short-term interest rate and through the central bank's signals on future short-term rates.

Central bank communication becomes even more important during deep recessions, as severe crises can make it difficult for market participants to predict monetary policy (re)actions (Coenen et al., 2017). Due to the high level of economic uncertainty, market participants may have difficulty in identifying the set of information on which economic decisions are based. Moreover, once conventional policy tools have reached their limits, e.g. the zero-lower bound, agents could lose confidence in the effectiveness of monetary policy, which could affect the public's ability to predict future policy actions. Finally, when new policy instruments are introduced, agents have limited knowledge of these unconventional tools and their effectiveness.

3. CENTRAL BANK TRANSPARENCY AND ITS LIMITS

The optimal degree of central bank communication very likely depends on what kind of information is published, so it is useful to distinguish between different aspects of transparency. Geraats (2002) provides a taxonomy for analysing the transparency of monetary policy, focusing on five distinct areas of transparency processes relating to different parts of the policymaking process, as shown in Figure 1. For each of these categories, we discuss in the following the limits and main challenges for effective central bank communication.

Figure 1: Categories of central bank transparency



Source: Geraats (2002).

3.1. Political transparency

Political transparency refers to clarity about policy objectives and the institutional framework. The publication of quantitative targets as well as a clear hierarchy of mandates and objectives increases transparency in this aspect.

Over the past decades, price stability has become increasingly viewed as the most important goal of monetary policy. The main argument is that price stability is the central contribution that monetary policy can make to achieve a favourable economic environment. However, central banks differ with respect to the priority setting of additional mandates, e.g. low unemployment and stable output growth. In case of a multiple mandate, the central bank has several co-equal objectives, e.g. price stability and support of the real economy. The main risk of having a multiple mandate is the potential conflict of interest. In the short run, a central bank could run an overly expansionary monetary policy to boost economic growth and employment without worrying about the long-run consequences for inflation. A clear hierarchical mandate avoids such a conflict and enhances transparency of a central bank's incentives. However, Mervyn King, the former Governor of the Bank of England, once said, it also bears the risk that central banks behave as 'inflation nutters' that focus solely on inflation control even in the short run and undertake policies that lead to large output fluctuations.

With the growing popularity of inflation targeting as a central bank strategy, a large number of central banks have announced a clear quantitative target for inflation. For the euro area, for instance, the Governing Council has defined that 'price stability shall be defined as an annual increase in the harmonised index of consumer prices (HICP) for the euro area of below, but close to 2 %'.² Even the Fed

² <https://www.ecb.europa.eu/mopo/strategy/pricestab/html/index.en.html>

further clarified its mandate in January 2012 by announcing an inflation target of 2 % in the long-term. However, most central banks do not quantify targets for the output gap or unemployment, even when this is included in their mandate. There are good arguments why most central banks refrain from specifying their objective function in these aspects. As Cukierman (2009) argues, one important reason is that monetary policy decisions are usually made by committees and the different committee members usually place different weight on stabilising inflation versus output stability. This weight is also very likely to be time- and state-dependent. Another reason is statistical in nature. As Orphanides (2001) shows, measures of economic performance, such as the output gap, are very unreliable in real time and *ex-post* measurement errors are significant. This makes a trustworthy forecast of the output gap difficult, which would, however, be necessary for a consistent monetary policy decision along all potential target parameters. In addition, due to its inaccuracy, the output gap is not an appropriate measure by which the central bank could be held accountable. If quantitative targets for unemployment and/or economic growth cannot be set for the aforementioned reasons, a qualitative and clear communication of how mandates other than price stability are embedded in the monetary strategy is especially important and increases the political transparency. But, in light of the difficulties in further specifying additional mandates, it is unlikely that perfect political transparency can be achieved.

3.2. Economic transparency

Economic transparency focuses on the economic information used for political decision-making. In this context, an important aspect of a central bank's communication strategy is the scope and content of the forward-looking information it provides (Blinder et al., 2008). This set of information may include the central bank's assessment of future inflation and economic activity. With respect to its supervisory role, the central bank will release information about its supervisory model, including the criteria used to evaluate the riskiness of a bank, the indicators used, and the methodology followed for the supervisory review. Transparency about the supervisory model gives market participants a means of better understanding how the authority decides on individual cases, even when details of those cases cannot be disclosed. The purpose of providing all this information is to help the public and the markets understand central bank actions, to reduce financial market volatility, and to enhance the credibility of the central bank.

As highlighted by Cukierman (2009), one risk of a central bank being very open to the public in its economic and monetary assessment is that it may give the public a distorted impression of what it really knows. In particular, the rationalisation of decisions by econometric models may not fully reflect the information that led to a particular forecast or decision. In reality, central banks generally operate under considerable uncertainty regarding the structure of the economy, the measurement of economic variables, the consequences of their actions, and, to some extent, even their own internal forecasts. Central banks that produce forecasts of inflation and economic development must, therefore, emphasise that any forward-looking assessment depends on current information and is subject to change.

Thus, central banks walk a fine line between clarity and conciseness versus full openness about their own limitations and internal procedures. The feasibility constraints on economic transparency are nicely summarised by a quote by Olivier Blanchard (2006) p.1-2: *There is little doubt that the theory of monetary policy has made tremendous strides over the last twenty years. In this sense, monetary policy is much closer to science than it was then. But it is still very far from science. Indeed, I worry that we have been lulled - or we have lulled ourselves - into a sense of complacency, which is not warranted. There are still many issues we do not understand, and these may come back to bite us with a vengeance in the future.'*

In summary, there will always be feasibility limits to economic transparency. The public should always be reminded of this to avoid having the central bank's information supplant the public's own assessment of the economic environment (Morris and Shin, 2002) and to prevent the central bank from losing credibility in the event of deviations from monetary policy objectives.

3.3. Procedural transparency

Procedural transparency provides openness about the way policy decisions are taken and communicated to the public. Typical communication channels of procedural transparency are the publication of meetings minutes or transcripts.

Central banks disagree over how much should be disclosed about the decision-making process itself, e.g. through the release of minutes summarising the main policy discussions and detailed voting records. The main argument in favour of full and timely disclosure of the views of each committee member is democratic accountability and that they enhance the public's understanding of the central bank's thinking. However, there are also several arguments against full disclosure of procedural processes. If the members of the Committee were to diverge strongly in their assessment of the current economic trend and the necessary monetary policy decisions, this could lead to uncertainty, as the public would doubt whether the monetary policy decision was the correct one. Furthermore, when committee members know that their positions and arguments become public shortly after Council meetings, this could lead to short-term political and personal career factors dominating their deliberations and voting behaviour instead of the public interest.

In a monetary union like the euro area, there are additional arguments for limiting procedural transparency. As pointed out by Issing (1999) and Gersbach and Hahn (2009), the majority of Governing Council members are the heads of the national central banks, who are appointed by national governments that are accountable to their national electorates. While the term of office of the six members of the Executive Board is limited in time, there is no limit on the reappointment of the heads of national central banks. The publication of attributed minutes or voting records may prompt each central banker to vote in the interest of their national government, with reappointment as an expected reward. Thus, the secrecy of the voting minutes shields national central bankers from the harmful influence of national governments, thereby encouraging behaviour that promotes the welfare of monetary union as a whole rather than national interests. As a result, monetary policy is less sensitive to regional shocks.

3.4. Policy transparency

Policy transparency includes the prompt announcement and explanation of policy adjustments, the political declaration and the indication of the likely direction of policy actions in the short- to medium-term (forward guidance).

Crowe and Meade (2008) find that almost all advanced economies have experienced a significant increase in policy transparency since the 1990s. Today's standard communication tools for policy transparency include pre-planned press releases on policy decisions, press conferences explaining policy decisions not just in the context of the current economic outlook but also in relation to central bank mandates, written reports and analyses providing even more detailed information on policy transmission and the effectiveness of policy instruments, as well as speeches by central bankers. In practice, the content and tone of policy statements announced in press conferences following a monetary policy meeting is particularly important for steering market expectations.

Since the global financial crisis, policy communication has become one of the central measures for monetary policy. The low interest rate environment and the subsequent introduction of

unconventional policy measures raised a variety of new aspects of policy communication. Generally, policy communication has become much more forward-looking and, thus, much more transparent compared to pre-crisis times.

However, the increased transparency of future monetary policy actions by central banks also implies that these announcements have to be clearly and carefully formulated to avoid increasing market uncertainty. With respect to the publication of the expected future path of interest rates (forward guidance), a misleading communication can reduce the credibility of the central bank. For example, if the central bank announces that it will keep interest rates low for an extended period of time, but the economic outlook improves unexpectedly and the central bank revises its policies. Moreover, forward looking guidance requires clear conditionality and must be formulated precisely, otherwise it can lead to market uncertainty. Another example is the so-called 'taper tantrum' in the United States, where volatility in the financial markets increased for several months after the Fed Chairman announced in May 2013 that the tapering of asset purchases could start in the following the next policy meetings. In particular, the statement included a fairly strong time-dependent guidance 'in the next few meetings' and a rather blurred state-dependent guidance that the purchases would be tapered when the labour markets were 'strong'. Despite the fact that the revival of asset purchase programs could generally cause uncertainty in the financial markets, the unclear outlook on this occasion may have increased market volatility.

In the context of banking supervision, an open communication about threats to financial stability or decisions on individual banks is also problematic. As argued by Cukierman (2009), it can be counterproductive and highly risky to publish signals about potential problems in parts of the financial system. Such disclosure may trigger a run on the banks or other unpredictable movements in the financial markets, forcing the monetary authority to take even more expansive steps to defend the financial system than it would have done in the absence of immediate openness. Banking supervision often involves sensitive and proprietary information. Early disclosure of information on the soundness of individual banks, especially when the picture is not yet complete and any necessary countermeasures have not yet been taken or planned, can be risky and counterproductive, endangering financial stability. To certain extent, the disclosure of bank-specific information may even be illegal.

In summary, although communication on monetary policy decisions has become much more transparent than in the past, there are conceptual and also legal obstacles to full policy transparency, especially with regard to banking supervision and unconventional monetary policy measures.

3.5. Operational transparency

Operational transparency refers to clarity about the implementation of monetary policy measures. It includes an evaluation of monetary policy outcomes and a discussion on the impact of (unexpected) macroeconomic disturbances on the monetary policy transmission mechanism. Similar to economic transparency, operational transparency requires openness about macroeconomic information. However, instead of publishing expected shocks e.g. through forecasts that help explain policy decisions, it focuses on communicating unexpected disturbances (forecast errors) that help explain policy outcomes.

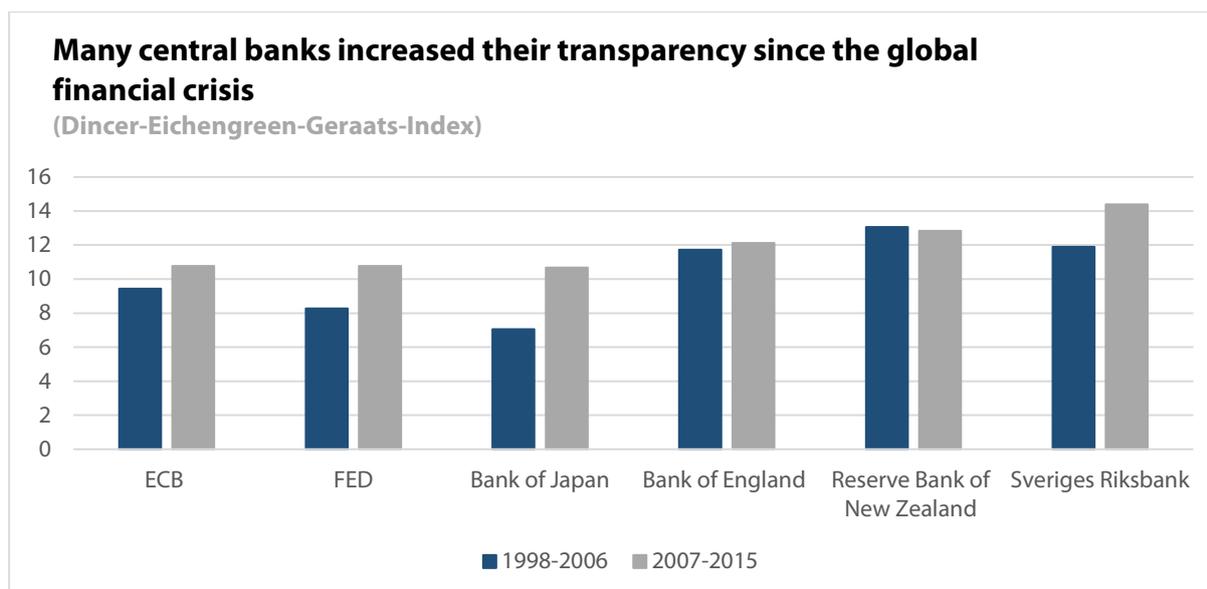
Operational transparency facilitates *ex post* accountability because it explains why policy outcomes may not be as intended. This is particularly important in a world with macroeconomic uncertainty and long, complex monetary transmission processes. By identifying shocks the central bank did not anticipate, the general public is still able to infer the central bank's intentions and a loss in credibility is avoided in case of deviations from target.

However, as Jensen (2002) points out, disclosure of control errors or unexpected transmission shocks could also have adverse effects. This is particularly true if the central bank discloses an unforeseen supply shock before the policy outcome has been realised. In this case, the public includes this new information in its expectations of inflation such that it influences the outcome of inflation and leads to higher inflation volatility. Therefore, the timing of communication of unexpected macroeconomic disturbances is critical.

4. CHANGES TO ECB'S COMMUNICATION SINCE THE CRISIS

In international comparison, the ECB covers a wide range of pre-scheduled communication tools and offers a high level of transparency on all five aspects discussed above (Table 1). In addition to the explicit statements of its objective and strategy on their website, the ECB informs the general public through the publication of press statements and the organisation of press conferences following policy decisions, the release of the ECB staff macroeconomic projections as well as publication of the Financial Stability Review and the Economic Bulletin (former Monthly Bulletin). In addition, regular reports like the staff projections provide further information on the ECB's assessment of the current economic outlook and serve as background information supporting the reasoning of the policy decision.

Figure 2: Changes in central bank transparency



Source: Dincer et al. (2019), own calculation.

Like many other central banks, the ECB has intensified its communication efforts since the global financial crisis. This has led to a gradual improvement of the ECB's transparency (Figure 2). Presenting a survey of 214 participants working in central banks, international institutions, and academia, Blinder et al. (2017) show that over 80 % of the participants think that their central bank communicates more with the public during and after the global financial crisis than before. 70 % of participants also think that this improved communication should be maintained or further intensified. Subsequently, we present major changes to the ECB's main communication instruments in the recent years.

4.1. ECB's political transparency: new tasks

When the Eurosystem was established in 1999, the Treaty on the Functioning of the European Union (TFEU) gave the ECB a relatively narrow mandate against which the behaviour of the central bank should be assessed: the objective of price stability shall take precedence over other objectives such as low unemployment and stable output growth. Only without prejudice to the objective of price stability, the Eurosystem shall also support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union.

In 1998, the Governing Council of the ECB announced its monetary strategy for fulfilling its mandate, which has only been adjusted once after the last 'Review of monetary policy strategy' in 2003. The official strategy today includes three main elements. First, it confirms its strict objective of price stability. Remarkable here is that considerations of output and unemployment stabilisation are, in contrast to the ECB's official mandate, not mentioned in the strategy. Second, it assigns a quantitative definition of price stability stating that 'price stability shall be defined as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below but close to 2 %.' And 'price stability is to be maintained over the medium term'³. Third, it introduces the 'two pillar framework' to evaluate the risks to price stability. This framework consists of an economic analysis to identify short to medium run risks to price stability and a second pillar containing a monetary analysis to assess medium- to long-term inflation developments.

Table 1: Communication tools of major central banks

	ECB	Fed	BoJ	RBNZ	Sveriges Riksbank
Speeches	Yes	Yes	Yes	Yes	Yes
Release of objectives	Yes	Yes	Yes	Yes	Yes
Quantitative inflation target	Yes	Yes	Yes	Yes	Yes
Explicit point target	Yes	Yes	Yes	Yes	Yes
Explicit target range	No	No	No	Yes	Yes (2017)
Press statement after a policy decision	Yes	Yes	Yes	Yes	Yes
Release of Minutes	Yes (2015)	Yes	Yes	Yes	Yes
Minutes include voting	No	Yes	Yes	NA	Yes
Minutes include individual voting	No	Yes	Yes	NA	Yes
Minutes include individual comments	No	No	No	NA	Yes
Forecast release	Yes	Yes	Yes	Yes	Yes
Frequency of forecast release	4 x per year	4 x per year	4 x per year (2014)	4 x per year	6 x per year

³ https://www.ecb.europa.eu/press/pr/date/1998/html/pr981013_1.en.html

Release of forecast range	Yes (2013)	Yes	Yes	No	Yes
Forecast horizon	3 years (2013)	2-3 years	2 years	2-3 years	3 years

Source: Respective central banks.

The ECB’s political transparency has been challenged by the increasing number of additional responsibilities that the ECB has assumed since 2009. From the outset, the European Monetary Authority was responsible for monitoring and assessing the stability of the financial system, as well as for dealing with general financial shocks and easing the tensions in the euro area money market. However, after the ECB became the supreme banking supervisory authority in the euro area in 2014, through the Single Supervisory Mechanism (SSM), its responsibilities in this area increased significantly. So far, the ECB’s role in banking supervision is declared to be: establishing common supervision, taking harmonised supervisory actions, as well as ensuring the consistency in the application of regulations and policies. In addition, the ECB became part of the so-called ‘Troika’, a decision-making group set up jointly with the European Commission and the International Monetary Fund (IMF) to negotiate the conditionality of Member States’ bailout programs.

4.2. ECB’s economic transparency: revealing and explaining more

As long as the information published does not conflict with its constitutional obligations, the ECB is very transparent in informing the public about its own economic assessment. Eight times a year, the ECB publishes its Economic Bulletin, which covers the main economic, financial, and monetary developments that form the basis for the Governing Council’s monetary policy decisions. It publishes the Eurosystem’s consolidated financial statement every week, which provides comprehensive information on monetary policy, foreign exchange operations, and investment activities. In addition, the ECB publishes quarterly its medium-term forecasts for inflation and its main expenditure components, as well as for a number of other important macroeconomic and fiscal variables. The ECB is highly transparent with regard to the organisational and procedural framework used for the macroeconomic projections prepared by its staff (ECB, 2016). The projections are based on a range of theoretical and empirical models as well as other tools combined with the judgement of economic experts.

Since the crisis, the ECB revised its standard communication instruments on their economic environment. In 2014, not only were the set of macroeconomic variables forecasted substantially enlarged, but also fan charts of point forecasts and confidence intervals of HICP and GDP were included. The explanatory text of the report was nearly doubled from around 3 000 words per report to 6 000 words. In 2015, the ECB started to publish country-specific forecasts in addition to euro area figures biannually. The revised version of the staff projections provides a much deeper basis for understanding the basis on which policy decision are taken by the Governing Council.

With respect to its supervisory function, economic transparency has also increased over time. Since the inception of the SSM, a new and fully harmonised statistical reporting system following International Financial Reporting Standards (IFRSs) for all significant and less significant financial institutions has been established. Its website contains documents specifying SSM governance and decision-making as well as a summary of its Supervisory Manual, statements by the Chair at the European Parliament, as

well as speeches by other representatives. Finally, since 2015, the ECB publishes an annual report covering its supervisory tasks.

4.3. ECB's procedural transparency: finally, we have minutes

The main communication instruments of procedural transparency is the release of minutes summarising the main policy discussions and, in some cases, detailed voting records. In contrast to many other central banks of advanced economies, the ECB did not publish any documentation of discussions at monetary policy meetings. This changed in 2015 when the ECB started to publish the 'accounts' (minutes) of the Governing Councils' meetings. In contrast to other central banks like the US Fed, these minutes contain neither voting results on policy decisions nor individual statements of the Governing Council members in the decision process.

4.4. ECB's policy transparency: short and clear in difficult times

4.4.1. Scheduled communication

The main communication instruments to convey information and explanation about the monetary policy decisions takes place on the day of the decision-making and is publically prescheduled. It contains the release of a written press statement and a following press conference held by the President and the Vice-President on the early afternoon after each monetary policy meeting of the Governing Council.⁴ The press conference is accessibly broadcasted live on the ECB's website and a transcript of the full press conference is published shortly thereafter. The ECB has followed this framework from the outset and is exemplary for policy communication of other central banks. Recent imitators include the Fed, where the Chairwomen/men introduced a regular press conference in 2011.

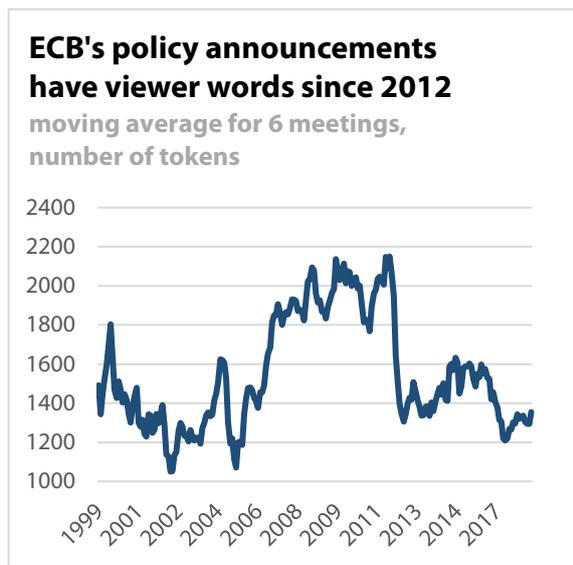
Although the setup of policy communication has not changed, the content has. Text-based analysis shows that the introductory statements of the press conference have become somewhat shorter since 2007 (Figure 3). Moreover, statements have become more forward looking and include frequent references to core rather than overall inflation (Coenen et al., 2017).

4.4.2. Communication on new policy instruments

The introduction of new unconventional policy measures has been particularly challenging for central bank communication, as most market participants have limited knowledge of these new instruments. In particular, the central bank must provide information on technical details like design and modalities, while simultaneously communicating the rational and economic impact of the instruments. The ECB's communication strategy on unconventional policy varies according to the different instruments. When most of the instruments were introduced, the ECB provided an intuition for the design, scope, and justification of the new measures in its press releases and during press conferences on the day of the decision. For some new instruments, the ECB also published technical annexes and further details on the precise modalities. Good examples include the asset purchasing program (APP) and the targeted long-term refinancing operations (TLTRO). In contrast, for the securities markets programmes (SMP) implemented in May 2010 and August 2011, neither the volume nor a detailed description of the modalities and data on purchases were published by the ECB. Immediately after the end of the second wave of the SMP, the ECB released purchased volumes by countries.

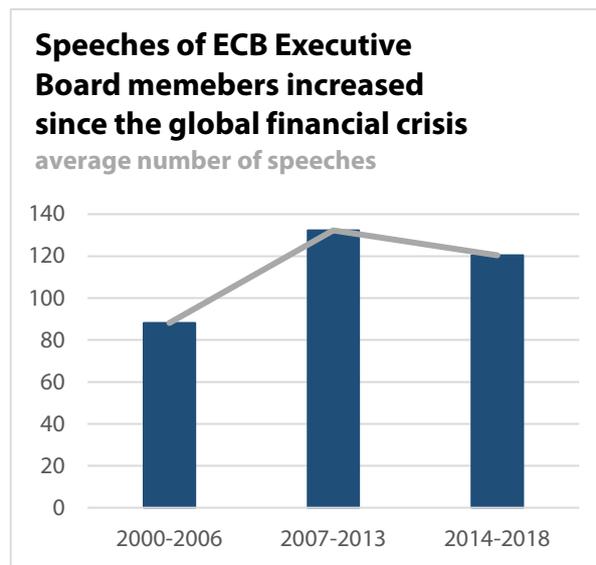
⁴ In 2015, the frequency of monetary policy decisions changed from four to six weeks. The communication on policy decisions changed accordingly.

Figure 3: Evolution of the number of words used in the ECB’s introductory statement



Source: ECB, own calculation.

Figure 4: ECB Executive Board member speeches before, during and after the GFC



Source: ECB, own calculation.

4.4.3. **Unscheduled communication**

The ECB has also intensified the use of infrequent communication. The average number of speeches by Executive Board members per year increased from 88 before the crisis to 126 since 2007 (Figure 4). The looser format and infrequent timing allows central bank leaders to deliver targeted messages to the public when needed. Since the crisis, members of the Executive Board have increasingly used this more open and flexible way of communication. The most prominent example is the ‘what-ever-it-takes’ speech of Mario Draghi at the Global Investment Conference in London in July 2012.

5. EFFECTIVENESS OF ECB'S POLICY COMMUNICATION

There are two key issues in assessing the effectiveness of central bank communication. First, does central bank communication provide signals to market participants that steer their expectations in the intended direction and increase the predictability of the future path of interest rates? Second, does the news from the central bank reduce public uncertainty about the economic outlook?

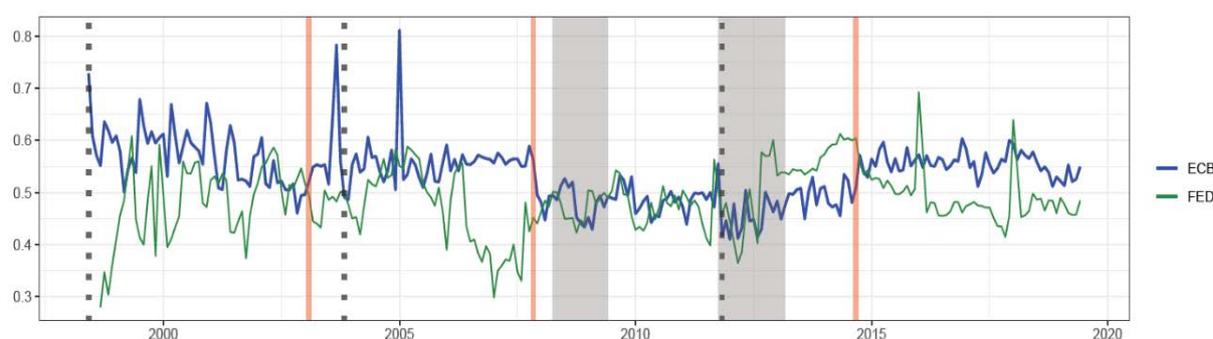
5.1. Communication of policy decision: generally effective

First, we turn to empirical evidence on regular communication tools that accompany the Governing Council's policy decisions. The bulk of empirical analyses in this line of literature carries out event studies to identify the new content of the information communicated by central bank, which makes it possible to measure the unanticipated part of the policy decision. In most papers, surprises are measured as the deviation between the announced policy decision and the expected decision of market participants using survey data on key interest rates or intraday tick data on policy rate futures around the time the policy is announced.

Overall, empirical evidence suggests that ECB announcements of monetary policy decisions have a significant impact on euro area interest rates at all maturities (Brand et al., 2006; Ehrmann and Fratzscher, 2003). A detailed analysis by Ehrmann and Fratzscher (2007a) distinguishes between the effectiveness of the ECB's press statements and press conferences, which takes place 45 minutes after the publication of the statement. They find that ECB press conferences often move interest rates more than the actual policy statement. Their findings suggest that press conferences are particularly effective in times of high macroeconomic uncertainty, when market participants actively seek advice from national institutions or central banks.

The tone and clarity of ECB policy statements determine its effectiveness (Coenen et al., 2017; Schmeling and Wagner, 2019). In line with the empirical evidence for the statements of the Federal Open Market Committee (FOMC) (Jansen, 2011) and the Bank of Canada (Ehrmann and Talmi, 2019), Coenen et al. (2017) note that ECB statements using more difficult language increase financial market volatility. Schmeling and Wagner (2019) construct a certain degree of tone for the ECB's introductory explanations by using natural language processing techniques and a financial dictionary developed by Loughran and McDonald (2011) to identify negative words. Announcements that are predominantly negative lead to persistently lower stock returns than positive statements.

Figure 5: Perceived dominance of Fed and ECB policy statements



Note: The dominance series for the ECB (blue line) and the Fed (green line). Vertical dotted lines indicate beginnings of ECB presidencies (Duisenberg: 1998, Trichet: 2003, Draghi: 2011). Red vertical lines indicate break dates in the ECB's series resulting from a break point test. The shaded areas mark euro area recession periods.

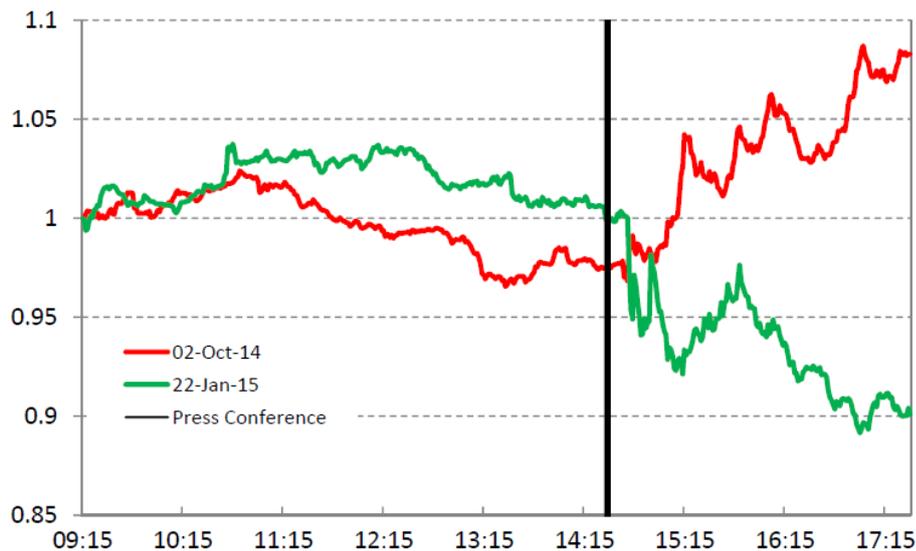
Source: Buechel et al. (2019).

Using natural language processing techniques, Buechel et al. (2019) estimate the degree of valence (pleasure/displeasure), excitement (calmness/excitement), and dominance (being in control of a situation) conveyed by the introductory statements of the ECB. The study shows that, firstly, there is an affective content of the ECB's introductory statement and that this content has changed over time depending not just on the economic situation, but also on the presidency of the ECB. In particular, the expression of dominance, i.e. how much the reader perceives control or loss of control, varies considerably over time (Figure 5). In this context, the degree of control conveyed has decreased during the great financial crisis (GFC), but has gradually increased again since Mario Draghi took office. In view of the fact that it is generally assumed that official statements of central bankers should avoid emotional formulations in order to increase clarity and credibility, this development is to be assessed positively.

At present, the scientific discourse on central bank communication raises the question of whether political announcements are perceived as monetary policy surprises or as information surprises. Imagine that the central bank announces a cut in the key interest rate and market participants perceive this as a monetary policy surprise (e.g. the extent of the decided cut in the key interest rate exceeds their expectations). The expected economic outlook of market participants would then improve. However, market participants may also interpret the cut in the key interest rate as a signal of deteriorating economic development. In this case, market participants revise their economic outlook downwards, although the central bank intended an expansionary stimulus. Recent empirical evidence suggests that, on average, the ECB's monetary policy announcements were at least partly perceived as information surprises (Altavilla et al., 2019; Jarociński and Karadi, 2020; Jung and Uhlig, 2019; Kim and Others, 2019). The existence of information shocks from policy announcements could reflect a deficit in central bank communication, in particular when explaining policy decisions and their implications. At the same time, the importance of clear and comprehensive reasoning that should accompany the announcement of decisions is stressed.

5.2. Asset purchase programmes: announcing the quantity reduces uncertainty

Since 2012, the ECB has introduced various asset purchase programmes (APP) with the intention to lower long-term yields. Overall, empirical evidence suggests that the announcements of APP programmes and SMPs have had a significant impact on the yields of government bonds, especially in the southern euro area countries (Altavilla et al., 2019; Altavilla et al., 2015; Andrade et al., 2016; Ghysels et al., 2016). The impact of the announcements of these new measures on financial market volatility depends on their clarity and information content. For example, the announcements of the outright monetary transactions programme (OMT) (6 September 2012), the public sector purchase programme (PSPP) (22 January 2015), as well as the asset-backed securities purchase programme (ABSPP) (5 June 2014) have reduced financial market volatility. In contrast, as Coenen et al. (2017) show, when the third covered bond purchase programme (CBPP) (2 October 2014) was announced, volatility on the equity markets increased (Figure 6). They find that these clear market reactions seem to be related to the clarity of the statement. The announcement of purchase programmes using more complicated language increases the volatility of the stock markets. They also show that statements that do not contain information about the extent of political intervention potentially increase uncertainty.

Figure 6: Stock market volatility at specific policy announcements

Note: The lines present intraday stock market volatility of VSTOXX for two different days when policy decisions were announced. The black vertical line marks the release hour of the statement.

Source: Coenen et al. (2017).

5.3. Forward guidance

Since the main refinancing rate reached its lower bound, the ECB increasingly used forward-looking terms in their statement and put much more emphasis on informing the public about its future path of monetary policy. For the US, the UK, and Germany, some empirical evidence suggests that forward guidance was able to manage expectations in the sense that it muted the responsiveness of bond yields to macroeconomic news (Feroli et al., 2016; Swanson and Williams, 2014a, 2014b). However, the effectiveness differs across different types of forward guidance (Box 1). In particular, forward guidance that is state-dependent or time-dependent for very long-horizons is almost entirely able to mute the bond yields responsiveness to macroeconomic news (Coenen et al., 2017; Femia et al., 2013). Moreover, empirical evidence also confirms the idea of Clouse et al. (2013) that, under an APP, forward guidance should be even more effective as a running APP might signal commitment to keep interest rates low for a longer period.

5.4. Speeches: diverging views cause uncertainty

Moreover, the ECB's strategy regarding looser and less frequent communication tools such as speeches and interviews has changed during the GFC. Before the crisis, the communication strategy regarding statements and speeches by individual members of the Governing Council was mostly collegial. The content of the individual speeches and interviews was mainly consistent with the political rationale of the joint statements of the Governing Council (Ehrmann and Fratzscher, 2007b). Since the crisis, the ECB's one-vote communication strategy has been severely challenged as members of the Governing Council have shown considerable disagreement on policy decisions (Blinder et al., 2017). The study by Tillmann and Walter (2019) shows that the disagreement between the ECB and the Bundesbank since 2008 has increased uncertainty about monetary policy. Although the publication of minutes may have cushioned the impact of public disagreements between euro area governors, a continuation of the different tones could undermine credibility and increase market uncertainty in the future.

Box 1: Types of forward guidance**Forward Guidance**

Generally, there are two forms of the communication about the future path of monetary policy, the so-called *forward guidance*.

Odyssean forward guidance

This form of forward guidance contains a commitment to a future conduct of monetary policy. Thereby, the central bank announces a state-contingent plan and follows this plan even if a change of economic developments would require a reconsideration of policies. Odyssean forward guidance is expected to be a powerful instrument of monetary policy.

Delphic forward guidance

When the central bank uses Delphic forward guidance, it communicates its predicted path of monetary policy actions that may be re-optimised if underlying conditions change. This form of forward guidance is expected to yield much smaller effects than its Odyssean counterpart.

In practice, it is hard to exactly distinguish whether central bank statements contain purely Odyssean or Delphic forward guidance. However, signals about the timing of future monetary policy might signal the central banks degree and particular condition with regard to commitment.

Open-Ended Forward Guidance

This is a form of forward guidance that attaches no condition to the expected future path of policy and is rather a Delphic form of forward guidance. Therefore, it should yield rather small effects. An example would be the following sentence: 'We expect the key ECB interest rates to remain at present or lower levels for an extended period of time.' (Statement from 21 January 2016).

Time-Dependent Forward Guidance

This form of forward guidance communicates the future path monetary policy actions conditional on a specific calendar time. An example would be the following sentence from the introductory statement of the ECB on 13 December 2018: 'We continue to expect them to remain at their present levels at least through the summer of 2019, and in any case for as long as necessary to ensure the continued sustained convergence of inflation to levels that are below, but close to, 2 % over the medium term.'

State-Dependent Forward Guidance

State-dependent forward guidance conveys the prospect of future changes to monetary policy conditional on certain economic developments. This form is the closest to Odyssean forward guidance. For example, in its statement on 12 December 2012, the FOMC announced that 'the Committee ... currently anticipates that this exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above 6-1/2 %...'

Source: Coenen et al. (2017), ECB, Federal Reserve.

6. CHALLENGES FOR THE ECB'S COMMUNICATION STRATEGY IN THE FUTURE

In the following, we will review the ECB's communication strategy along the five transparency aspects defined by Geraats (2002) and will assess in which category we see challenges and scope for improvement.

Political transparency

The TFEU assigns two main mandates to the ECB: the primary mandate of price stability and a subordinate mandate to support other economic policies, such as balanced growth and unemployment. The ECB has translated its abstract mandate into a much more concrete monetary policy strategy and advocates this strategy transparently. However, in some aspects, the current formulation of policy objectives in the ECB's strategy is rather unclear. Quantitative targets for employment rates or the output gap are lacking, but, as discussed in Section 3.1, there are good economic arguments why assigning a clear quantitative target to real economic variables is problematic and not advisable. In a monetary union, where Member States pursue their independent economic policies, the formulation of quantitative targets for output or unemployment may be even more problematic given the different preferences. Nevertheless, we see some scope for increasing policy transparency with regard to the ECB's objectives. Given the Eurosystem's subordinate mandate to also support the real economy, this should be adequately reflected in the ECB's strategy.

In addition, there is also room for improvement in the communication of the ECB's mandate for price stability. In the course of its last strategic review in 2003, the ECB changed the definition of its inflation target from 'below 2 %...'⁵ to '... below but close to 2 %'. This adjustment aimed to clarify the admissible target range below which the ECB would pursue its objective of price stability (Gali et al., 2004). In the past years, the ECB has consistently missed its inflation target, which has deteriorated the ECB's credibility and has started a public debate, whether long-run inflation expectations are de-anchored (Dany-Knedlik and Holtemöller, 2017; Nautz et al., 2017). Some doubts about its credibility could be due to the vague formulation of the target area. The central banks of Canada and New Zealand define their inflation target by means of a point target and permissible inflation bands, thus avoiding confusion about the size of the permissible deviations, while at the same time taking into account the uncertainty of inflation forecasts. *In its ongoing strategic review, the ECB should consider setting an explicit inflation target band in addition to the 2 % point target to clarify what deviations from the inflation target are permissible.*

In the course of the GFC and the crisis in the euro area, the ECB took over many other responsibilities in addition to its original mandates. In particular, the ECB's engagement regarding banking supervision has intensified substantially since 2014, when the ECB became the supreme banking supervisory authority in the euro area through the Single Supervisory Mechanism (SSM). In addition, the ECB became part of the so-called 'Troika', a decision-making group set up jointly with the European Commission and the IMF to negotiate the conditionality of member states' bailout programmes. The enlarged number of the ECB's tasks gives rise to several concerns. It is not entirely clear whether and, if so, how the ECB views the interaction between macro-prudential policy and monetary policy, particularly with regard to its monetary policy strategy. Moreover, it is not clear how these new responsibilities interact with the ECB's original primary mandate of price stability. This makes it difficult to formulate the entire and explicit set of objectives against which the public could assess the Eurosystem's performance, thus hindering democratic accountability. *Therefore, in view of its new tasks*

⁵ https://www.ecb.europa.eu/press/pr/date/1998/html/pr981013_1.en.html

and responsibilities, the ECB should clearly communicate its objectives and clarify the interactions between its supervisory functions and its primary mandate of price stability in order to return to the pre-crisis level of political transparency.

Economic transparency

As long as the information published does not conflict with its constitutional obligations, the ECB is very transparent in informing the public about its own economic assessments underlying its monetary policy decisions. *However, to avoid having the ECB's information supplant the public's own assessment of the economic environment, it is important that the ECB clearly communicates that the theoretical models used for its assessment represent reality always only approximately and that there always exist uncertainty with respect to measurement of economic variables and with monetary policy transmission. This would also prevent that the ECB loses credibility in the event of deviations from monetary policy objectives.*

With regard to the analysis underlying its banking supervision, the ECB's communication is less open and sometimes patchy. In line with the requirements set out in the CRD IV, the ECB, in its capacity as banking supervisor, publishes relevant information on the laws, regulations, administrative provisions, and guidelines. It also publishes information on general criteria and methodologies used in its supervisory review and assessment processes, as well as aggregate statistical data on key aspects of the implementation of its supervisory framework, including the number and type of supervisory measures taken and administrative sanctions imposed. Moreover, twice a year, the ECB publishes its Financial Stability Report to provide an overview of potential risks to financial stability in the euro area.

However, despite this wealth of information provided, the supervisory authority is relatively opaque when it comes to information on individual financial institutions. For instance, the proceedings of the SSM decision-making board are not published. So far, the ECB only delivers a summary of proceedings to the European Parliament of Supervisory Board meetings. There are good reasons for this secrecy. First, it could be very risky to publish in advance signals about potential problems in parts of the financial system, as such disclosure could trigger a run on the banks or other unpredictable movements in the financial markets. Second, there are also requirements of professional concealment, which is why the ECB must refuse to disclose information about specific banks. *Nevertheless, to increase accountability and transparency, the ECB should consider at some stage to release the minutes of the SSM Supervisory Board with appropriate time lag and redacting overly sensitive parts.*

Procedural transparency

In international comparisons, the ECB scores relatively low in terms of procedural transparency (Dincer et al., 2019). The main reason is that the ECB did not publish minutes until 2015, something the world's other major central banks have done since the 1990s. Since the ECB started publishing accounts of its monetary policy meetings, it has improved its procedural transparency slightly. Although these minutes contain useful information about the Governing Council's evaluations of the monetary policy options and the economic outlook, the minutes lack details about the actual discussions and the associated voting records of each Committee member. As such, the ECB's published minutes are less transparent than those of the Fed, the Bank of England, and the Bank of Japan. However, given the political structure of the European Monetary Union along with the composition and procedural design of the Governing Council, it is not advisable to reveal individual voting and/or transcripts for the reasons highlighted in Section 4.3.

As long as national governments appoint members of the Governing Council, the ECB should only publish anonymous voting results and minutes that do not specify the contributions of individual council members, thus protecting the independence of national central bankers from national political interests and incentives.

Policy transparency

Generally, the ECB's pre-planned press releases and conferences have made its policy decisions transparent. In the context of the low interest rate environment since the GFC, political communication, in general, and forward looking content, in particular, has become even more relevant to market participants. In response, the ECB has integrated forward guidance not just with respect to the expected path of interest rates but also the expected duration and depth of asset purchasing programs into the policy statements.

There seems to be a consensus that the rapid announcement of key rate decisions has positive macroeconomic effects in the sense that it reduces the variability of inflation and output. However, there is less consensus on whether transparency with regard to *unconventional* monetary policy measures, such as forward guidance and asset purchase programmes, is beneficial or – in the latter case – even illegal. Forward guidance appears to be a promising communication tool to steer market expectations as well as medium- to long-term yields. Empirical evidence shows that, in particular, forward guidance that attaches future policy actions to a specific state of the economic outlook and forward guidance that conditions future policy actions to specific calendar dates in the very long future are very effective. However, it also carries the risk of giving the impression that the central bank can overcome uncertainty regarding the economic environment and monetary policy transmission to which it is itself exposed. If communication about future monetary policy decisions is vague, the value of this information is negligible. If the communication is assertive and approaches an unconditional commitment, the central bank loses credibility when new data or a new assessment of the economic environment force it to revise its earlier communication and change its monetary policy stance. *Thus, it is essential that the ECB communicates clearly to the public that any forward looking assessment of expected policy decisions depends on current information and, therefore, is subject to change.*

The ECB's communication on APPs is partly opaque. For example, while the ECB has announced in the latter case the amount of bonds it will buy each month, it has refrained from announcing in advance exactly which bonds it will purchase. The explanation for this secrecy is that there are legal obstacles. Under Article 123(1) TFEU, direct monetary financing by the central bank is prohibited. For this reason, the European Monetary Authority has repeatedly clarified that there is a 'black-out' period between the issuance of a bond and the purchase by the ECB on the secondary market in order to allow an undistorted market price to settle and to maintain market discipline. Another example is the SMP, under which no information on the volume or on detailed modalities and data regarding purchase quantities were published until the program ended. In this case, the withholding of information was necessary to ensure functionality of the instrument and to prevent market participants from exploiting predictable trading strategies (Ghysels et al., 2016). In other cases, the ECB has simply not been very clear and transparent in its policy announcements at the cost of market volatility or reduced effectiveness (see Section 5.2). In particular, announcements of asset purchases programs that did not contain the size of the program have been less effective or have even increased market volatility.

In sum, the transparency of the ECB's monetary policy has increased in recent years. *The level of transparency with respect to the unconventional policy measures was overall adequate, taking into account that, in some cases, complete information could not be provided for either economic reasons and/or legal reasons.* It is increasingly evident that the clarity of the announcements is crucial for the effectiveness of the policy statements. In return, unclear or vague policy communication can induce market uncertainty. *Furthermore, it is also important that the information content of speeches by individual Governing Council members does not deviate too much from the ECB's official position, as this carries the risk of creating market uncertainties.*

Operational transparency

For the ECB, the Annual Report is its main communication tool for reporting to the public and assessing those policies currently implemented. In addition, the ECB meets on a regular basis with the Members of the European Parliament. Since 1999, the structure and content of the annual report has not changed substantially, covering the economic and financial markets development of the previous year, explaining monetary decisions, and providing information on some internal activities of the central bank. Although the reports and the associated public hearings before the European Parliament provide the basis for operational transparency, there is not a detailed assessment of the impact of monetary policy instruments and only little justification for the achievement of, or deviation from, monetary policy objectives. *However, an explicit assessment of monetary policy outcomes, including not just the effectiveness of the instruments used but also identifying a priori unexpected shocks, potentially enhances the credibility of the central bank.* For the ECB, this could be relevant at the current juncture, as inflation expectations remain at low levels despite its intensified policy efforts in recent years.

7. CONCLUSIONS

The new ECB Presidency and the ongoing strategy review is an opportunity for the ECB to improve and refocus its monetary policy strategy in the light of changing economic and financial conditions and new challenges. In this context, given its central role in public accountability and in the formation of expectations, it is also important to reflect on ways to improve the ECB's communication policy.

In general, we have worked out that central bank communication should not strive for maximum transparency. The optimum degree of transparency varies between different aspects of monetary policy. The reasons for a certain lack of transparency in central bank communication include legal constraints, uncertainties about the reliability of economic data and modelling results, as well that this information could pose a threat to financial stability.

Although the ECB already communicates very openly with the public and achieves a very high level of transparency in all aspects, including international comparisons, we see room for improvement in its communication strategy in several respects. First, the ECB should consider reformulating its definition of price stability. Given the uncertainty about future inflation developments and the imperfect controllability of inflation, an explicit announcement of an admissible target range for inflation in addition to a point target has the advantage of not giving the impression that monetary policy is capable of achieving the inflation target with a high degree of precision.

Second, since the GFC and the crisis in the euro area the ECB faces additional responsibilities. This new set of tasks make it more difficult to delineate the ECB's mandate across these fields, e.g. the separation of monetary and supervisory functions. Clarifying the interaction between its supervisory activities and monetary policy under the current mandate would preserve the pre-crisis level of political transparency.

Third, the more open the ECB gets, the more important it becomes that it communicate clearly to the public that it is operating under considerable uncertainty, so that deviations from monetary objectives can be properly assessed without a gradual loss in confidence.

Fourth, the ECB is relatively opaque with respect to its supervisory responsibilities. Since the ECB has only recently taken up this function, it has had little opportunity to build up a reputation in this field. Against this background, transparency in the area of financial supervision is even more important. In order to increase accountability, the ECB should at some point consider publishing the minutes of the SSM Supervisory Board with appropriate time lag and redacting overly sensitive parts.

Fifth, to avoid unnecessary market volatility and uncertainty, the information content of speeches by individual Governing Council members should, as far as possible, be aligned with the ECB's official position. In addition, official statements by central bankers should refrain from using emotional formulations as far as possible in order to increase clarity and credibility,

Finally, the ECB should improve on its operational transparency with regard to one of its most important communication tools, the Annual Report. Faced with inflation, which has been most of the time below the inflation target since 2009, the ECB is surprisingly reluctant to provide a detailed assessment explaining why the policy outcome is not as intended despite increased policy efforts. More transparency in this respect is essential to maintain the ECB's credibility.

REFERENCES

- Altavilla, C., Brugnolini, L., Gürkaynak, R. S., Motto, R., and Ragusa, G. (2019). Measuring euro area monetary policy. *Journal of Monetary Economics*. 108, 162-179.
- Altavilla, C., Carboni, G., and Motto, R. (2015). Asset purchase programmes and financial markets: lessons from the euro area. ECB Working Paper, No. 1864.
- Andrade, P., Breckenfelder, J., De Fiore, F., Karadi, P., and Tristani, O. (2016). The ECB's asset purchase programme: an early assessment. ECB Working Paper No. 1956.
- Blanchard, O. (2006). Monetary policy: science or art? Paper presented for an ECB Colloquium held in honour of Otmar Issing.
- Blinder, A., Ehrmann, M., De Haan, J., and Jansen, D. J. (2017). Necessity as the mother of invention: Monetary policy after the crisis. *Economic Policy*. 32(92), 707-755.
- Blinder, A. S., Ehrmann, M., Fratzscher, M., de Haan, J., and Jansen, D.J. (2008): Central Bank Communication and Monetary Policy: A Survey of Theory and Evidence. *Journal of Economic Literature*. 46, 910-45.
- Brand, C., Buncic, D., and Turunen, J. (2010). The impact of ECB monetary policy decisions and communication on the yield curve. *Journal of the European Economic Association*. 8(6), 1266-1298.
- Buechel, S., Junker, S., Schlaak, T., Michelsen, C., and Hahn, U. (2019). A Time Series Analysis of Emotional Loading in Central Bank Statements. In Proceedings of the Second Workshop on Economics and Natural Language Processing. 16-21.
- Clouse, J., Henderson, D., Orphanides, A., Small, D., and Tinsley, P. (2003). Monetary policy when the nominal short-term interest rate is zero. *BE Press Journal of Macroeconomics: Topics in Macroeconomics*. 3(1).
- Coenen, G., Ehrmann, M., Gaballo, G., Hoffmann, P., Nakov, A., Nardelli, S., Persson, E., and Strasser, G. (2017). Communication of monetary policy in unconventional times. ECB Working Paper No. 2080.
- Crowe, C., and Meade, E. (2008). Central bank independence and transparency: Evolution and effectiveness. *European Journal of Political Economy*. 24(4), 763-777.
- Cukierman, A. (2009). The Limits of Transparency. *Economic Notes*. 38, 1-37.
- Dany-Knedlik, G., and Holtemöller, O. (2017). Inflation dynamics during the financial crisis in Europe: Cross-sectional identification of long-run inflation expectations. IWH Discussion Papers No. 10/2017.
- Dincer, N., Eichengreen, B., and Geraats, P. (2019). Transparency of Monetary Policy in the Postcrisis World. *The Oxford Handbook of the Economics of Central Banking*, 287.
- ECB (2016): "A guide to the Eurosystem/ECB staff macroeconomic projection exercises", <https://www.ecb.europa.eu/pub/pdf/other/staffprojectionsguide201607.en.pdf>.
- Ehrmann, M., and Fratzscher, M. (2007a). Explaining Monetary Policy Decisions in Press Conferences. ECB Working Paper No. 767.
- Ehrmann, M., and Fratzscher, M. (2007b). Communication by Central Bank Committee Members: Different Strategies, Same Effectiveness?. *Journal of Money, Credit, and Banking*, 39(2-3), 509-41.

- Ehrmann, M., & Fratzscher, M. (2003). Monetary policy announcements and money markets: A transatlantic perspective. *International Finance*. 6(3), 309-328.
- Ehrmann, M., and Talmi, J. (2019). Starting from a blank page? Semantic similarity in central bank communication and market volatility. *Journal of Monetary Economics*. *forthcoming*.
- Femia, K., Friedman, S. and Sack B. (2013). The effects of policy guidance on perceptions of the Fed's reaction function. New York Fed Staff Report 652.
- Feroli, M., Greenlaw, D., Hooper, P., Mishkin, F., and Sufi, A. (2017). Language after liftoff: Fed communication away from the zero lower bound. *Research in Economics*. 71(3), 452-490.
- Galí, J., Gertler, S., Rotemberg, J., Woodford, M., and Uhlig, H. (2004). *The monetary policy strategy of the ECB reconsidered* (Vol. 5). Centre for Economic Policy Research.
- Geraats, P. M., (2002). Central bank transparency. *The Economic Journal* 112, pp.532-565.
- Gersbach, H., and Hahn, V. (2009). Voting Transparency in a Monetary Union. *Journal of Money, Credit, and Banking*. 41(5), 809-830.
- Ghysels, E., Idier, J., Manganelli, S., and Vergote, O. (2017). A high-frequency assessment of the ECB Securities Markets Programme. *Journal of the European Economic Association*. 15(1), 218-243.
- Issing, O. (1999). The Eurosystem: Transparent and Accountable, or 'Willem in Euroland'. *Journal of Common Market Studies*. 37, pp. 503-519.
- Jansen, D. (2011). Does the clarity of central bank communication affect volatility in financial markets? Evidence from Humphrey-Hawkins testimonies. *Contemporary Economic Policy*. 29 (4), 494-509.
- Jarocinski, M., and Karadi, P. (2020). Deconstructing monetary policy surprises: the role of information shocks. *AEJ: Macroeconomics*. *forthcoming*.
- Jensen, H. (2002). Optimal degrees of transparency in monetary policymaking. *Scandinavian Journal of Economics*. 104, 399-422.
- Jung, A. and Uhlig, H. (2019). Monetary Policy Shocks and the Health of Banks. ECB Working Paper No. 2303.
- Kim, C. and Oster, L. (2019). The Short-Run Effect of Monetary Policy Shocks on Credit Risk: An Analysis of the Euro Area. DIW Discussion Papers, No. 1781.
- Loughran, T., and McDonald, B. (2011). When is a liability not a liability? Textual analysis, dictionaries, and 10-Ks. *The Journal of Finance*. 66(1), 35-65.
- Morris, S., and Shin, H. S. (2002). Social Value of Public Information. *American Economic Review*. 92, 1521-1534.
- Nautz, D., Pagenhardt, L., and Strohsal, T. (2017). The (de-) anchoring of inflation expectations: New evidence from the euro area. *The North American Journal of Economics and Finance*. 40, 103-115.
- Orphanides, A. (2001). Monetary Policy Rules Based on Real-Time Data. *American Economic Review*. 91, 964-85.
- Schmeling, M., and Wagner, C. (2019). Does Central Bank Tone Move Asset Prices?. CEPR Discussion Papers No. 13490.

- Swanson, E., and Williams, J. (2014a). Measuring the effect of the zero lower bound on medium- and longer-term interest rates *American Economic Review*. 104 (10), 3154-3185.
- Swanson, E., and Williams, J. (2014b). Measuring the effect of the zero lower bound on yields and exchange rates in the U.K. and Germany. *Journal of International Economics*. 92, Supplement 1, S2-S21.
- Tillmann, P., and Walter, A. (2019). The effect of diverging communication: The case of the ECB and the Bundesbank. *Economics Letters*. 176, 68-74.
- Walsh, C. E. (2017). Discretionary Policy and Time Inconsistency. In *Monetary Theory and Policy*, Cambridge and London, MIT Press, 4th edition.
- Woodford, M. (2005). Central-Bank Communication and Policy Effectiveness. In *The Greenspan Era: Lessons for the Future*. Kansas City: Federal Reserve Bank of Kansas City, 399-474.

Given its central role in public accountability and in the formation of expectations, it is important to reflect on ways to improve the ECB's communication policy. Communication should not generally strive for maximum transparency. The optimum degree of transparency varies between different aspects of monetary policy and banking supervision. Although the ECB already communicates very openly with the public and achieves a very high level of transparency in all aspects, we see room for improvement in its communication strategy in several respects.

This document was provided by Policy Department A at the request of the Committee on Economic and Monetary Affairs.
