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Abstract

The days when secrecy and opacity were the bywords of central banking are gone. The advent of inflation targeting in the early 1990s acted as the catalyst for enhanced transparency and communications in the conduct of monetary policy. In the wake of the 2007-09 global financial crisis, this trend accelerated, resulting in further striking advances in monetary policy and financial stability communications, including markedly the emergence of extraordinary forward guidance as a distinct policy tool under unconventional monetary policies.

Drawing on the record to-date at major central banks, as well as on a growing body of related academic literature, this paper reviews the history and effectiveness of central bank communications before and especially since the crisis. It also highlights some of the challenges facing central banks, particularly those that have engaged heavily in unconventional monetary policies to support their economies since the crisis. Steering deftly a course back to normality will depend crucially on their ability to communicate effectively a credible strategy for an orderly exit from such policies. In this context, clear, deliberate, coordinated messages that are anchored in their mandate are of the essence.

JEL classification: E52, E58
Bank classification: Central bank research; Credibility; Financial stability; Inflation targets; Monetary policy framework; Monetary policy implementation

Résumé

L’époque où les banques centrales agissaient en secret et dans l’opacité est révolue. L’adoption de cibles d’inflation au début des années 1990 a eu pour effet d’accroître la transparence et l’importance des communications dans la conduite de la politique monétaire. Au lendemain de la crise financière mondiale survenue en 2007-2009, cette tendance s’est accélérée, donnant lieu à d’autres avancées remarquables dans le domaine des communications relatives à la politique monétaire et à la stabilité financière, notamment à l’apparition d’un nouvel outil dans la panoplie des politiques monétaires non traditionnelles, à savoir la communication d'indications prospectives extraordinaires.

En s’inspirant du chemin parcouru jusqu’ici par les grandes banques centrales et du nombre grandissant de travaux sur le sujet, la présente étude examine l’histoire et l’efficacité des communications des banques centrales avant la crise et surtout depuis celle-ci. Elle met aussi en lumière certains des défis auxquels sont confrontées les banques centrales, en particulier celles qui ont fait largement appel à des mesures de politique monétaire non traditionnelles pour soutenir l’économie depuis la crise. Un retour à la normale réussi ne sera possible que si les banques centrales parviennent à communiquer efficacement une stratégie crédible de retrait ordonné des mesures exceptionnelles mises en œuvre. Dans ce contexte, des messages limpides, diffusés de

manière délibérée et coordonnée et s'inscrivant clairement dans le mandat des banques centrales sont essentiels.

Classification JEL : E52, E58
Classification de la Banque : Recherches menées par les banques centrales; Crédibilité; Stabilité financière; Cibles en matière d'inflation; Cadre de la politique monétaire; Mise en œuvre de la politique monétaire

"Transparency is an asset that depreciates very rapidly, so communication has to be ongoing, and if it is to enhance accountability, it must be a two-way process as well." D.Laidler

1. INTRODUCTION

Gone are the days when secrecy and opacity were the bywords of central banking. Over the past two decades, there has been a dramatic change in the way central banks view the role of transparency and communications in the conduct of monetary policy. And since the global financial crisis, there has been nothing short of a 'revolution' in the use of central bank communications as a distinct policy tool under unconventional monetary policies. Furthermore, with many central banks now playing a role in promoting financial stability, questions about the extent of transparency in communications on financial risks and vulnerabilities have also been the focus of attention and debate.

This paper briefly reviews the history of central bank communications before the crisis, and then focuses more closely on the remarkable changes that have taken place in monetary and financial stability communications since the crisis. Drawing on the record to date at the Bank of Canada and at other major central banks,[1] as well as on a growing body of related academic literature, it discusses the comparative effectiveness of the various communication approaches adopted by central banks before, and especially since, the crisis. It also highlights some of the communication challenges facing central banks in a post-crisis world of close interaction between monetary and financial stability and expanded central bank activities under unconventional monetary policies. Such activities have intensified demands on central banks for enhanced accountability and transparency, and for clear, effective communications.

2. CENTRAL BANK COMMUNICATIONS BEFORE THE 2007–09 GLOBAL FINANCIAL CRISIS

2.1 Monetary policy communications

2.1.1 From secrecy and opacity to openness and transparency

To fully appreciate the sea change in the role of central bank communications in recent decades, we need only to recall that for the better part of the twentieth century central bank goals and actions were cloaked in (mostly unnecessary) secrecy.[2]

Central banks, including the Bank of Canada (BoC), said little publicly to explain what they were up to and why. With multiple monetary policy objectives and instruments, policy actions were generally not predictable. So the view among central banks was that it was best not to talk about policy actions—let alone future policy intentions—and let these actions speak for

[1] With very few exceptions, the discussion in this paper is focused on the communication practices of major central banks in advanced economies.

[2] In concluding his critique of the arguments for central bank secrecy, Goodfriend (1986) says: "Given the inconclusiveness of the theoretical arguments and the presumption that government secrecy is inconsistent with the healthy functioning of an economy, further work is required to demonstrate that central bank secrecy is socially beneficial."

themselves. Furthermore, the conventional wisdom was that financial markets needed to be 'surprised' if monetary policy was to be more effective.[3]

Without a clear monetary policy framework and without a well-defined basis for evaluating their performance, central banks were less open to scrutiny and public accountability. This opacity regarding monetary policy decisions was inconsistent with the openness expected of government operations in a democracy.

In a ground-breaking paper, Canadian researchers Acheson and Chant (1973) challenged the prevailing central bank view that it was best to say nothing. Through the 1980s, the literature accumulated on how to ensure a credible pre-commitment to a clear, sound monetary policy objective (rather than chasing after multiple tenuous goals), and the importance of transparency and working with the markets, rather than against them, was progressively recognized.

These developments motivated central banks to look for a clearer policy framework that would focus on the single goal of controlling inflation through a single instrument—the policy rate—and provide some scope for choosing a suitable horizon to return inflation to target after a shock, thus minimizing fluctuations in output. Inflation targeting (IT) with floating exchange rates emerged as the new monetary policy framework of choice.

In 1990, the Reserve Bank of New Zealand (RBNZ) became the first central bank to adopt IT with a strong emphasis on transparency. In Canada, the move to a clearer focus on long-run price stability began in the late 1980s and culminated with the adoption of an explicit inflation-control target in 1991 (seven months after New Zealand). Over the next two decades or so, other central banks in advanced, emerging and developing economies followed suit, bringing the total number of full-fledged inflation targeters to 28 by early 2013.[4]

2.1.2 The importance of communications for monetary policy

Fundamental changes in the conduct of monetary policy under an IT regime provided the main impetus to the broad trend among central banks toward greater openness, transparency and accountability, all of which require proactive, well-planned communications.[5]

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[3] Chant (2003) suggests that the secrecy surrounding monetary policy during this period was also a reflection of the prevailing fixed exchange rates, which he calls "an enemy of openness."

[4] Including the Bank of Japan, but not the U.S. Federal Reserve. Although the latter adopted a 2 per cent longer-run inflation goal in January 2012 and embraced most of the features of flexible IT, it is not a full-fledged inflation targeter, given its legal dual mandate of price stability and maximum employment.

[5] Although the move to transparency was more pronounced among IT central banks, other central banks, including in emerging-market economies, increasingly came to recognize the value of openness and communications in the conduct of monetary policy, as exemplified by the experience of inflation targeters. Thus, in describing how the Reserve Bank of India (a non-inflation targeter) approaches monetary policy, former Governor Duvvuri Subbarao said in 2011: "When it comes to policy, we carefully weigh the options and, once we have made a choice, we deliberate on what to say and how to say it."

Indeed, it was quickly recognized that a credible commitment to an explicit numerical inflation target also meant a commitment to communicate clearly what monetary policy is trying to achieve, how it will achieve it, how economic conditions have changed and, importantly, to relate policy actions to the inflation target and to the national economic well-being. In Canada, the move to greater transparency and enhanced communications was championed by former Governor Gordon Thiessen[6] and enthusiastically taken up and augmented by his successors.

Good communications are the means to enhanced transparency which, in turn, improves the effectiveness of monetary policy, underpins central bank accountability in a democratic society and bolsters the credibility of a central bank.

How do communications enhance the effectiveness of monetary policy? Jenkins (2001) explains that good communications help put the central bank and financial markets on the same wavelength, so that "markets can anticipate, rather than simply react to, interest rate decisions." If markets understand the objective of policy and the tools to achieve it, and if they have a clear reading of the central bank's view of the economy, then the transmission mechanism should work more smoothly, leading to "responses in the exchange rate and in the term structure of interest rates that are more consistent with the Bank's intentions." Monetary policy will also be more effective if the public, too, understands the factors affecting inflation and the central bank's assessment of, and response, to those factors.

In all of this, the critical task is clearly to promote public understanding of what the central bank is trying to accomplish and to 'shape' the expectations and behaviour of economic agents, thus helping the authorities to achieve the inflation target and keep the economy growing at a solid pace.

Seen in this light, points out Jenkins, effective communications are "a vital component of the monetary policy process," aiming to keep the public and the markets well-informed, so that central banks can realize the benefits of well-anchored inflation expectations in the conduct of monetary policy.

2.1.3 Transparency and accountability under inflation targeting: challenges for communications

Recognizing the importance of good communications in the conduct of monetary policy does not mean that the task of communicating clearly and effectively is straightforward. Indeed, the greater focus on transparency and accountability under IT has presented monetary authorities with several communication challenges.[7]

To begin with, the fundamental premise that low inflation is the best contribution monetary policy can make to the national economic welfare is not necessarily an intuitive concept.

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[6] As documented in several of his speeches and in his lectures—the latter compiled in Bank of Canada (2001).

[7] This is not to say that non-inflation-targeting central banks do not face communication challenges, but rather to emphasize that inflation targeters have an even greater incentive to work hard to overcome these challenges, knowing that the effectiveness of monetary policy under IT depends importantly on how successful their communication efforts are.

Indeed, it requires elaboration and repetition, not just in the early years of inflation targeting but also over time, as the memories of the economic ills wrought by high inflation fade. The main defining characteristics of IT—symmetry, forward-looking nature and flexibility—also require systematic communication efforts to underscore the value of these elements of an effective and credible monetary policy framework.

Central banks are sometimes seen as inflation 'nutters,' that is, singularly focused on keeping inflation low and not nearly as worried about the real economy. For this reason, IT central banks consistently remind people that low inflation is not an end in itself, but rather the means to an end—the achievement of solid, sustained growth in output, employment and incomes over time. IT central banks also use the ***symmetric*** feature of the IT framework to address public concerns about the real economy and to communicate their strong commitment to policy action to avoid both the risk of significant inflation and deflation over the medium term.

Another important challenge for communications stems from the medium-term framework of monetary policy and thus ***the forward-looking nature of inflation targeting***. To make informed economic decisions, the public needs to understand and to take into account the lags in monetary policy—the time that it takes for policy actions to have their full effects on the economy and inflation, usually six to eight quarters. The problem is that there is a tendency among the public to view policy actions as a response to current conditions (e.g., the present rate of inflation) rather than to medium-term trends and objective(s). Thus, the task for communications is to address this issue by driving home that monetary policy has a medium-term orientation. Adding to this challenge is the fact that assessing future economic trends is not an exact science, and because there is always some uncertainty about these trends, communications about the future are often expressed in conditional terms. Furthermore, if the outlook is clouded by uncertainties, it is nearly impossible for the central bank to provide the markets and the public with a high degree of precision and certainty.

Closely related to the above concern, although also relevant more broadly, is the issue of how best to ensure value in what the central bank communicates. Fundamentally, this comes down to focusing on the *quality* rather than the *quantity* of communications. With specific reference to the medium-term framework of monetary policy, the central bank can provide value by communicating what it sees as the key trends in the economy and inflation and how monetary policy relates to these trends. It should not comment on every item of new data that becomes available, since it is the accumulation of such information that gives proper understanding to these trends. By providing its view on the broader trends in the economy, the central bank can help people anticipate the direction of monetary policy.

Importantly, central banks must also explain to the public that, under IT, monetary policy is not on automatic pilot and that policy-makers do not follow a rigid rule in setting interest rates. While there is a 'constraint,' in the form of a clear objective—keeping inflation at 2 per cent—and a medium-term horizon of six to eight quarters over which to achieve it, there is also some 'discretion' in responding to economic developments. Because IT is forward looking, the central bank has to assess all available information to come to a judgment about underlying economic

trends and their implications for future inflation in order to arrive at an informed view about appropriate policy action. A system of fixed announcement dates ensures that this assessment is undertaken regularly throughout the year. All of this means that the IT framework allows policy-makers to respond with some ***flexibility*** to changing economic conditions.[8]

From a communication perspective, also of great value is a clear statement of the reasons for the policy decision. That statement is the press release announcing the interest rate decision, which is typically supplemented by the publication of a fuller report detailing the central bank's assessment of the key factors behind that decision.

Concern about the quality of the commentary provided has also influenced how central banks approach the flow of information around the announcement of policy rate decisions. Thus, many central banks, including the BoC, the U.S. Federal Reserve (Fed), the Bank of England, (BoE) and the European Central Bank (ECB) observe a 'no-comment' (blackout or purdah) period in the week before the policy decision to help mitigate unnecessary speculation. During the blackout, senior officials refrain from giving speeches and talking to the media or other outside parties about the economic outlook and the direction of monetary policy.

No less a challenge is *tailoring* messages to different key audiences and their specific concerns and information needs with respect to the economy and the direction of monetary policy.

The **general public** is typically interested in what affects its day-to-day decision-making, e.g., inflation, interest rate movements up or down, and the external value of the currency.

Financial markets, on the other hand, are keenly interested in both the direction and the intricacies of monetary policy, and tend to be highly sensitive to related central bank utterances or actions. Markets constantly dissect central bank talk for clues and 'shades' of meaning about where monetary policy may be heading. This complicates the communications task because some of the complexities and subtleties related to the direction of monetary policy cannot always be reduced to a few words (as required for a shorter statement, e.g., a press release). The challenge for the central bank thus lies in crafting messages that communicate as clearly as possible its assessment of the economy and the direction of policy, while also bearing in mind the concerns and interests of different audiences.

Particularly relevant in this regard is communication with the **media**, an audience that is instrumental in determining the success of central bank communications. Most central banks rely heavily on the media to get their key messages out to the public, be it through newspapers or magazines, television and radio, or the wire services. The media also act as a filter, deciding which central bank statements they will feature. Part of their job, too, is to 'interpret' policy

[8] This built-in flexibility of the IT system was, early on, referred to as 'constrained discretion' and was not a very prominent feature of day-to-day central bank talk. Since the crisis, however, some central banks (notably the BoC), have been more systematic in highlighting the value of *flexibility* in IT. The circumstances in which this has come about are discussed in Section 3.2.2 of this paper.

decisions, to comment on how they see the central bank fulfilling its mandate, and to reflect third-party views on what the monetary authorities say and do.

It is, therefore, vital that the media cover monetary policy as fully and accurately as possible. The chances of this happening are infinitely better if the media are well informed about monetary policy and its complexities and conditional nature. For this reason, many central banks, including the BoC, devote considerable resources to media relations. For example, they hold media briefings for key monetary policy releases and lock-ups for reporters to read and write their stories ahead of their official publication, with the added benefit of further information and clarifications received at the briefing.

2.1.4 Communication initiatives, publications and accountability mechanisms

Since the 1990s, monetary authorities around the world, and especially IT central banks, have made important strides in communications as they sought, sometimes through trial and error, to address some of the challenges noted above and to bolster transparency and accountability.

Most central banks now communicate their monetary policy framework and objectives. They also publish their analysis and projections of economic conditions, including the outlook for output and inflation, as well as the risks to that outlook. And they provide the rationale for their policy decisions, which are announced on eight or twelve fixed dates a year, representing further opportunities for the monetary authorities to give an update on the economy. So, there has been some convergence in terms of the communication initiatives of major central banks (Hammond 2012).

The main differences in communication strategy concern the extent of information revealed about the differences of opinion among decision makers, where decisions are reached by voting, and how much explicit or implicit guidance is given on the future stance of policy (see the next section).

Among inflation targeters, press releases announcing the policy rate decision and a *Monetary Policy Report* or an *Inflation Report* (typically issued four times a year) are now standard communication vehicles. Most central banks in this group also hold press conferences to explain the policy decision and present the *Report.* In most countries, the publication of the *Report* usually lags the interest rate press release by several days. To avoid the rare real or perceived tension in policy messages between those two publications, the Riksbank, the RBNZ and, as of January 2013, the BoC release them both simultaneously. Where monetary policy is determined by majority vote, minutes of the policy-setting meeting (usually with a lag of two to four weeks) are also published.

Besides promoting transparency, the above communication initiatives, together with parliamentary hearings and, in some countries (e.g., the United Kingdom, Iceland, Brazil and Turkey), an open letter in the event that inflation misses the target by a pre-specified amount, also serve as accountability mechanisms.

Central banks generally supplement the above activities with other communication events throughout the year to achieve a regular, continuous and integrated program of public communications. These events focus on two-way communication, featuring speeches, interviews and contacts with private sector economists, businesses and academics, as well as regional outreach with colleges and universities, community groups, local associations, etc.

Central bank websites have also become major communication vehicles, carrying tremendous amounts of information for general and specialized audiences. In addition to the above-mentioned publications, press releases and speeches related to monetary policy, as well as other research-based publications and statistical information (including interest and inflation calculators) are posted on the web. Short, straightforward backgrounders and animated and interactive presentations, explaining various aspects of monetary policy and other central bank functions (e.g. financial stability), are also available. Central banks with currency museums have developed materials and products for students of different ages; and those with a mandate for financial education (e.g., the Fed) provide, in addition, a wealth of information on personal finances.

With these communication efforts, increased emphasis has also been placed on *straight talk and plain language* to facilitate access to monetary policy messages by as broad a public audience as possible. In 2009, Sweden carried this effort one step further, making 'plain Swedish' the law for all public documents, including Riksbank reports. Meyersson and Karlberg (2012) summarize their thinking on the subject this way: "Citizens are entitled to know what authorities do, how decisions are made and to understand what is happening. It is quite simply a democratic right to receive information that can be understood."

In the wake of the 2007–09 crisis, the trend towards greater transparency gained momentum, leading to further important advances in monetary policy communications (see Section 3.3.1)

2.1.5 Forward-looking statements to provide policy guidance

One way transparency and communications make monetary policy more effective is by helping markets to better understand the systematic response of monetary policy to economic developments and shocks—known as the central bank's 'reaction function.' Improved understanding of the latter allows markets to better anticipate future changes in the policy interest rate. So, even though central banks have control only over short-term interest rates, they can use communications to enhance the markets' understanding of the monetary policy reaction function and, in this way, influence expectations about long-term interest rates. That is why over the years, central banks have used some type of forward-looking statement to provide policy guidance. Rudebusch (2008) identifies three main types of such guidance.[9]

- First, **indirect signals**, such as a balance-of-risk statement or a risk scenario that shows how much inflation would deviate from the target, if policy rates were held constant.

[9] These are succinctly summarized in Fay and Gravelle (2010).

- Second, **direct qualitative signals**—for example, the policy 'bias' statement used by the Fed for a short period in the late 1990s. This type of guidance can also include phrases signalling the desired policy stance over an extended period, such as those used by the Fed in 2003–06, indicating that policy accommodation "can be maintained for a considerable period" or "can be removed at a pace that is likely to be measured." The ECB's use of such code words as "strong vigilance" also belongs in this category.
- Third, **direct quantitative signals**, such as the explicit numerical projections for the policy rate published by the central banks of New Zealand, Sweden, Norway, Iceland and the Czech Republic.

The BoC, too, has used direct qualitative signals in forward-looking statements in its policy rate press releases, in its *Monetary Policy Reports* and in speeches. "Further reduction of monetary stimulus will be required . . . over the next four or six quarters," or "the current level of the target for the overnight rate is consistent with achieving the inflation target" are examples of such statements. The BoC has also used indirect signals in the form of balance-of-risk statements.[10]

There has been considerable debate within and outside central bank circles as to how much monetary authorities should reveal about their expectations for future policy rates and, in particular, whether they should publish their own projections of the policy rate. While there are several technical arguments both in favour and against publishing such forecasts, for some central banks, the decision often comes down to communication. In addition to concerns that such a path might give a false sense of precision, the question is whether markets, and especially the public, would fully appreciate the *conditional* nature of such guidance and not expect the monetary authorities to honour a perceived 'commitment' to the published policy path.

2.1.6 How transparent are central banks on monetary policy?

With openness replacing mystique in the conduct of monetary policy, and with a multitude of communication initiatives undertaken in the 1990s and through a good part of the 2000s, the movement to transparency gathered speed. As a result of these developments, Geraats (2009) finds that all central banks have become more transparent, but inflation targeters are the most transparent. Similarly, Dincer and Eichengreen (2007) report that, among the 100 central banks they sampled, the most transparent were the RBNZ, the Sveriges Riksbank, the BoE, the Czech National Bank (CNB), the BoC, the ECB and the Central Bank of the Philippines—all inflation targeters, except for the ECB.[11]

The global financial and economic crisis of 2007–09 provided additional impetus for the movement to transparency, resulting in a further dramatic transformation in monetary policy

[10] More recent examples of policy guidance by the BoC during normal times, as well as the use by the BoC and by other central banks of *extraordinary* forward guidance under unconventional monetary policy, are discussed later in this paper.

[11] Although the ECB has a numerical inflation objective of "below, but close to 2% over the medium term" and a framework with many of the elements of IT, it does not consider itself an inflation targeter.

communications. This will be the focus of discussion in part 3 of the paper ("Central Bank Communications in the Wake of the Global Financial Crisis").

While the adoption of IT meant that the focus of many central banks before the crisis was primarily on the conduct and communication of monetary policy (partly reflecting institutional arrangements),[12] this is not to say that financial stability issues were not on their radar—far from it. To be sure, though, such issues have garnered more attention since the crisis.

2.2 Financial stability communications

2.2.1 Why are financial stability communications important?

The financial system, which consists of financial institutions, financial markets and clearing and settlement systems, plays a vital role in the economy, making it possible for savings to be directed to productive investments and for households and firms to carry out their financial transactions and to manage risk confidently and efficiently. It is also the main channel through which monetary policy actions are transmitted to the economy. A stable and efficient financial system contributes importantly to broader economic growth and rising living standards. But if the financial system is impaired, it can itself be a source of instability, aggravating problems that originate elsewhere in the economy and weakening the effectiveness of monetary policy. Furthermore, in today's highly interconnected world, financial problems can spread quickly beyond national frontiers and become the source of serious economic dislocations worldwide.

Thus, from the mid-1990s, central banks (including those that do not have direct responsibility for financial stability) have found it useful to report on financial developments, mainly through the publication of financial system reports (FSRs). With the BoE leading the way in 1996, many central banks in advanced and emerging-market economies followed suit over the next decade. The BoC joined this group in 2002.[13]

During those early years, the objective of FSRs was primarily to enhance public awareness of financial issues and to share with financial system participants and the general public the analysis, research and judgment of central banks on developments and issues in the financial system. Publishing a financial system review was also viewed, more broadly, as yet another step toward increased central bank transparency.

With financial stresses emerging in several countries through the early 2000s and leading to the 2007–09 global financial and economic crisis, greater emphasis has since been placed on identifying, assessing and communicating key risks and vulnerabilities to policy-makers, the financial markets and the public. The objective has been to limit instability in the financial system and in the economy more broadly, by identifying potential risks to financial stability and

[12] As a general rule, *sole* responsibility for monetary policy versus *shared* responsibility for financial stability.

[13] By the end of 2011, 80 countries were publishing FSRs (Čihák et al., 2012), including the United States, which had until then held off doing so. The U.S. Report is published by the Financial Stability Oversight Council (FSOC). The Fed is represented in the FSOC but, unlike other major central banks, it is not the sole publisher of the FSR.

policy actions required to mitigate them. In several countries, and certainly in Canada, the risk assessment in FSRs has been sharpened, with more systematic and explicit analysis of the severity of risks and the direction of any change to the risks since the previous FSR, as well as more discussion of mitigating policy actions (including global regulatory reforms). Speeches, interviews and other communications are also used to reinforce the core messages, as appropriate.

In the aftermath of the crisis, there has been increased recognition that, even though a *microprudential* policy approach—focused on limiting the damage that can be caused by stress at individual financial institutions—is necessary and appropriate, it is not sufficient. This is because the financial system is more than the sum of its parts. Accordingly, the focus should be on a *macroprudential* approach that aims to mitigate the damage to the financial system as a whole*,* thereby reducing the overall economic costs of financial instability. Given this shift in approach, there was a natural a role for central banks to assess and to communicate financial conditions and risks from an overall system-wide perspective—as they do for the macroeconomy. In this connection, Ng (2010) underlines that "clear central bank talk can enhance the impact of macroprudential policy actions and build the political constituency needed for such actions."

The pivotal role of financial stability communications has garnered considerably more attention and thought in recent years—and not just inside central banks. Researchers in international institutions (e.g., the Bank for International Settlements (BIS) and the International Monetary Fund (IMF)), as well as other analysts, study groups and academics have broached the subject and have provided useful insights. While, in general, they see certain parallels between monetary policy and financial stability communications, they also consistently highlight some important differences that can make the design of an effective communication strategy for financial stability particularly challenging.

2.2.2 Financial vs. price stability communications: similarities, differences and challenges

As with monetary policy, transparency and communications can enhance the impact of financial stability actions. Timely, effective central bank talk can help markets and the public anticipate the policy response to signs of growing risky activities and thus moderate behaviour that could imperil financial stability, note Ng (2010) and Geraats (2010). It can also bolster central bank credibility in macroprudential surveillance and policy.[14] And, as noted above, it can help build political and public support for any actions that may be needed and may prove unpopular.

The value of financial stability communications is thus undisputed, but recognizing their value does not make the task any easier. For, without question, communications on financial stability are more complicated and contentious than those on price stability. There are several reasons for this.

[14] Credibility in macroprudential policy can reinforce credibility in monetary policy and vice versa. Absence of credibility in either policy area can transfer to the other.

To begin with, like monetary policy, macroprudential policy also works with lags. Accordingly, policy-makers need to be *forward looking* in taking action to mitigate systemic risk. However, unlike monetary policy, diagnostic tools and models for assessing systemic risk are still not very well developed, and rarely do they provide very clear signals. Risks are difficult to detect as they typically build up during the boom phase, when there are fewer overt signs of vulnerability. Consequently, in comparison with monetary policy actions, financial stability actions often need to be taken without the benefit of definitive evidence and with less certainty about their final impact. All of this complicates the task of explaining the need for action, and, as Ng aptly notes, "even if the policymaker is correct to tighten, the possible crisis thus averted will not be observed, making success hard to claim even in hindsight."

A related, more fundamental issue is that the core objective of financial stability is stated in very broad terms as "aiming to limit systemic risk—the risk of disruption to financial services caused by an impairment of all or parts of the financial system—that can have serious negative implications for the real economy."[15] So, there is no single, quantifiable objective for financial stability that is as precise, clear and easily understood as that for price stability (particularly under IT).[16] Nor is there a single instrument for limiting systemic risk, analogous to the policy interest rate under conventional monetary policy. Instead, there is a range of regulatory tools.[17] Moreover, responsibilities for financial stability are multifaceted, and, in many jurisdictions, including Canada, such responsibilities are assigned to several government bodies. Thus, unlike monetary policy where central banks have *sole* responsibility, when it comes to financial stability, they often *share* that responsibility with other national authorities. For example, even though the BoC does not have control of the regulatory tools (e.g., mortgage insurance rules or the countercyclical capital buffer), it can still influence policy decisions through its assessment and communication—both internal and external—of risks and mitigating actions. ***In this sense, communication can be viewed as a policy tool—a tool that must be used judiciously and effectively***.

A *shared* remit complicates the task of communicating financial stability compared with monetary (price) stability, as there is no simple, straightforward way for the public to judge how successful the central bank has been in carrying out its specific financial stability responsibilities. So, it is in the central bank's interest to facilitate public accountability by communicating clearly its assessment of systemic risks, what it is aiming to accomplish, policy actions that it has recommended or taken and, ultimately, its own timely evaluation of the effectiveness of those actions. In this connection, former BoC Governor Mark Carney (2010a) emphasizes that "public communication of major risks raises awareness among market participants and the public and promotes central bank accountability for its risk assessments."

The extent of disclosure, i.e., how much should a central bank communicate regarding potential financial system vulnerabilities, is another very important challenge. All told, this comes down

[15] This is essentially the definition used by the IMF, the BIS and the Financial Stability Board (FSB).

[16] For this reason, Bean (2011) argues that effective communications in the area of financial stability will be even more important than in monetary policy.

[17] As discussed later, under certain circumstances, the monetary policy tool may also be used to support financial stability.

to a fine balancing act—keeping market participants and the public informed about potential financial risks, urging caution and promoting mitigating action, yet without causing panic. At the same time, central banks must also avoid inadvertently revealing private information or causing unnecessary concern and speculation about the state of individual financial institutions.

Furthermore, where there is joint responsibility for financial stability, central bank communications must also take into consideration the need for information sharing, coordination and the resolution of conflict, as well as the need for safeguarding confidential information provided by other financial stability partners.

In this regard, both Carney and Ng stress that, clarifying mandates, objectives and decision-making arrangements, and especially speaking with one voice, is vital. Ng, moreover, sees all this as equally relevant where micro and macroprudential decisions are made by the same authority, or where the officials responsible for macroprudential actions are also involved with monetary policy decisions. Thus, he suggests that policy-makers may need to explain the possible tensions between different objectives and how such tensions will be resolved. The BoC has addressed this particular issue as part of its thinking on the interaction of monetary policy and financial stability, which is discussed later in this paper (Section 3.2.2). Needless to say, where supranational policy action is involved (e.g., global regulatory reform), public pronouncements by central banks also require coordination with their counterparts in other countries.

BOX 1
Macroprudential Policy in Canada: How Does the Central Bank Fit in?

The BoC shares the financial stability role with other federal financial regulatory authorities, with the Minister of Finance having the ultimate responsibility for the sound stewardship of the financial system. Within this framework, the Bank has shared macroprudential responsibility for the financial sector, rather than microprudential oversight, which resides with the Office of the Superintendent of Financial Institutions (OSFI). Thus, the Bank assesses system-wide financial vulnerabilities, and, with its deep knowledge of the financial system (including capital markets) and insights on the interaction between the financial system and the real economy, takes the lead in the discussion of vulnerabilities at meetings of the policy-setting Senior Advisory Committee (SAC).(*) Other SAC members expand and provide comments from their particular perspectives.

In general, the above arrangements have worked well. Regular dialogue between the Governor and the Minister of Finance also helps to keep the Minister apprised of the Bank's latest assessment of any potential financial risks and implications for the real economy, as well as its views on any proposed policy action.

(*) Department of Finance, Office of the Superintendent of Financial Institutions, Canada Deposit Insurance Corporation (CDIC) and the Financial Consumer Agency of Canada (FCAC).

Naturally, 'speaking with one voice,' as highlighted above, requires arrangements for conflict resolution. This is critical, since under shared responsibility there is no effective mechanism or simple way to communicate dissent which, especially in times of crisis, can be quite damaging. Note, though, that Carney (2010a) argues that agreement can in fact be successfully achieved under a shared remit. In this connection, he cites Canada's experience which "demonstrates

that a system of shared responsibility across agencies can function effectively, provided there are appropriate arrangements to ensure effective collaboration and accountability" and to "facilitate effective decision making" (see Box on previous page).

2.2.3 Averting and managing a crisis: "the art of communicating concern without creating concern"[18]

Averting a crisis

Meyersson and Karlberg (2012, henceforth MK)[19] stress that communication is an important tool that central banks can use to avert a crisis, specifically by providing information about its assessment of risks and about the measures it sees as necessary to reduce those risks. They report that research (e.g., Coombs 2007) has shown that effective communications can mitigate the consequences of a financial crisis and even prevent it from occurring. Mishandled communications, on the other hand, can contribute to a crisis and indeed aggravate it.

They make a strong case for clarity, forthrightness and persistence in communicating risks, drawing on the experience of the Riksbank, which had been criticized for not being direct about looming risks in the period leading up to the global financial crisis. Even as MK state that the Riksbank had warned since 2005, and with stronger language in each FSR, about the risks in the Baltic countries (to which Swedish banks were heavily exposed), they do allow, in hindsight, that the message was "not clear or strong enough" about those risks and "so the signal went unnoticed."[20]

The global financial debacle of 2007–09 has also underscored the importance of *contingency planning* for averting or mitigating crises. To avoid having to develop policy responses on the 'fly' and under duress, various analysts have encouraged policy-makers to explore defensive strategies, including communications, based on a set of hypothetical crisis scenarios. In this regard, MK note: "communicating clear messages is difficult, but it's even more difficult to do this in the acute phase of a crisis. If an organisation does not have competence, procedures, a clear role division and systems in place before an acute crisis occurs, effective crisis communication will be difficult."

Clear communication is also critical in connection with any crisis measures taken by the central bank, points out Viñals (2010). During the global financial crisis, several central banks provided unprecedented extraordinary liquidity to banks (and, in certain instances, to non-banks as well) as part of their lender-of-last resort (LOLR) role. Some of these measures can potentially blur the policy role of a central bank (and have implications for its independence),[21] cause moral hazard and de-anchor inflation expectations. To facilitate proper understanding by the markets

[18] This quotation is from a study on crisis communication by Nord and Johansson (2008), which is available only in the original Swedish. The English translation of this quotation is courtesy of Meyersson and Karlberg (2012).

[19] Meyersson was Director of Communications at the Riksbank from 2007 to Autumn 2012. Karlberg is a researcher at the Stockholm School of Economics. Their book, *A Journey in Communication: The Case of Sveriges Riksbank*, with a foreword by Riksbank Governor Stefan Ingves, is a candid self-assessment of the Riksbank's communications efforts.

[20] Meyersson and Karlberg (2012), pp. 78, 92–93 and 99.

[21] See also Section 4.1 of this paper.

and the public and to avoid such adverse outcomes, central banks should communicate clearly, and in a timely fashion, the context and objective(s) of these actions. The 'exit' from such arrangements also needs to be clearly signalled and carefully explained. This is what the BoC chose to do in June 2010, when it announced prospective 'sunset' dates for all of its extraordinary liquidity operations during the crisis.

Crisis communications

With the benefit of hands-on experience and lessons learned through recent crises, MK also have some important insights to share on crisis communications. For example, they advise that building confidence during a crisis means avoiding such mistakes as communicating too little, not coordinating with other financial stability partners and, of course, not speaking in plain language. Preparing the groundwork, explaining what measures will be taken, if required, and meeting public demand for information are critical elements of a successful, confidence-building communications strategy in a crisis.

Above all, silence is not an option, for lack of communication can lead to mistrust. MK acknowledge, as do others,[22] that there are times when immediate, full transparency may be counterproductive if it triggers destabilizing behaviour, such as people running to the bank in a panic to withdraw all their savings. And sometimes there is so much uncertainty during a crisis that it is difficult, even for the central bank, to get a good picture right away of how serious the situation is, who will be most affected and so on.

Even so, the authors rightly stress the importance of communicating pre-emptively, even if this means simply stating the facts at the onset of a crisis—for example, acknowledging the problem, indicating that the authorities are carefully assessing the situation and promising prompt, regular updates. The important thing is not to be silent and allow others who do not have all the facts to fill the void with speculation about potential risks and outcomes, which will almost certainly worsen the crisis.

By communicating openly and clearly about the problems, by presenting possible measures, and by taking responsibility, a central bank can build credibility and create confidence even before any actual measures are implemented. For example, in Canada, not all potential extraordinary measures announced during the crisis had to be implemented. Nor was there heavy take-up of certain BoC liquidity facilities (e.g., Term Loan Facility and Term PRAs for Money Market Instruments and for Private Sector Instruments), or of the federal government's exceptional programs (e.g., the Insured Mortgage Purchase Program) put in place to provide support to the financial system. It is probably fair to say that prompt policy response and clear communications by the BoC and by other authorities helped to mitigate uncertainty, bolster confidence in the availability of liquidity, stabilize the financial system, and limit the actual use of such resources.

[22] For example, Crocket (2010) and BIS (2011).

To avoid conflicting messages, which are particularly detrimental to confidence during a crisis, MK advise, as do others, that communications should be centralized and coordinated internally, as well as coordinated with other financial stability authorities.

They also say that communications should be more closely adapted to the needs of target groups during a crisis, and, depending on the nature and implications of the crisis, there could be new target groups in need of a direct channel to the central bank. One way that the Riksbank and other central banks (e.g., the BoC, the Fed and the BoE) met such needs during the crisis was through Qs and As posted on their website.

What are the main takeaway messages here? Central banks should be:

- clear and direct about emerging risks;
- ready with an appropriate policy response in the event that such risks materialize; and
- ready with a communication plan to explain such actions to the public in a timely, forthright manner.

2.2.4 Impact of different financial stability communication vehicles

How effective have central banks been in communicating with financial markets and the public and thus limiting financial instability as part of their macroprudential role? Does the central bank's impact vary with the specific communication vehicle used? Are certain vehicles more effective than others?

As noted earlier, central bank FSRs are the principal communication vehicle dealing with the current financial stability framework around the world. These publications are usually supplemented by speeches, interviews and press releases (such as those issued in connection with LOLR operations and the activation and de-activation of extraordinary crisis measures). In addition, many central banks publish on their websites questions and answers related to the financial system and to policy measures taken, as well as backgrounders that explain, in non-technical language, the structure and workings of the financial system, highlight issues and risks in a specific area of concern (e.g., high household indebtedness) and so on. Some central banks (e.g., the Riksbank and the Fed) have also introduced 'chat rooms' or 'blogs' since the financial crisis to encourage dialogue with different target groups.

Reviews of the effectiveness of FSR communications around the world have been mixed. The early cross-country empirical studies, e.g. Čihak (2006) and Oosterloo, Haan and Jong-A-Pin (2007) find no clear relationship between FSR communications and financial stability. In retrospect, this may not be surprising given that, back then, most FSRs were recent arrivals on the scene and there were no major financial crises. Central banks were still feeling their way in this area and they were 'testing' how best to communicate and how much to say about financial risks (especially if they were operating in a shared responsibility setting). How confidently and convincingly they could discuss certain risks was also probably an issue, given the absence of reliable financial models and sound early-warning systems.

In a more recent IMF working paper, Čihak et al. (2012) again report that the publication of an FSR per se does not have a strong empirical link to financial stability. But the quality of the FSR does seem to matter, since their findings show that higher-quality reports—in terms of clarity, coverage of risks, and consistency over time—tend to be associated with more stable financial environments. That said, they also point out that, despite some progress in recent years, there is still room for improvement in the quality of FSRs. Based on an in-depth case study of eight countries—Brazil, Canada, Korea, Iceland, Latvia, New Zealand, South Africa and Spain—they note that most FSRs lack a forward-looking perspective (that is, they provide insufficient analysis of risks and vulnerabilities) and interconnectedness, making them less capable of assessing overall systemic risk. Canada, Korea, Latvia and Brazil are cited as usually reporting at least one type of stress test in each FSR, although they say that Canada's stress-test results only relate to households and do not have a quantitative link to the domestic financial system.[23]

Unlike the above studies, Born, Ehrmann and Fratzscher (2011) explore the effectiveness of central bank talk on financial stability issues by main communication vehicle—FSRs, speeches and interviews. They find that such talk has a clear impact on financial markets—a key target group of such communications. Using a database of more than 1000 communication events (one-third being the publication of FSRs, and the rest speeches and interviews by central bank governors) across 37 countries over the period 1996 to 2009, they analyze the reaction of financial markets to these events. Communications are considered effective if central bank views influence markets, by 'creating news' (moving the level of asset prices) or by 'reducing noise' (market volatility or uncertainty).

Born, Ehrmann and Fratzscher find that the tone of FSRs became increasingly optimistic after 2000, reaching a peak in early 2006, and turned more pessimistic thereafter. Based on this fact and on other tests they conducted, they say that FSRs did, in fact, contain some forward-looking assessments of risks and vulnerabilities that flagged a weakening financial stability environment well before the start of the crisis in August 2007. Of course, the question is how prominently these more pessimistic assessments were highlighted at the time and thus how much weight they carried.[24] In the wake of the crisis, in Canada as well as elsewhere, greater emphasis has been placed on risk assessments.

The empirical results of the above study also confirm that financial stability communications have a significant impact on asset prices. However, there are important differences in the effects of FSRs versus speeches and interviews. Equity markets move in line with the views in FSRs, and market volatility diminishes. In contrast, speeches and interviews by central bank governors are less effective under normal conditions—they have only a modest effect on stock prices and have little effect on volatility. However, they are particularly effective at guiding financial markets in times of stress (as in 2007–09). The authors assert that this is because FSRs are issued according to a fixed schedule, while the timing of speeches and interviews is more

[23] In fact, in Canada's case, there is a qualitative link to the financial system and, since 2008, also a simulation of the impact of an increase in unemployment on loan arrears. These are not explicitly mentioned in the above IMF study.

[24] Recall, for example, the case of the Riksbank, as related by MK on page 13 of this paper. Other central banks may, similarly, not have given sufficient prominence to certain emerging risks in the period leading up to the 2007–09 crisis.

flexible and responsive to prevailing conditions. Basically, since markets fully expect the central bank to talk about financial stability when the FSR is released, even if there is some element of surprise, the overall effect on markets is relatively modest. However, when a governor purposely chooses to raise financial stability issues in a speech or interview, the surprise element is amplified as is the market effect. Indeed, one may add that a message in a speech would be more focused and conspicuous than a similar message in a full FSR, and that such a message could be further emphasized during media activities around the speech (such as a press conference or a related media interview).

The main conclusion of the Born, Ehrmann and Fratzscher study is that speeches and interviews are likely to be more influential than FSRs, and could therefore be used more frequently during times of financial stress. However, there is one caveat: given their greater impact, they also have the potential to unsettle markets, so they must be used with great care.

On the whole, the empirical research to date underscores the difficulties involved in designing a sound, successful communication strategy for financial stability. Just the same, the fact remains that central bank talk on financial issues has attracted broad attention in the recent past and will be watched even more closely following the global crisis.

A frequent common message in much of the literature to date is that central banks can be more effective in promoting financial stability if they can build a reputation for sound analysis and for clear, high-quality communications. In light of this, what can central banks do, more specifically, to improve the quality and effectiveness of their financial stability communications?

A focused, coherent narrative is a key priority to help make the vague and technical nature of macroprudential policy more precise and meaningful. FSRs—the principal medium central banks use to talk about and to establish credibility about financial stability—are for the most part very technical documents that usually provide heavily conditioned warnings about a long list of risks. Some researchers (e.g., Ng) question whether this approach automatically leads to better systemic risk management, and suggest that FSRs should be more focused instead on simple messages and on carefully selected, prioritized key indicators.

Technical talk may not discourage the cognoscenti—financial experts and the markets—that are well-versed in the subject matter and have a strong profit incentive to scrutinize messages and to parse the meaning and nuances of central bank language. But this is not the case with the general public, which is unlikely to find the subject of systemic risk management particularly gripping.

To engage the average citizen, plain language with well-defined terms is essential. Messages should be as simple and digestible as possible; and they should avoid generating unrealistic expectations in relation to policy actions taken. In this regard, central banks that have control over macroprudential policy instruments, e.g., the BoE (see Section 3.2.2), can usefully turn for guidance to their communication of monetary policy decisions, which gives the background and the rationale for the decision typically in a one-page, non-technical press release—and usually

results in clear media headlines. Others, like the BoC, that do not control macroprudential policy can apply the above communication principles to their risk assessments.

Last but not least, efforts to improve financial sector modelling, diagnostic tools and stress tests would also give central banks a more solid basis for assessing and responding to systemic risks, in turn contributing to an all-around clearer, more effective financial stability narrative.

3. CENTRAL BANK COMMUNICATIONS IN THE WAKE OF THE GLOBAL FINANCIAL CRISIS

In the nearly two decades preceding the crisis, many central banks and academics came to agree that a flexible IT system focused on medium-term price stability, supported by central bank independence, accountability, and clear communications was the appropriate framework for monetary policy.

Commitment to this framework proved helpful in anchoring public expectations (and making monetary policy more effective) and in contributing to a long period of low inflation, macroeconomic stability and improved economic welfare, which came to be known as the *Great Moderation*.

In the end, though, price stability by itself was not enough to also guarantee financial stability. In fact, the Great Moderation may have made people complacent, encouraging risk-taking behaviour, and thus sowing the seeds of financial instability. In any event, the 2007–09 global financial and economic crisis made it abundantly clear that "price stability and financial stability are inextricably linked, and that pursuing the first without due regard for the second risks achieving neither" (Bank of Canada, 2011b). This has stirred a vigorous debate about the appropriate role of financial stability considerations within monetary policy frameworks.

To what extent have these recent events changed the prevailing pre-crisis monetary policy framework? And how have central bank communications evolved in response?

3.1 Flexible inflation targeting proved to be a robust framework through the crisis

In Canada and elsewhere, the IT regime proved its value through the crisis. A clear framework, demonstrated success and credibility in achieving the inflation target over time, and well-anchored inflation expectations gave IT central banks greater scope to deliver aggressive monetary stimulus to support their economies. It also helped them to clearly communicate the rationale for such actions. The trend towards greater transparency was not impeded by the crisis. If anything, it was strengthened with the United States and Japan deciding more recently to announce inflation targets (Lavigne, Mendes and Sarker, 2012).

3.*1.1 Unconventional monetary policy under inflation targeting*

The worldwide economic recession (the *Great Recession*), which followed on the heels of the financial crisis, prompted many IT (and non-IT) central banks to cut their policy interest rate to

its lowest possible level—the effective lower bound (ELB)[25]—and to use unconventional monetary policies (UMPs) to provide additional stimulus to their economies.

In addition to the provision of exceptional liquidity and funding to alleviate financial market disruptions, monetary authorities have deployed large-scale asset purchases (LSAPs) of government bonds, also known as quantitative easing (QE), and credit easing (CE)[26] to support macroeconomic stability at the ELB.

Some central banks have also used communications, in the form of 'forward guidance,' as a distinct unconventional monetary tool to provide further easing. Those already publishing explicit numerical projections for their policy interest rate (see the list on page 8) have continued to do so, consistent with achieving their inflation target. Others departed from their normal monetary policy communications practices to provide '*extraordinary* forward guidance' about the future path of the policy rate and about asset purchases, as elaborated in Section 3.3.2 below. For example, in April 2009, the BoC lowered its policy interest rate to the ELB (25 basis points) and committed to keeping it there until the second quarter of 2010, expressly *conditional* on the outlook for inflation.[27] As discussed later (Section 3.3.2), the Fed adopted a similar strategy in August 2011, stating that it expected economic conditions "to warrant exceptionally low levels for the federal funds rate at least through mid-2013" (FOMC 2011b).[28]

The BoC eventually raised its policy rate somewhat ahead of the original schedule, based on economic conditions and the outlook for inflation. The inflation target played a valuable role here, helping to communicate clearly the explicit conditionality of the Bank's commitment and thus to guide markets to anticipate the need for an early exit.[29]

[25] In practice, the effective lower bound (ELB) is not precisely zero. In the aftermath of the crisis, most central banks (including the BoC) stopped short of lowering policy interest rates to zero (the ZLB) so as to preserve the efficient functioning of short-term financial markets. For the purposes of this paper ELB, ZLB and the 'lower bound' are used interchangeably.

[26] Credit easing refers to purchases of private sector assets in certain credit markets that are important to the functioning of the financial system but that are temporarily impaired. Credit easing does not need to be financed through balance sheet expansion. Its impact could instead be 'sterilized' (e.g., by reducing holdings of other assets), so that the monetary base remains unchanged (Bank of Canada 2009).

[27] In its *Framework for Conducting Monetary Policy at Low Interest Rates,* the BoC (2009) identified three main tools that it would consider using to achieve the inflation target at the ELB: conditional statements about the future path of the policy rate, QE and CE. In the end, there was no need to use the latter two instruments.

[28] For the purposes of this paper, Fed and the Federal Open Market Committee (FOMC)—the Fed's policy-making body—are used interchangeably.

[29] Based on BoC experience, Lavigne, Mendes and Sarker (2012) suggested that the adoption by the Fed of flexible IT "may similarly facilitate communication of its eventual exit from the lower bound." This inference may now be extended to the BoJ, following its announcement, in April 2013, of a new massive quantitative easing program (QE) linked to the achievement of a price stability target. However, because in both cases record-low policy rates have been complemented by massive QE programs, communications and market expectations with respect to exit may prove trickier than in the case of the BoC.

Overall, flexible IT has worked well, even during very turbulent times. The more recent move by the United States and Japan to announce an inflation target surely reflects this assessment and adds another vote of confidence in this regime.[30]

To be sure, the experience of the crisis, with monetary policy constrained by nominal interest rates at the lower bound, also encouraged a debate on the merits of alternatives to IT, such as price-level targeting (PLT) and nominal GDP-level targeting. However, to date, the judgment has been that the potential benefits of these alternatives do not clearly outweigh the costs and risks that policy-makers would face in trying to realize those benefits in practice.

Ultimately then, it is not at all clear that the existing monetary policy framework needs to be changed fundamentally. Maintaining price stability over the medium term should remain the primary focus. But what is clear is that central banks can no longer ignore the main lesson of the crisis, namely, that maintaining financial stability is an equally critical policy responsibility. As Fed Chairman Ben Bernanke (2011) put it, "one of the most important legacies of the crisis will be the restoration of financial stability policy to co-equal status with monetary policy." Adjustments have therefore been, and will continue to be, necessary to improve the ability of central banks to address monetary and financial stability considerations, and to communicate effectively with the public and the markets.

A number of central banks have already chosen to strengthen the role of financial stability within the current flexible IT system. Some, like the BoE, have introduced a new macroprudential policy framework to fortify financial stability alongside price stability.

3.2 The interplay of monetary policy and financial stability

3.2.1 It all started with asset prices

The question of whether and how central banks should take into account and respond to financial stability considerations predates the crisis, but has taken on added urgency since then.

With growing concerns through the late 1990s and early 2000s about the longer-run consequences of asset-price misalignments ('bubbles'), this issue was the subject of vigorous debate. Back then, the consensus among central bankers was that monetary policy could not and should not attempt to burst bubbles. The best contribution central banks could make to economic stability would be to focus solely on price stability. Their role with respect to financial stability should be restricted to moving resolutely to minimize the damage after the bubble burst.

With asset overvaluations and debt accumulation persisting, and with the prospect of a sudden unwinding of these imbalances threatening economic and financial stability, the consensus view

[30] While adopting a numerical inflation target, the Fed stopped short of declaring itself an inflation targeter. However, Fed Vice-Chair Janet Yellen (2013c) suggested that the language of the FOMC *Statement on Longer-Run goals and Monetary Policy Strategy* (FOMC, 2012a) "is entirely consistent with modern descriptions of *flexible* inflation targeting."

shifted somewhat by the early 2000s. There was still broad agreement that flexible IT did not require the explicit addition of asset prices in the target index. Monetary policy should focus on the implications for output and inflation of any economic disturbance, including asset-price shocks, and respond in a manner consistent with meeting the long-run inflation objective. However, some analysts argued for a more activist response to asset-price movements within an IT framework. Indeed, as early as 2003, Bean (2003) allowed that "forward-looking flexible inflation targeting central banks should bear in mind the longer-run consequences of asset price bubbles and financial imbalances in the setting of current interest rates." In which case, they "**may need to look out further into the future than is usual in order to take on board those considerations** [emphasis added]," he argued.

In the 2006 renewal of its IT agreement, the BoC (2006) noted that because the effects of financial imbalances on output and inflation could be felt over a long period of time, some flexibility might be required with regard to the time horizon for returning inflation to target. While this flexibility might mean sacrificing some inflation performance over the usual policy horizon, it would lead to greater financial, economic and price stability over a somewhat longer horizon. In line with its commitment to transparency, the Bank also stated that, where it was judged that the horizon should be adjusted, it would communicate the reasons for the change and how it planned to respond.

3.2.2 The lessons of the crisis: the monetary policy-financial stability nexus

The global financial crisis subsequently underscored the importance of focusing on excessive credit-fuelled debt (rather than on asset prices) as a key feature of broad-based financial imbalances that pose the greatest threat to macroeconomic and financial stability. It also highlighted the need for policy-makers to address such imbalances pre-emptively ('lean against the wind') as they build, rather than just 'clean up' after they unwind. This is because the unwinding of these imbalances involves an extensive, lengthy deleveraging (running down of debt) process, which is usually also associated with persistently weak demand.

In the aftermath of the crisis, central bank and academic thinking on the interaction of monetary policy and financial stability, and specifically the role that the various policies and stakeholders should play in addressing instability, seems to have generally converged on the following principles. The first line of defence against financial imbalances caused by credit excesses is responsible behaviour by individuals and financial institutions. Next are micro- and macroprudential regulatory and supervisory measures, such as the terms of mortgage financing, countercyclical capital buffers and so on. Together, these defences can mitigate financial excesses and contribute to greater macroeconomic stability. In some circumstances, monetary policy too can contribute to financial stability directly by complementing macroprudential policy, especially when broad-based imbalances are building or unwinding.

The above principles underscore the BoC's thinking on the subject. Specifically, the Bank (2011b) explained that, by its nature, monetary policy has a broad influence on financial markets and on the leverage of financial institutions that cannot be avoided. This 'bluntness'

makes monetary policy an inappropriate tool to deal with excesses that affect only a specific sector (e.g., housing). However, it can be useful in addressing imbalances that may pose an economy-wide threat and/or imbalances that may have been encouraged by a prolonged low-interest-rate environment. In such exceptional circumstances, monetary policy itself may be needed to support financial stability.

With the experience of the crisis, the BoC has also further clarified the role that the *flexibility* of the IT framework can play in promoting adjustment to financial excesses.[31] For example, there could be instances when, even though inflation is above target, continued monetary stimulus would be desirable to facilitate the adjustment to extensive deleveraging. Likewise, a tighter monetary policy that keeps inflation below target longer than usual could help prevent excessive borrowing and a broader buildup of financial imbalances. Any such adjustment of the target horizon is, of course, understood to still be fully in line with the longer-run pursuit of low and stable inflation—***a message that should be clearly communicated to fend off potential allegations of overstepping the price stability mandate***.

Other central banks also reviewed, and in some cases, highlighted the role of financial stability considerations in the conduct of monetary policy. Differences, in practice, between their approach and that of the BoC are not always evident, and any inferences essentially depend on the interpretation of a central bank statement.

For example, in 2010, the Reserve Bank of Australia (RBA 2010) amended its Statement on the Conduct of Monetary Policy to indicate that, "without compromising the price stability objective," it would seek to use its powers where appropriate to promote the stability of the financial system. Lavigne, Mendes and Sarker (2012) note that how much the RBA approach would differ from that of the BoC depends on how "without compromising" is interpreted.

The Fed also indicated that monetary policy decisions would take into account "its assessments of the balance of risks, including risks to the financial system that could impede the attainment of the Committee's goals" (FOMC 2012a). However, it did not clarify to what extent it would sacrifice inflation and employment performance in the short- to medium-term to mitigate risks to the financial system that might hinder achievement of its goals over a longer horizon.

The BoJ and the ECB explicitly take into account longer-term considerations in their monetary policy frameworks. The BoJ uses a "two-perspective approach" that focuses on economic and price conditions one to two years ahead, and on long-run risks that have a low probability of materializing but may have a substantial effect on the economy.[32] The ECB uses a "two-pillar approach," that combines economic analysis of short- and medium-term economic activity and financial conditions with monetary analysis of longer-term factors, such as money and credit

[31] In addition to financial excesses, the BoC envisages two other sets of circumstances in which it may be desirable to return inflation to target, from above or below, over a somewhat longer-than-usual horizon: (i) when large and persistent shocks (such as a sharp sustained increase in oil prices) hit the economy; and (ii) when it is necessary to 'buy some insurance' against significant overall downside or upside risks to the inflation outlook. For details, see Bank of Canada (2011b).

[32] For details, see Shirakawa (2011).

growth. Incorporating monetary aggregates in the policy framework is presumed to facilitate a 'leaning-against-the-wind' approach that can help smooth financial cycles and stabilize the economy in the medium term. Lavigne, Mendes and Sarker, however, point out that the European debt crisis occurred despite these features of the ECB monetary policy framework.

In 2010, the Swedish parliament commissioned an independent review of the Riksbank's monetary policy and work on financial stability during the 2005–10 period. The report (Goodhart and Rochet 2011) recommended that the Riksbank specify more clearly its mandate in promoting financial stability, the tools it could use to achieve this goal, and how it interacts with other financial stability partners. In 2012, while still awaiting an amendment in the legislation to clarify a macroprudential policy framework, the Riksbank released a new communications policy for financial stability, key elements of which were discussed earlier (Section 2.2.3).

As of 2013, the BoE has responsibility for both monetary and financial stability through its two separate committees—the Monetary Policy Committee (MPC) and the Financial Policy Committee (FPC). In the context of its recent adoption of forward guidance for the policy rate (Section 3.3.2), the BoE (2013c) has indicated that ". . . consistent with the division of responsibilities between the two Committees, the FPC will alert the MPC publicly if the stance of monetary policy poses a significant threat to financial stability that cannot be contained by the substantial range of mitigating policy actions" available to the regulatory authorities.[33] Pointing out that financial instability could damage growth and endanger price stability, the BoE concludes that "In some circumstances, monetary policy has an important role to play as a last line of defence in mitigating risks to financial stability."

What have all these developments since the onset of the crisis meant for central bank communications?

3.3 Central bank transparency and communications since the crisis

> ". . . transparency in central banking is kind of truth-telling in everyday life. You've got to be consistent about it." B. Bernanke

The trend towards greater transparency has gained momentum since the 2007–09 crisis, resulting in further striking advances in monetary policy communications. The use of UMPs to support the economy in the presence of the lower bound on interest rates and a deeper appreciation of the interconnectedness between monetary policy and financial stability have provided the main impetus to this 'revolution' in central bank speak. Communications now play a vital and, in some cases, a unique role in the formulation of monetary policy.

[33] The BoE's new regulatory architecture consists of three bodies: (i) the FPC, charged with setting macroprudential policy; (ii) the Prudential Regulation Authority (PRA), responsible for supervising banks and other financial institutions; and the Financial Conduct Authority (FCA), responsible for business and market conduct, competition and consumer protection.

Forward guidance in normal times

Recall that the effectiveness of monetary policy depends critically on the ability of a central bank to shape future expectations by helping the public and the markets understand how it intends to conduct policy over time, and how that policy is likely to affect the economy. To facilitate this understanding, central banks have in the past used some type of forward-looking statement about the future course of monetary policy.

Before the 2007–09 crisis, forward-looking statements were typically used to *supplement* the setting of the policy rate and to help markets anticipate future changes in that rate—with two notable exceptions. When the **BoJ** adopted a zero-interest-rate policy in 1999 to bring the serious economic downturn to a halt and avoid an intensification of deflationary pressures, it also made a commitment to pursue this policy "until deflationary concerns are dispelled." The BoJ refined this guidance in 2001 to indicate that rates would stay at zero until the CPI showed "stably non-negative inflation." In 2003, the **Fed** cut its policy rate—the federal funds rate (FFR)—to 1 per cent, in response to the stubbornly weak recovery from the 2001 recession and said that ". . . policy accommodation can be maintained for a considerable period."[34] In reviewing this experience, Fed Vice Chair Janet Yellen (2013b) explained that, with unemployment still elevated at the time, the FOMC sought "some further way to stimulate the economy." Thus, it stated that it intended to keep the FFR low for longer than might have been expected. As the FFR was not at the zero lower bound in 2003, one interpretation for the use of guidance might be that the Fed wanted to avoid reducing the rate below 1 per cent.[35,36]

An earlier section of this paper (2.1.5) discussed variants of forward-looking statements intended to provide policy guidance during normal times. Last December, Carney (2012) described two other specific examples of guidance that the BoC has provided, or has undertaken to provide, during normal times to guide expectations and to allow markets and the public "to think along with the Bank" as new information arrives. In July 2011, the Bank inserted a technical box in the *Monetary Policy Report* to clarify its approach to the policy rate and to correct certain market assumptions that the rate needed to be at 'neutral' (its long-run level) when inflation was on target and the output gap was closed.[37] The second example, informed by the experience of the crisis, concerns the different time horizons that apply to financial excesses and other economic disturbances and, hence, the potential for tension between price and financial stability considerations over the typical monetary policy horizon. For example, the Bank has repeatedly highlighted the risks related to household imbalances in Canada and the likely implications for the path of the policy rate if these concerns are not addressed. Importantly, it has also stressed that, if it were to 'lean' against such imbalances (i.e., react

[34] Carney (2013) calls these two cases of early extraordinary guidance "first-generation" qualitative EFG (Section 3.3.2 expands on this and on subsequent generations of EFG).
[35] Indeed, Carney (2013) suggests that ". . . guidance was used, in part, because the Fed wanted to avoid cutting rates further."
[36] Note that Yellen (2013b) considers this occurrence to be the first time that the Fed used "communication—mere words—as its primary monetary policy tool," adding that "communication was an independent and effective tool for influencing the economy." But then she goes on to clarify that, unlike in 2003, when the Fed could still reduce the policy rate, if it became necessary, in 2009, communication about the future path of the policy rate was the *only* option.
[37] For details, see Bank of Canada (2011a), Technical Box 2.

sooner and set interest rates higher than needed to meet the inflation target), it would clearly say so through its communications and indicate how much longer it expected it would take for inflation to return to target.

Unconventional monetary policy and forward guidance in exceptional times

As the global financial crisis spread to the real economy in 2008, the policy environment in many advanced economies became much more challenging than in previous recessionary episodes, when monetary authorities at least still had the option to reduce the policy rate further. With the traditional monetary policy tool off the table, central banks turned to unconventional policy options[38] to stabilize the financial system, shape expectations, help lower longer-term interest rates and arrest the steep decline in economic activity.

To restore the proper functioning of financial markets and financial intermediation, some central banks expanded their traditional LOLR role, providing ***extraordinary liquidity*** to a broader set of bank and non-bank entities. They also introduced new or expanded ***credit facilities,*** mainly through purchases of private sector assets, to restore the provision of credit in specific markets that are important to the functioning of the financial system but that were temporarily impaired. Various ***financing schemes*** were also employed to alleviate borrowing constraints on banks and to facilitate lending to households and businesses.

As the crisis deepened, a number of central banks that needed to provide additional monetary stimulus to their economies at the ELB, deployed ***quantitative easing*** **(QE)**—large-scale asset purchases (LSAPs), primarily of government bonds but also of mortgage-backed securities (MBS). Both the Fed and the BoE have made extensive use of QE since 2008 and 2009, respectively, leading to a swelling of their balance sheets to unprecedented levels. In April 2003, the BoJ also announced a massive QE program to combat that country's long-standing deflation problem and to achieve the 2 per cent price-stability target it set at the same time.[39]

Importantly, communications per se*,* in the form of ***extraordinary (or enhanced) forward guidance (EFG), emerged as a discrete unconventional policy tool,*** designed to contribute to monetary easing and to halt the decline in economic activity**.**[40] With the policy rate practically at zero, and with some central banks using LSAPs to provide additional monetary stimulus, it became more difficult for markets and the public to use past experience to anticipate how monetary policy would affect and respond to economic conditions. In these circumstances,

[38] See also Santor and Suchanek (2013) and IMF (2013a) for details of UMP measures.

[39] As a percentage of GDP, the Fed's balance sheet has more than tripled and the BoE's more than quadrupled since 2007. Over the same period, the ECB's balance sheet more than doubled. The balance sheet of the BoJ has so far expanded by 50 per cent and, under the new QE program, it is expected to increase to about 60 per cent of GDP by end 2014. By comparison, the BoC's balance sheet increased by 50 per cent from 2007 to 2009, before falling back to close to its previous level of less than 5 per cent of GDP.

[40] Note that the objectives of the provision of liquidity and credit facilities, on the one hand, and of QE and EFG, on the other, while conceptually distinct, are closely related in practice. At the end of the day, they both aim to support macroeconomic stability by preventing a collapse of the financial system, repairing the transmission of monetary policy and reducing the risk of economic depression and deflation.

explicit *conditional* statements about the future path of the policy rate (and LSAPs) can be used to guide markets that the central bank will keep rates at this level for longer (allowing inflation to be higher in the recovery) than consistent with its normal policy rule. If successful, this type of guidance will lower expectations of future interest rates and give the public a more solid basis on which to form their borrowing and spending decisions today, thus supporting aggregate demand.[41]

Since the crisis, several central banks have used EFG to indicate how long they expect to keep their policy rates at the lower bound. Where QE is also in use (notably in the United States), EFG has been extended to QE to communicate the intended size and duration of asset purchases and, in this way, help shape market expectations of future short- and long-term interest rates. EFG has evolved over time (see Section 3.3.2), becoming more explicit and more dependent on specific economic outcomes, as central banks have sought to enhance its efficacy.

3.3.*1 UMPs: the catalyst for further advances in central bank transparency and communications*

Increasing the effectiveness of non-traditional monetary policies to provide additional stimulus at the ELB required further important strides in transparency and communications to describe, justify and connect these policies convincingly to the mandated objective(s) of central banks. To this end, central banks have increased the breadth and frequency of their data releases and of their economic, financial and policy commentaries. Over the past decade, but especially since the crisis, they have also focused increasingly on two-way communication, in particular gathering 'field intelligence' and other anecdotal evidence through business visits, to better gauge how sentiment is affecting the economy. As well, they have broadened the range of their communication events to engage as many diverse audiences as possible. Further advances in web technology have enabled central banks to leverage multiple social media (e.g., Twitter, YouTube, RSS feeds) to expand their reach and to deliver their messages quickly and efficiently. Live broadcasts, podcasts, blogs and, in some cases, 'chat rooms' have been used to disseminate information and to invite public feedback. Throughout, the goal has also been to make messages as clear, simple and understandable as possible.

With several major IT central banks having already made important advances in transparency prior to the 2007-09 crisis, further significant progress since then largely reflects enhanced disclosure initiatives by central banks with heavy reliance on UMPs and, in the case of the Fed and the BoJ, also their adoption of inflation targets.

Particularly notable in this regard are the steps taken by the **Fed**. In 2011, Chairman Bernanke initiated a press conference (broadcast live on the Fed's website) after alternate meetings of

[41] The idea that monetary policy can still be effective at the ZLB working through the expectations channel, i.e., by credibly promising to keep interest rates close to zero for longer than warranted, goes back to papers by Krugman (1998) and Eggertsson and Woodford (2003).

the FOMC, to present the *Summary of Economic Projections* (SEP).[42] The SEP, published quarterly, provides FOMC participants' individual projections of economic variables and their views about the appropriate stance of policy to achieve the best possible economic outcomes. In January 2012, the Fed also provided a numerical value for the FOMC's longer-run inflation goal to go with a specific goal for maximum employment (see Section 3.3.2); and it began including information on the policy path assumptions underlying FOMC participants' economic projections in the SEP.[43] These new initiatives accelerated a more gradual move to greater disclosure that started before the crisis with the regular, semi-annual testimony of the Chairman to Congress and the publication of the minutes of FOMC meetings after three weeks (rather than six previously). Supplementing the above initiatives have been frequent speeches by FOMC members and regional Fed presidents, new publications and data releases, including a quarterly report on the Fed's balance sheet, FAQs, blogs, etc. Extensive use of the web and social media has also been supporting the delivery of Fed communications.

As an early (1992) inflation targeter, the **BoE** had already built a credible transparency record before the crisis. Information on its view of the economic outlook (with projections for output and inflation) and on the factors behind policy decisions has been provided regularly in the BoE's quarterly *Inflation Reports* and associated press conferences,[44] minutes of monthly MPC meetings, speeches by MPC members and parliamentary hearings. Since the adoption of QE in early 2009, the scope of these communications has expanded further to help explain to the public what QE is all about, how it works to boost demand and so on. Short, web-based non-technical pieces, an animated presentation and a summary of the latest MPC views on the most commonly raised questions on QE have been added to other pertinent information disseminated through the above regular communication vehicles. The introduction of EFG in August 2013 (see next section) ushered in a new phase in BoE transparency and communications.

The **ECB** too has been providing explanations of policy decisions at monthly press conferences of its President since 1999, as well as in its *Monthly Bulletins* and at monetary policy dialogues with the European Parliament. It has also been publishing macroeconomic projections (inflation, GDP and its main expenditure components) for the euro area twice a year in its *Monthly Bulletin.*[45] Speeches and interviews by senior ECB executives and other, largely web-based, forms of communication are also used extensively. Unlike other major central banks (e.g., the Fed, BoE and BoJ) that determine monetary policy by majority vote, and accordingly publish minutes of their deliberations typically within 3 to 4 weeks of policy meetings, the ECB does not do so. Under current rules, minutes can only be released after 30 years. ECB President

[42] St. Louis Fed President James Bullard has suggested that the Fed could hold a press conference after all eight FOMC meetings to give the Chairman an opportunity to communicate with and reassure markets on a more regular basis.

[43] The 2012 Fed communication initiatives were among proposals brought forward by a new Subcommittee on Communications, constituted in the summer of 2011 and headed by Vice-Chair Janet Yellen, to look for ways to enhance transparency and to provide additional information to the public about the future path of the policy rate.

[44] Press briefings for the *Inflation Report* became a regular feature after the BoE gained operational independence in 1997.

[45] Since December 2000, the ECB has published the Eurosystem staff projections (produced jointly by the ECB and the euro-area national central banks) in June and December. Since September 2004, these projections have been complemented by ECB staff projections and have been published in March and September (ECB 2013).

Mario Draghi (2013b) has, however, indicated that a change is under consideration, since "the Governing Council thought that it would be wise to have a richer communication of the rationale behind its decisions." Publishing minutes might also fit well with the ECB's adoption of EFG in July 2013.

In Japan, the enactment in 1998 of the revised **BoJ** Act, focused on independence and accountability, provided the early thrust for greater transparency. Communications have since revolved around the 14 monetary policy meetings (MPM) per year and related press conferences by the Governor, monthly reports on economic and financial developments, the BoJ's semi-annual view of the economic outlook, minutes of the MPM (released within a month), parliamentary hearings and speeches. With the adoption of a price stability target and a new phase of QE in 2013 to arrest Japan's protracted economic downturn and deflation, the BoJ has committed to further improving the effectiveness of its communications. It has thus undertaken to convey its policy stance "intelligibly" to markets, firms and households, "set up forums for enhanced dialogue with market participants" to shape and keep expectations on track, expand contacts with media and parliament, and broaden its communication tools.

The focus, post-crisis, of other IT central banks (e.g., BoC, Riksbank, RBNZ) with an already well-established past record of transparency remains on increased interaction with a variety of audiences, communication products that are tailored to the needs of target audiences, clarity and language accessibility. In all cases, extensive leveraging of new means of electronic messaging facilitates the delivery of communications.

3.3.2 *EFG as a discrete unconventional monetary policy: practical application and forms*

As noted earlier, the **BoC** was the first major central bank to use EFG in April 2009, when its policy rate was at the ELB, and additional monetary stimulus was needed. Guidance took the form of a statement indicating that the Bank intended to keep the policy rate at the ELB until the end of the second quarter of 2010, explicitly *conditional* on the outlook for inflation. With this statement, the Bank effectively substituted duration and greater certainty regarding the interest rate path for the negative interest rate that would have been appropriate but could not be achieved with nominal interest rates close to zero. The Bank also provided details of the conditions that would guide the unwinding of any extraordinary liquidity facilities or any assets purchased in the process. Further, it indicated that the objective of any asset purchases, how such purchases would be financed, their effectiveness and so on, would be promptly communicated to Canadians through press releases, announcements of detailed operational decisions, speeches, *Monetary Policy Reports* and parliamentary appearances.

The BoC's conditional commitment succeeded in changing market expectations of the path of the policy rate, lowering longer-term interest rates (He 2010), and thus underpinning a rebound in growth and inflation which, in turn, obviated the need to use other unconventional policies, notably QE. It also helped markets to anticipate the need for an exit when the inflation outlook changed. Carney (2012) reasons that the commitment worked because it was exceptional, explicit and anchored in a highly credible inflation-targeting framework; it was backed by the

availability of exceptional liquidity; and it reached beyond central bank watchers to make a clear, simple statement directly to Canadians.

Calendar-based ("second-generation") vs. qualitative ("first-generation") guidance

The BoC's pioneering **calendar-based** (a.k.a. **time-contingent** or **date-based**) **guidance** essentially ushered in what Carney (2013) calls the "second generation" of extraordinary guidance.[46] Such guidance provides critical information to the markets and the public about how the date of exit may change in response to new economic information. In contrast, "first-generation" **qualitative** (a.k.a. **open-ended) guidance,** as previously employed by the BoJ and the Fed, gives no indication of the timing or conditions under which policy may tighten, and leaves it to markets to interpret words such as "stably" (e.g., BoJ in 2001), "considerable" or "extended" (e.g., Fed in 2003 and 2009).

In August 2011, the **Fed** emulated the BoC approach. It enhanced its guidance, which until then had stated that the federal funds rate (FFR) would likely stay at exceptionally low levels for "some time" or "for an extended period," by replacing the latter with "at least through mid-2013." This calendar-based commitment was moved into the future several times (the last such occurrence being in September 2012, when it was shifted to mid-2015).

While the Fed's calendar-based guidance was more specific than the previous indefinite "extended period" language, it was criticized for not giving clear information about what the Fed was trying to achieve or the economic conditions that would justify continuing a highly accommodative monetary policy. To make its objectives clearer, in January 2012, the FMOC released a *Statement on Longer-Run Goals and Monetary Policy Strategy* (FOMC 2012a) that specifies an inflation rate of 2 per cent and an unemployment rate of 5.2 to 6 per cent as the longer-run goals consistent with the Fed's dual mandate. This statement, which was reaffirmed in January 2013, also clarifies that economic developments may cause inflation and unemployment to move away temporarily from the above objectives. In such a case, the FMOC said that it will use a balanced approach to return both, over time, to the longer-run goals. The Fed continued to place considerable emphasis on its communications, confirming that it sees its EFG as an important policy tool in its efforts to get traction in the economy. In September 2012, it sought to clarify how it would use the FFR to return inflation and unemployment to its longer-run objectives. To this end, it linked future unconventional monetary policy to substantial "sustained improvement in labor market conditions" within a context of price stability. The Fed also initiated a new, open-ended, LSAP program (LSAP3 or QE3), and it stated that it would leave highly accommodative monetary policy in place "for a considerable time after the economic recovery strengthens."[47] This was clearly aimed at

[46] For a fuller exposition of the role of EFG in exceptional circumstances, the relative advantages and disadvantages of the different approaches to providing EFG and design considerations (including the choice of indicators), see Bank of England (2013c).

[47] If inflation temporarily overshoots the target as the economy picks up, markets may doubt the willingness of an inflation-targeting central bank to respect its commitment to highly accommodative policy. Such doubts can reduce the effective

helping the economy attain "escape velocity" (the point where the economy begins to grow again in a sustainable manner).

The above statement still left some media and market questions unanswered. People wanted to know what the FOMC considered as "substantial sustained improvement" in the labour market and how it would judge if such an improvement had been achieved.[48]

State- or data-contingent guidance ("third-generation") guidance

In December 2012, the Fed further enhanced its forward guidance, stating how it would use the FFR to return inflation and unemployment to the longer-run goals. Specifically, it said that it expects to hold the FFR near zero "at least as long as the unemployment rate remains above 6 1/2 per cent, inflation between one and two years ahead is projected to be no more than half a percentage point above the Committee's 2 per cent longer-run goal, and longer-term inflation expectations continue to be well anchored" (FOMC 2012b).

With this, the Fed essentially pioneered the "third generation" of extraordinary guidance, noted Carney (2012), adding that other central banks could design similar **state- or data-contingent** (a.k.a. **threshold**) **guidance** using real or nominal variables relevant to their economic circumstances.[49]

Subsequent Fed communications provided details of how this form of guidance would be applied. Elaborating on information provided by Bernanke (2012) at the press conference after the December 2012 FOMC meeting, Yellen (2013b and 2013c) explained that the Fed sees the above inflation and unemployment measures as numerical thresholds for possible action, not as triggers that will necessarily prompt an increase in the FFR. Further, in deciding how long to maintain an exceptionally easy policy stance, the Fed will consider a broad range of labour market indicators to judge the strength of that market, as well as using other indicators of inflation pressures and expectations, and readings of financial developments.

Overall, with a dual mandate of price stability and maximum employment, and with the need under exceptional circumstances to use multiple UMP tools to achieve those objectives, the Fed has faced formidable communication challenges since the crisis. Having recognized since mid-2009 the value of EFG as a discrete, temporary policy tool in difficult times, it has since steadily pursued refinements to such guidance to maximize its effectiveness.

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stimulus of the commitment and delay the recovery. For this reason, a central bank may need to commit explicitly to retaining its accommodative policy even after the recovery strengthens and, potentially, inflation picks up.

[48] Asked about this at the press conference for the FOMC decision, Bernanke responded that the Committee did not have a specific number in mind, but "what the unemployment rate is now clearly is not it."

[49] Could there be a "fourth-generation" guidance, if still further stimulus was needed? For IT central banks, threshold guidance exhausts their guidance options. After that, says Carney (2012), the IT framework itself would likely have to be replaced with a 'history-dependent' framework, e.g., nominal GDP-level targeting. However, he concedes that, given the caveats noted earlier (Section 3.1.1), the potential benefits of the latter will have to be weighed carefully against the effectiveness of other UMPs under the proven flexible IT system.

In Japan, where a long-standing zero-interest-rate policy and incremental QE have failed to combat chronic deflation, in April 2013, the **BoJ** changed its price stability target from 1 to 2 per cent and made a strong, clear commitment to achieve that target "at the earliest possible date, with a time horizon of about two years."

To underpin this commitment, the BoJ embarked on a massive "quantitative and qualitative monetary easing" program, explained Governor Haruhiko Kuroda (2013). The program aims to double the monetary base and the BoJ's holdings of Japanese government bonds (JGBs) in two years, as well as more than double the average remaining maturity of JGBs. Purchases of other risk assets, e.g., exchange-traded funds (ETFs), are also envisaged. All of this is intended to shape expectations and to lower longer-term interest rates and risk premiums of asset prices. ***Indicative of the power of words, inflation expectations hit a four-and-a-half-year high in the first quarter of 2013, on just the*** **promise** ***of aggressive QE stimulus***, before the program was formally announced and its implementation started in early April.

To convince sceptics, the BoJ has underscored that it will continue with this monetary easing "as long as it is necessary" to maintain the 2 per cent price stability target "in a stable manner." This is a "first-generation" forward guidance, with application to the BoJ's QE program.

Since early 2009, the **BoE** has also implemented a program of LSAPs of public and private assets, along with a Funding for Lending Scheme (FLS) to support bank lending to households and businesses. The BoE did not use its QE program explicitly to signal its intentions about the likely path of the policy rate. Instead, it emphasized its commitment to meet the inflation target through its normal communication channels—*Inflation Report*, Minutes of MPC meetings, speeches and parliamentary appearances.

However, in August 2013, with the recovery still slow by historical standards and considerable slack in the economy, the MPC provided, for the very first time, explicit state-contingent EFG, similar to the Fed's, about the future path of monetary policy. This guidance aims to avoid a premature rise in interest rates as the recovery gains traction and "to mitigate the risk that (U.K.) financial market participants react inappropriately to news from abroad" as, for example, they appeared to do in June 2013, when they reacted sharply to news about the expected path of U.S. monetary policy (Bank of England 2013c).

The BoE said that, in the current exceptional circumstances, EFG linked to economic conditions can enhance the effectiveness of monetary stimulus. It provides greater clarity about the MPC's view of the appropriate trade-off between the horizon for returning inflation to target and the speed with which output and employment recover. It reduces uncertainty about the policy path as the economy picks up. And it provides more scope to explore the potential for sustainable economic expansion.

The MPC has clarified that it intends to keep its exceptionally accommodative monetary policy stance until spare capacity has been substantially reduced, provided this does not endanger the primary price stability objective or financial stability. Specifically, the MPC will hold the Bank

Rate at 0.5 per cent until the unemployment rate has fallen *at least* to a 'threshold' of 7 per cent. Until then, the MPC also stands ready to provide more stimulus (through QE), if necessary.

The above threshold guidance may no longer apply if: inflation 18 to 24 months ahead is seen rising to 2.5 per cent or higher; or medium-term inflation expectations are no longer sufficiently well-anchored; or the stance of monetary policy is judged to pose a significant threat to financial stability. As in the case of the Fed, the above 'knock-outs' would not automatically trigger a rise in the Bank Rate or asset sales, but would instead prompt a re-evaluation of the appropriate monetary policy setting.

Since 2008, the **ECB** has also made use of several types of UMP measures—extraordinary liquidity, credit facilities and asset purchases—to support economic activity and to promote financial stability. The Securities Markets Programme (SMP) of 2008 and 2011 focused on stabilizing government securities markets to facilitate the transmission of monetary stimulus. In 2011, the ECB also offered euro-area banks unlimited three-year loans through its long-term refinancing operations (LTROs). And in July 2012, the ECB stated that it was "ready to do whatever it takes to preserve the euro" (Draghi, 2012).This was followed in September 2012 by the announcement of open-ended Outright Monetary Transactions (OMTs) to buy short-term sovereign bonds of euro-area countries that agree to receive official support, conditional on their compliance with an economic adjustment program.

In July 2013, amid concerns of upward pressure on interest rates, reflecting expectations of a tapering of the Fed's asset-buying program, the ECB also took "the unprecedented step of giving forward guidance in a rather more specific way than it ever has done in the past" (Draghi 2013a). It thus stated that its monetary policy will remain "accommodative as long as necessary," and that the policy rate is expected "to remain at present or lower levels for an **extended period of time**" [emphasis added]. This 'first-generation' qualitative EFG aims "to inject a downward bias in interest rates for the foreseeable future" (Draghi 2013a).[50] In the absence of a precise time frame, Draghi (2013b) subsequently clarified that the medium-term inflation outlook is a critical element. Interest rates will thus remain low "as long as it is our assessment that inflation remains subdued, as indicated by weak economic activity, weak credit and weak monetary aggregates."

3.3.3 Effectiveness of extraordinary forward guidance and other unconventional policies

Views about the impact of UMPs vary. Critics contest the prudence of these actions, notably QE, and some even question whether QE works at all. Still, the evidence from a growing number of studies to date suggests that EFG and QE—the two main UMPs—have provided significant additional stimulus at the ELB, supporting deficient demand.[51] And, by all accounts,

[50] For a more detailed exposition of the ECB's view on forward guidance, see Praet (2013).

[51] Note that a fuller assessment of the effectiveness of UMPs will also have to take into account how well central banks manage the 'exit' from these policies. Moreover, UMPs have potential costs and risks that could lead to financial stresses and adverse consequences for central bank credibility and independence (see Section 4.1 and Santor and Suchanek, 2013).

these policies have generally been more effective in shaping expectations about interest rates and the economic outlook when clearly and credibly communicated.

Liquidity and credit facilities to stabilize financial markets and restore intermediation

Selective actions (page 25) to support the flow of credit and restore the functioning of impaired financial markets are generally judged to have been quite effective (IMF 2013a). For example, the ECB's three-year LTROs were used by euro-area banks extensively: they encouraged a significant decline in interest rate-premiums, reduced systemic risk and likely mitigated a credit crunch. Similarly, the OMT program helped stabilize—albeit at still relatively high levels—borrowing costs in countries under stress (e.g., Italy and Spain); and this, remarkably, despite the fact that the facility has yet to be activated. Of particular note here is that Draghi's July 2012 statement that the ECB would do "whatever was necessary to preserve the euro" led to a narrowing of spreads and a rebound in investor confidence even before the introduction of the OMT two months later. ***This illustrates the value of clear, credible communications, especially during extraordinary times.***

Quantitative Easing (QE) through large-scale asset purchases (LSAPs)

The IMF (2013a) also reports the results of empirical studies on the effectiveness of quantitative easing—LSAPs (primarily of government bonds but also MBS). The evidence shows that LSAPs significantly reduced long-term yields, especially following early announcements at the peak of domestic market turmoil and severe macroeconomic risks.[52]

They also improved economic conditions, although the size of the impact is less certain—for a number of reasons.[53] Most studies find that GDP growth increased by about 2 percentage points at the peak in the United States and the United Kingdom *(*generally lasting around two years). Effects on inflation are as large as 3.6 percentage points. However, the range for both estimates is very wide (IMF 2013a, Appendix Table 3).[54] Overall, concludes the IMF, ***LSAPs seem to have been effective*** when the amounts purchased relative to the size of the target market were large and ***when the objectives of these programs were communicated in a timely, transparent and clear fashion***.

[52] The IMF reports that the Fed's announcement of LSAP1 against a backdrop of acute uncertainty had a materially larger impact than that of LSAP2—a trend that seems to have continued with later programs, notes the IMF. (LSAP1 ran from November 2008 to November 2009; LSAP2 from November 2010 to June 2011.) Under the current open-ended LSAP3 program (in place since September 2012), yields on 10-year Treasuries traded in a range as low as 1.5 per cent to 2 per cent from the autumn of 2012 to May 2013, and mortgage rates fell to record lows. However, with the Fed signalling in May a prospective slowing in the pace of its QE, 10-year yields rose by more than 100 basis points from May to September 2013.

[53] White (2012) also advances several reasons why ultra-easy monetary conditions may not be effectively transmitted to the economy and why private sector demand may not respond in such a way as to stimulate economic activity and reduce unemployment. Williams (2013) adds that there is considerable uncertainty regarding the effects of balance sheet policies on broader financial conditions, economic activity and inflation, and that the evidence suggests that such uncertainty is materially larger than that of conventional monetary policy.

[54] Joyce, Tong and Woods (2011) find evidence that the BoE's QE program had a peak effect of 1 1/2 to 2 per cent for real GDP and 3/4 to 1 1/2 per cent for inflation.

Extraordinary forward guidance (EFG)

Empirical evidence broadly supports the view that guidance affects long-term interest rates in normal times. Thus, the literature on the experience with guidance before the crisis finds that central bank statements affect not only current interest rates but also their future path in a way that cannot be attributed to the change in the target policy rate alone.[55]

However, changes in expected interest rates are not necessarily evidence of the effectiveness of forward guidance. Such guidance usually provides information not only about a central bank's future policy approach, but also about its views on output and inflation. In measuring the effectiveness of guidance per se*,* only the first is relevant. The difficulty lies in distinguishing whether expectations about future policy rates shift because of changes in market beliefs about the central bank's 'reaction function' or because of changes in expected economic conditions. This problem may be particularly serious at the ELB, as central banks are likely to announce a prolonged period of low interest rates alongside a more pessimistic view for output and inflation.

That said, studies that control for the relationship between expectations about the economic outlook and long-term interest rates suggest that EFG has been at least partly effective during the crisis. For example, Swanson and Williams (2012) show that the sensitivity of long-term government bond yields to macroeconomic news diminishes after the use of EFG. Woodford (2012) also provides broad evidence that the BoC's *conditional* forward guidance, as well as the "extended period" language of the Fed, lowered expectations of future interest rates, as measured by the Overnight Index Swap (OIS). For example, the one-year OIS decreased by about 10 basis points after the April 2009 BoC statement. Similarly, the two-to-five year OIS decreased by around 10 basis points after the August 2009 and January 2012 announcements by the Fed. The IMF (2013a) considers these two dates as particularly suitable for a study of EFG, given that they did not contain other policy announcements. For the December 2012 Fed announcement of thresholds, it is more difficult to disentangle the (potentially larger) direct effects of EFG, concludes the IMF. Yellen (2013a), however, cites the New York Fed's *Survey of Primary Dealers,* which shows that the evolution of the Fed's EFG—especially the new thresholds—did shift the market's view of how forceful the Fed intends to be in supporting the recovery. Finally, Raskin (2013) reports that the 'date-based' EFG used between August 2011 and December 2012 led to a statistically significant and economically meaningful change in investors' perceptions of the Fed's policy reaction function.

Evidence is also growing that ***EFG is more effective in lowering long-term bond yields when it clearly communicates a break from 'business as usual,' i.e., a shift towards keeping interest rates low for a longer period than would have been warranted by the usual policy rule, or 'normal' reaction function*** (Woodford 2012; Swanson and Williams 2012; and IMF 2013a).

[55] See, for example, Gurkaynak, Sack and Swanson (2005) and Campbell et al. (2012).

4. FUTURE CHALLENGES FOR MONETARY POLICY AND CENTRAL BANK COMMUNICATIONS

"Extraordinary expansive monetary policies, like any medication, may have side effects." J. Viñals

"Accommodative monetary policy can buy time, but it is a policy best suited to filling in a temporary hiatus in demand, not a long-lived shortfall: it is a bridge, not a pier." C. Bean

4.1 Monetary policy challenges

With policy rates at the lower bound, UMPs were deployed as a temporary tool during the crisis to help major advanced economies (and the world economy more broadly) avoid some of the worst deflation–depression scenarios and to support the recovery in output and employment. However, such extraordinary policies continue to be applied five years on. The associated unprecedented expansion in central bank balance sheets and the 'low-for-long' interest rates have been a cause for concern, as they entail risks and unintended, undesirable consequences that need to be managed.

Policy-makers thus face three major issues, with one overarching consideration—how to strike a balance between the risks to the recovery from exiting UMPs too early, and the risks to economic and financial stability from exiting too late. These issues are:

Potential risks of protracted ultra-easy monetary conditions

Increased liquidity in the financial system could lead to inflationary pressures and even the re-emergence of imbalances ('bubbles') down the road, endangering macroeconomic and financial stability. In particular, a perception of continuing 'low-for-long' interest rate environment could encourage excessive risk-taking and distort economic behaviour in the financial, corporate and household sectors (Carney 2010; IMF 2013a).

Challenges to central bank credibility and autonomy[56]

Central banks risk being seen as doing 'too much, for too long' in areas that are outside their monetary policy remit. For example, large purchases of government bonds by central banks are often seen as financing government deficits, and thus blurring the lines between monetary and fiscal policy. Such perceptions could undermine central bank credibility and independence, and de-anchor inflation expectations. Although monetary authorities have taken pains to position unconventional policy actions squarely within their mandates and to communicate this clearly to the public, markets and elected representatives, fending off criticism may prove more difficult the longer UMPs are in use.

[56] Central bank independence issues are reviewed in detail in OMFIF and Ernst & Young (2012). They are also pondered, at some length, in Passacantando (2013); and discussed briefly in White (2012), IMF (2013a), and Santor and Suchanek (2013).

'Exit' from exceptionally easy monetary policy could prove challenging

In view of the above risks and concerns, it makes sense that central banks that have made extensive use of UMPs since the crisis begin to withdraw this extraordinary monetary stimulus as their economies strengthen and that, in due course, they also normalize policy rates. The great challenge, particularly in the absence of historical precedents in this area, is how to steer a course back to normality in a well-timed, orderly fashion that mitigates economic and financial disruptions.[57]

4.2 Monetary policy and central bank communications: the next chapter

Clearly, there are fundamental policy issues that will preoccupy central banks in the period ahead, as they seek to map out a strategy for a gradual normalization of the monetary policy stance. Communications will play an important role in the execution of such plans.

Already, forward 'threshold' guidance from the Fed and the BoE (reinforced through speeches, parliamentary appearances, etc.) aims to condition expectations and to prepare markets for incremental adjustments in monetary stimulus, contingent on progress on the economic front. Forward guidance is just one component of a communications approach to support policy normalization. Looking ahead, there will be a need for other communications, as policy views crystallize regarding the sequence and the mechanics for the withdrawal of stimulus, the adjustment in policy rates, the eventual shrinking of central bank balance sheets and so on.[58]

All to say, the next chapter in monetary policy and monetary policy communications is just beginning.

5. CONCLUSION

This paper has traced the trend across major central banks over the past two decades toward enhanced transparency and communications. Sparked by the advent of inflation targeting in the early 1990s, this movement has accelerated since the 2007–09 crisis, fostering further striking advances in monetary and financial stability communications, including the emergence of extraordinary forward guidance (EFG) as a distinct policy tool under unconventional monetary policies (UMPs). A deeper appreciation of the monetary policy–financial stability nexus and extensive use of UMPs have provided the main thrust to these developments, moving central banks further along the road from secrecy to transparency, from open-market operations to 'open-mouth policy.'

Increasing the effectiveness of UMPs required, in addition to EFG, broader communications to describe and relate these policies credibly to the mandated objective(s) of central banks. The

[57] Murray (2013) lists several reasons why exit from UMPs may not be as disruptive a process as some fear, *inter alia,* critically because of "the emphasis now put on clear communication and the increased awareness of the importance of transparency. The unwinding of UMPs should be one of the best-telegraphed events in monetary history."

[58] The Fed published *Exit Strategy Principles* in 2011 (FOMC 2011a), outlining the sequence of stimulus withdrawal. These Principles were confirmed in late 2012 (Bernanke 2012), following the adoption of explicit threshold guidance.

breadth and frequency of data releases and economic/financial commentaries have thus expanded, and similarly the range of communication events and products. Greater emphasis has also been placed on clarity and plain language. And advances in web technology and other electronic media have been leveraged for broader reach and for quick, efficient message delivery.

Financial stability communications, previously focused on enhancing public awareness of financial system developments and issues, have since the crisis shifted to identifying, assessing and communicating key risks and vulnerabilities, with a view to limiting financial and economic instability. Where central banks have a *shared* remit for financial stability, this paper has highlighted the challenges and limitations of central bank speak, and also the need to share information, and to coordinate and safeguard confidential information provided by the other partners. Readiness with an appropriate communication plan to explain crisis measures to the public in a timely, forthright manner has also been underlined, and similarly the need for clear, high-quality communications, with less jargon and technical terminology.

Exceptionally easy UMPs (extraordinary liquidity and credit facilities, quantitative easing, and EFG) were employed in the depths of the Great Recession to restore the functioning of markets, support deficient demand and kindle a recovery in output and employment. Evidence from a number of studies suggests that UMPs have generally been more effective when their objectives were communicated in a timely, transparent and credible fashion. EFG, in particular, has evolved over time, becoming more explicit and dependent on specific economic outcomes (thresholds), as policy-makers have sought to provide greater clarity to enhance its efficacy, and to set up market expectations for measured adjustments in policy rates conditional on economic progress.

In connection with UMPs, policy-makers currently face three major interrelated issues: risks from the protracted use of highly accommodative monetary conditions; potential pressures on central bank credibility and independence; and challenges associated with exit from UMPs and policy normalization. Communications will play an important part in supporting the execution of related policies with timely, clear and consistent messaging.

Further ahead, there may be other issues and questions for policy-makers to contemplate. For example: Will the practice of forward guidance continue after policy rates normalize? Should it? If so, in what form? Are there any institutional changes that could, in some cases, facilitate a more effective delivery of central bank messages?

Central banking will no doubt evolve further in the future, and so too will the demands for transparency and accountability. Policy will continue to drive communications, but skillful, consistent, judicious communications can be counted on to enhance the effectiveness of policy, fulfill requirements for due diligence and help deflect potential threats to central bank credibility.

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