ARTICLES

CENTRAL BANK COMMUNICATION IN PERIODS OF HEIGHTENED UNCERTAINTY

Communication on, and transparency in, monetary policy – its mandate, strategy and decision-making – have become key elements of modern central banking. Communication is an essential tool for managing the expectations of the private sector. In doing so, it makes a significant contribution to enhancing the effectiveness and credibility of monetary policy. This is of particular importance in periods of heightened uncertainty where it is vital that the general public and participants in financial markets are given clear information on the central bank's primary mandate of ensuring price stability, the state of the economy and the rationale behind monetary policy decisions. With this in mind, the recent period of financial crisis and the associated economic downturn are a powerful illustration of the importance of appropriate communication. Since the start of the crisis in August 2007, the ECB has significantly intensified its communication with the general public and specialised audiences, explaining in detail the need for, and the workings of, its enhanced credit support measures. Furthermore, during these difficult times, the ECB has had to communicate clearly that the exceptional policy measures it has taken were fully consistent with its mandate of maintaining price stability and entailed a firm commitment to their being unwound once risks to price stability emerge and economic and financial conditions normalise. The ECB's additional communication efforts, coupled with long-standing transparency in its monetary policy framework, have supported the private sector's understanding of the ECB's monetary policy response to the financial crisis and economic downturn, both in terms of conventional interest rate policy action and in terms of liquidity management. Moreover, this combination has helped to keep long-term inflation expectations firmly anchored at levels consistent with the ECB's definition of price stability.

1 INTRODUCTION

Over the last few decades, central banks worldwide have become increasingly transparent about their monetary policy-making processes. Part of the reason for this development has been the trend towards central bank independence and the corresponding increase in the reporting obligations. However, most central banks have gone far beyond strict legal requirements in their openness and transparency. The additional communication efforts can largely be attributed to an increasing awareness that transparency and communication contribute significantly to the effectiveness of monetary policy by reducing uncertainty and by influencing private sector expectations.[1] Since long-term interest rates – ignoring possible term and liquidity premia – reflect current and expected future short-term rates, monetary policy can increase its leverage over long-term rates by providing guidance to the private sector by means of a transparent and credible monetary policy framework.

Effective communication becomes even more necessary in periods of heightened uncertainty when the general public is confronted with a loss of confidence in the economy and the functioning of markets becomes severely impaired. The recent economic history has shown a few episodes in which financial distress has quickly affected the state of confidence and the real economy more broadly: the aftermath of the Asian crisis in the late 1990s, the bursting of the "dot-com bubble", the geopolitical tensions that followed the tragic events of 11 September 2001 and, most prominently, the recent episode of global financial crisis. While such situations may pose unprecedented communication challenges to central banks, this article shows that in these circumstances central bank communication, coupled with a stable and clear monetary policy strategy, plays a pivotal role in restoring trust and preserving confidence among participants in the financial markets. The focus is therefore on communication with expert audiences in financial markets, despite the fact that central banks worldwide have – as has the ECB – intensified their communication efforts with the general

1 See e.g. the article entitled "Expectations and the conduct of monetary policy" in the May 2009 issue of the Monthly Bulletin.

public as well, in particular since the start of the financial crisis in August 2007. Section 2 discusses the role of central bank communication in periods of heightened uncertainty from a conceptual perspective. Section 3 reviews the ECB's key external communications during the recent financial crisis. Section 4 offers some selected empirical evidence on the impact of ECB communications on the financial markets during this period, and Section 5 summarises the article and draws conclusions.

2 THE ROLE OF CENTRAL BANK COMMUNICATION IN PERIODS OF STRESS

In normal times, central banks utilise a variety of communication channels to familiarise the public, and in particular financial market participants and media representatives, with the way they think and operate. Most central banks carefully explain their mandate and the strategy with which they intend to achieve their policy objective. Being clear on its objectives and how it will pursue them helps a central bank to ensure that monetary policy and its systematic response to economic shocks is better understood by the private sector. Together with the frequent disclosure of the central bank's views on the state of the economy and how it is likely to develop, and the assessment of the monetary policy stance, transparency in the monetary policy strategy is instrumental in fostering credibility and in increasing the predictability of monetary policy actions.[2] As a consequence, transparency and effective communication can help to align market expectations with the views of the central bank and can facilitate the central bank's task of maintaining price stability.

The capacity of central bank communication to serve as a focal point for private expectations can become particularly valuable in the event of major shocks and market disruptions. In periods of stress when uncertainty about the economic outlook rises and markets may become disorientated, effective central bank communication is particularly important for a realignment of expectations regarding the future course of monetary policy and for conveying a sense of direction. For example, empirical evidence shows that additional information supplied by the central bank appears to help participants in financial markets primarily in times of considerable uncertainty, i.e. when there is a high degree of noise surrounding information held by market participants.[3] One of the reasons behind the recently increased interest in central bank assessments and communication on the part of market participants is the sharp increase in uncertainty and the abrupt drop in confidence that financial markets have experienced since the start of the financial crisis in August 2007. Uncertainty about the solvency and the health of financial institutions not only brought interbank trading to a virtual halt in the midst of the crisis in autumn 2008, but also seems to have led to a widespread increase in the value attached to information released by the central bank (see the box below).

2 See e.g. T. Blattner, M. Catenaro, M. Ehrmann, R. Strauch and J. Turunen, "The predictability of monetary policy", *Occasional Paper Series,* No 83, ECB, March 2008, and A. S. Blinder, M. Ehrmann, M. Fratzscher, J. De Haan and D. Jansen, "Central bank communication and monetary policy: A survey of theory and evidence", *Journal of Economic Literature*, 46(4), 2008, pp. 910-945.

3 See M. Ehrmann and M. Fratzscher, "Social value of public information: testing the limits to transparency", *Working Paper Series*, No 821, ECB, October 2007.

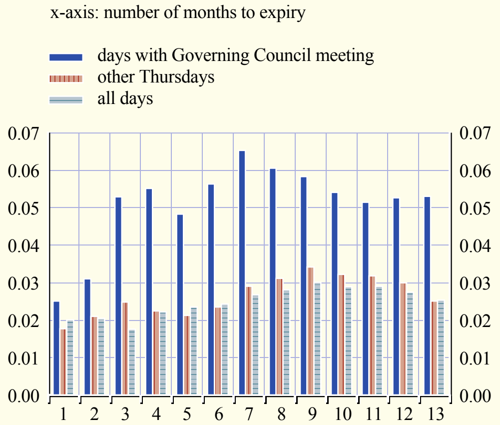
Box

FINANCIAL MARKET RESPONSE TO THE ECB'S COMMUNICATION DURING THE FINANCIAL CRISIS

The financial turmoil is a telling illustration of the increasing value that market participants may attach to the coordinating role of central bank communication in periods of heightened uncertainty. To demonstrate this, the chart compares the differences in financial markets' responses to the ECB's press conferences before and after the start of the financial turmoil in August 2007.[1] To this end, the absolute average daily changes in three-month EURIBOR futures were calculated for the two years preceding the financial crisis and for the two years since the eruption of the crisis in August 2007. Using the absolute daily change implies that the aim is only to quantify the difference in the magnitude of the response to communication, and not its desired impact. The absolute daily change is calculated as the difference between the closing values of two consecutive days.[2]

Difference between the average absolute daily changes in three-month EURIBOR futures before and after the start of the crisis

(percentage points)



Sources: Reuters and ECB calculations.
Note: Difference between the mean absolute daily return in the periods from August 2005 to July 2007 and from August 2007 to July 2009.

The absolute daily change approximates, to a certain extent, the volatility of financial markets. To distinguish between a general increase in the movements of financial markets since the advent of the crisis and an increase in market movements related to the ECB's press conference, the changes were calculated for the days on which an interest rate-setting meeting of the Governing Council was held, then for all other Thursdays to control for weekday effects, and thereafter for all days.

Three interesting findings emerge from the analysis presented in the chart. First, financial market movements after the start of the crisis in August 2007 have generally been more pronounced than before. This can be seen from the fact that the bars referring to "all days" are in positive territory. Second, the size of the response of three-month EURIBOR futures to the ECB's monthly press conference has risen considerably more markedly than the general increase in market volatility since August 2007, which can be seen in the height of the bars indicating "days with Governing Council meetings".[3] This is particularly true for maturities over the three-month horizon

1 For a more detailed discussion of the impact of the ECB's press conference on financial markets, see M. Ehrmann and M. Fratzscher, "Explaining monetary policy in press conferences", *International Journal of Central Banking*, 5, 2009, pp. 41-84.

2 As the analysis is not based on intraday data, the results may contain financial market pricing responses to news not related to the ECB's press conference. In total, there were 59 other euro area-related statistical reports that were released on Governing Council meeting days in the period under review. For 49 of them, a Bloomberg survey capturing the mean expected value was available. It is possible to use this to measure the surprise component of each of these releases. Based on this measure of expectations, markets were surprised on four occasions during this period. However, a look at the intraday volatility on these days shows that no extraordinary trading activity surrounded these releases.

3 To some extent, the noticeable response of markets to the Governing Council meetings at which interest rates are set may also be related to the simultaneous announcement of non-standard policy measures, such as supplementary longer-term refinancing operations or the purchases of covered bonds. See Section 4 of this article for a more detailed analysis of the financial market response to the ECB's communication on selected non-standard policy measures.

where uncertainty is generally highest. The large difference in the financial market response to the ECB's press conference before and after the start of the crisis suggests that markets have assigned more weight than before to the Governing Council's view on the economic outlook and risk assessment in the period after the onset of the financial turmoil. Moreover, the large market movements on Governing Council meeting days indicate that participants in financial markets have indeed received considerable amounts of relevant information from the central bank during this period. Finally, this difference in the financial market response is lowest for the EURIBOR futures that are closest to expiry (i.e. will expire in one or two months). These futures are usually prone to changes when markets are uncertain about the next interest rate decisions. However, the fact that markets have reacted to the ECB's announcements in a relatively similar manner before and after the start of the crisis in these segments suggests that the high degree of predictability in the ECB's interest rate decisions has remained virtually unchanged during the crisis.[4]

4 This result is confirmed when comparing the average surprise element as calculated from the difference between the Reuters poll and the actual decision for the two-year period before and after the onset of the financial crisis. The difference is marginal and accounts for 0.0184 basis points. See also the article entitled "The predictability of the ECB's monetary policy" in the January 2006 issue of the Monthly Bulletin.

Timely and precise central bank communication is crucial in these circumstances. In the same way that market participants have to, policy-makers need to conduct their analyses and communicate their reasoning and intentions under highly uncertain conditions in which historical regularities may not hold and increased volatility may cloud the information coming from the markets. The central bank has to emphasise the considerable degree of uncertainty that surrounds its own assessment of the economic outlook in such testing circumstances. It is essential that the institution recognises the limitations of its analytical tools in these periods so as to avoid creating markets' over-reliance on its assessment of the direction of the economy. At the same time, given that financial markets react almost in real time to central bank announcements, policy-makers have to make a careful choice as to the type and scope of information they wish to convey to market participants.[4]

There are two key aspects to communication under such circumstances. The first relates to the central bank's own intentions. Periods of high stress and uncertainty may require exceptional policy responses that need to be communicated and explained to market participants in a timely and coherent manner. In the absence of such communications, markets may be unclear about the rationale underlying exceptional policy actions. In an economic environment characterised by a large degree of uncertainty, the central bank should not add another layer of uncertainty by introducing potential ambiguity in the monetary policy measures it implements in response to the extraordinary economic developments. Therefore, in difficult times the central bank needs to be very clear and convincing in the way it explains the need for, and the workings of, exceptional policy measures. This is in contrast to normal times, when consistent behaviour on the part of the central bank over time is key to maintaining a high degree of credibility. In periods of uncertainty, credibility

4 Morris and Shin, as well as Amato et al., argue that central bank communication can also be welfare-reducing when market participants assign too much weight to public information to the detriment of private information. In particular, noisy or premature information can lead markets away from fundamentals and towards an inferior equilibrium. (See S. Morris and H.S. Shin, "Social Value of Public Information", *American Economic Review*, 92(5), 2002, pp. 1521-1534, and J.D. Amato, S. Morris, and H.S. Shin, "Communication and Monetary Policy", *Oxford Review of Economic Policy*, 18(4), 2002, pp. 495-503). However, taking the same model as Morris and Shin, Svensson argues that central bank transparency is almost always beneficial because the signal-to-noise ratio of central bank information is bound to be relatively high (see L.E.O. Svensson, "Social Value of Public Information: Morris and Shin (2002) Is Actually Pro Transparency, Not Con", *American Economic Review*, 96(1), 2006, pp. 448-451).

also depends on the way policy-makers explain the rationale underlying their bold policy actions. Clarity in the central bank's intentions and objectives provides a first anchor of stability and an important sense of direction for economic agents. This is particularly true for periods of heightened uncertainty.

The second aspect of key importance in difficult times is the unequivocal reiteration by the central bank of both its commitment to the primary objective of maintaining price stability over the medium term and its determination to unwind exceptional policy measures once conditions return to normal. There are a number of reasons why communication of the central bank's unwavering adherence to its medium-term objective is of particular importance in times when market expectations concerning the future course of monetary policy might become disorientated. One of them is that volatile expectations may be an independent source of macroeconomic instability. In the event that medium-term inflation expectations become "de-anchored" from the central bank's objective as a result of a major adverse shock, inflationary or deflationary risks are likely to increase. For example, an expected increase in the general level of prices tomorrow can exert upward pressure on prices today through a variety of channels, including higher wage claims or the revaluation of asset prices. Once inflationary expectations become entrenched in agents' perceptions, they can become self-reinforcing until some event or policy action succeeds in breaking the impasse. In fact, empirical evidence suggests that the "Great Inflation" in the United States during the 1970s occurred primarily because an accommodative monetary policy led to self-fulfilling increases in expected inflation.[5] In a similar vein, well-anchored medium to long-term inflation expectations become crucial in the face of persistent downside risks to price stability, especially with short-term nominal interest rates at very low levels. There is already a large body of research highlighting the effectiveness of an open and credible commitment to the price stability objective in preventing a self-reinforcing deflationary spiral.[6]

Therefore, the communication of the central bank's commitment to achieving its price-stability objective becomes a powerful instrument to prevent private sector expectations from diverging from that objective in periods of high uncertainty. In particular, the announcement of a precise numerical target or a quantitative definition of the central bank's price-stability objective provides a focal point for the general public's long-term inflation expectations and helps economic agents to form their expectations more efficiently and accurately than they could in the absence of such a quantified objective. In this way, a credible quantitative objective ensures predictability even in times when markets are characterised by increased volatility and nervousness, and can serve as an anchor of stability in periods of disorientation and stress. In fact, there is compelling empirical evidence which demonstrates that announcing a precise quantitative objective reduces the degree to which inflation persists, lowers the responsiveness of expectations to other macroeconomic news and helps to anchor them at levels consistent with the central bank's objective.[7]

5 See e.g. S. Leduc, K. Sill and T. Stark, "Self-fulfilling expectations and the inflation of the 1970s: Evidence from the Livingston Survey", *Journal of Monetary Economics*, Vol. 54, Issue 2, 2007, pp. 433-459.

6 See e.g. G.B. Eggertsson and M. Woodford, "The zero bound on interest rates and optimal monetary policy", *Brookings Papers on Economic Activity*, Vol. 34, Issue 1, 2003, pp.139-235, and K. Adam, and R. Billi, "Discretionary monetary policy and the zero lower bound on nominal interest rates", *Journal of Monetary Economics*, Vol. 54, Issue 3, 2007, pp. 728-752.

7 A.T. Levin, F.M. Natalucci and J.M. Piger, "Explicit inflation objectives and macroeconomic outcomes", *Working Paper Series*, No 383, ECB, August 2004. See also D. Johnson, "The effect of inflation targeting on the behaviour of expected inflation: evidence from an 11 country panel", *Journal of Monetary Economics,* Vol. 49, Issue 8, November 2002, pp. 1521-1538, and L. Benati, "Investigating inflation persistence across monetary regimes", *Quarterly Journal of Economics*, 123:3, August 2008, pp. 1005-1060.

3 THE ECB'S COMMUNICATION SINCE THE ONSET OF FINANCIAL TURMOIL

The profound changes in the economic and financial environment experienced over the past two years have called for determined policy responses supported by timely and well-crafted communication. In close cooperation with the NCBs of the Eurosystem, the ECB has intensified its communication with specialised audiences and the public at large with a view to supporting the effectiveness and efficiency of monetary policy in times of heightened uncertainty.

The ECB's long-standing transparency with regard to its monetary policy framework has been helpful in structuring the external communication during the crisis. In particular, communication concerning the assessment of risks to price stability under the two pillars of the monetary policy strategy has been more useful than ever in keeping inflation expectations firmly anchored[8] and in providing an in-depth explanation of policy decisions. The economic analysis has been instrumental in communicating the swift reversal in the inflationary trend for the euro area amid heightened uncertainty regarding the outlook for economic growth as a result of the intensification of the financial turmoil and its spillover to the real economy. The monetary analysis has helped to maintain a medium-term perspective. It has also helped to improve the understanding of and explain developments in monetary aggregates, banks' balance sheets, asset prices and credit flows, all of which have been of crucial interest, given the financial origin of the economic downturn.[9]

COMMUNICATION ON STANDARD AND NON-STANDARD POLICY MEASURES

The implementation of non-standard measures in response to the tensions in financial markets brought new communication challenges. Normally, communication on the Eurosystem's open market operations is mainly addressed to technical and specialised audiences. When the financial turmoil erupted in the summer of 2007 and the ECB reacted decisively to the strains in money markets by conducting a series of additional refinancing operations, there was a clear need to inform the general public and, in particular, financial market participants about the exceptional operations in a more systematic and comprehensive way. To this end, the ECB's website was continually updated and enhanced, and a host of other communication channels were employed to make sure that the measures taken by the Eurosystem to contain the macroeconomic effects of the crisis were well understood. In particular, at a time when upward risks to price stability were still prevailing in the euro area, it was important to convey that the measures taken to alleviate the strains in money markets did not imply an easing of the policy stance and were fully consistent with the pursuit of price stability. These communication tools included frequent mass media interviews and speeches by members of the Governing Council, as well as frequent announcements of monetary policy operations in real time. An increase in the number of visits to the relevant pages of the ECB's website indicated that the demand for information on these topics was indeed increasing at a rapid pace.

Since the intensification of the financial crisis in September 2008, and in a context of a rapid moderation of inflationary pressures, the rate on the main refinancing operations was lowered by 325 basis points. In parallel, the ECB entered into a non-standard policy mode. These measures were taken to enhance the flow of credit above and beyond what could be achieved through policy interest rate reductions alone. To facilitate communication, the ECB defined the range of non-standard measures taken as its "enhanced credit support" approach.[10] This approach comprises five main building blocks: (i) a fixed rate tender procedure with full allotment against collateral for all main refinancing operations and longer-term refinancing operations since October 2008;

8 See the box entitled "Results of the ECB Survey of Professional Forecasters for the fourth quarter of 2009" in this issue of the Monthly Bulletin.

9 See the article entitled "Monetary analysis in an environment of financial turmoil" in this issue of the Monthly Bulletin.

10 See, in particular, the speeches by the President of the ECB on 13 July 2009 in Munich, on 22 August 2009 in Jackson Hole and on 4 September 2009 in Frankfurt.

(ii) the temporary expansion of the list of assets eligible for use as collateral in Eurosystem refinancing operations since October 2008; (iii) the lengthening of the maturities of the ECB's refinancing operations to up to one year; (iv) the provision of liquidity in foreign currencies, particularly in US dollars; and (v) the outright purchase of euro-denominated covered bonds since July 2009 to revitalise a segment of the market that was particularly affected by the financial turmoil. In addition, the ECB emphasised the clear distinction between its policy actions and the government support measures, while stressing their complementarities in alleviating the strains in financial markets.

Two key messages were strongly emphasised in the ECB's communication with financial markets and the general public. The first message stressed that all measures were designed to ensure the effective transmission of monetary policy and to provide enhanced support for credit provision to households and companies in the euro area at reasonable rates with a view to preserving price stability over the medium term. The second message concerned the resolution mechanism. In view of the importance of the banking channel in providing credit to the euro area economy, the ECB's policy response so far has been tailored to the specific nature of the euro area's financial architecture. Unlike in some advanced economies where a more market-based financial system prevails, securing a high degree of refinancing possibilities for banks is critical for ensuring the flow of credit to the non-financial sector.

COMMUNICATION ON THE EXIT STRATEGY

While intensified communication on the economic outlook and expected price developments contributed to a firm anchoring of inflation expectations over the course of the crisis, the risk of a possible de-coupling of private expectations also arose from the manifold measures taken to alleviate the strains in financial markets. In an environment of extremely low interest rates and abundant liquidity, markets need to be reassured of the central bank's commitment to unwind the non-standard measures once conditions return to normal. Retaining an accommodative policy for too long risks unleashing inflationary pressures in the future, and paves the way for future imbalances in the financial markets.

An important element of the ECB's communication strategy since the announcement of its "enhanced credit support" approach has therefore been to convey to the public that preparing an exit strategy is an integral part of the ECB's crisis management, thereby stressing the central bank's commitment and determination to preserve price stability over the medium term. The possibility of unwinding the extraordinary monetary stimulus had been anticipated – and to a certain degree – built into the design of non-standard measures. The operational framework is well-equipped to facilitate this unwinding with a varied and flexible set of instruments. At the same time, to avoid premature expectations of an exit, communication stressed that having an exit strategy in place was not to be confused with activating this exit.

COMMUNICATION AND INFLATION EXPECTATIONS

Taken together, the ECB's communication efforts and its actual actions since the onset of the financial turmoil in August 2007 have largely contributed to keeping longer-term inflation expectations in the euro area firmly anchored at levels consistent with the ECB's definition of price stability. In this respect, a particular communication challenge arose as inflation rates were expected to turn temporarily negative in the summer of 2009, owing mainly to base effects related to developments in energy prices. To contain an unwarranted downward adjustment of the medium to longer-term inflation expectations to a falling inflation rate, the ECB publicly highlighted the need to distinguish between disinflation and deflation. In this context, the ECB made clear that episodes of disinflation are welcome, if triggered by a fall in commodity prices, for instance, which can be associated with cost-saving gains on the supply side. A deflationary process, by contrast, is a generalised, persistent and self-reinforcing decline in a broad set of prices with adverse consequences on output and prices. By emphasising – already in early 2009 – that the temporarily negative inflation rates expected for the summer of 2009 should not be confused with outright deflation, the Governing Council ensured that long-term inflation expectations remained firmly anchored at levels consistent with price stability.

4 THE IMPACT OF THE ECB'S COMMUNICATION ON SELECTED NON-STANDARD POLICY MEASURES

The intensification of the ECB's external communication since the onset of the crisis in August 2007 has had a discernible impact on financial markets. As illustrated in Section 2, markets seem to have been more responsive to the ECB's press conferences during the crisis than appears to have been the case before. This section of the article illustrates the impact and effectiveness of the ECB's communication on the announcements of the additional longer-term refinancing operations.

Since August 2007, the ECB has launched a series of additional longer-term refinancing operations that were aimed at supporting the normalisation of the functioning of euro money markets. In a first step, the ECB lengthened the maturities of these operations, and eventually announced its decision on 7 May 2009 to conduct longer-term refinancing operations with a maturity of one year. These operations were typically announced via a press release prior to their execution. The time-lag between the announcement and implementation makes it possible to identify the reactions of the financial market to the two events. If markets were to respond to the announcement of the additional refinancing operations, they should, on average, move more on these days than on days without such announcements. Indeed, Chart 1 suggests that the announcements of the additional operations had a significant impact on the euro money markets, over and above the impact of the ECB's communication on its standard monetary policy actions. Chart 1 shows the absolute average daily change in three-month EURIBOR futures on selected days since August 2007. Money market movements were significantly more pronounced on days with announcements of monetary policy actions, including both standard and non-standard measures, than on days without such communications.[11] This holds true for the entire maturity spectrum. Moreover, the EURIBOR futures market seems to have been even more strongly reactive on the days when the ECB announced its additional longer-term refinancing operations, in particular for horizons from six to ten months.[12]

In general, the objective of any additional longer-term refinancing operation is to alleviate the tensions in the money market that have led to overly high interest rates. In other words, if successful, additional longer-term refinancing operations should help in bringing down interest rates along the maturity spectrum to a level that is consistent with the normal transmission of the ECB's monetary policy stance.[13] Timely and credible announcements of such operations can support this objective by frontloading part of the envisaged adjustment, thereby making the impact more effective. Chart 2 shows that this was indeed the case. Using the relative change,

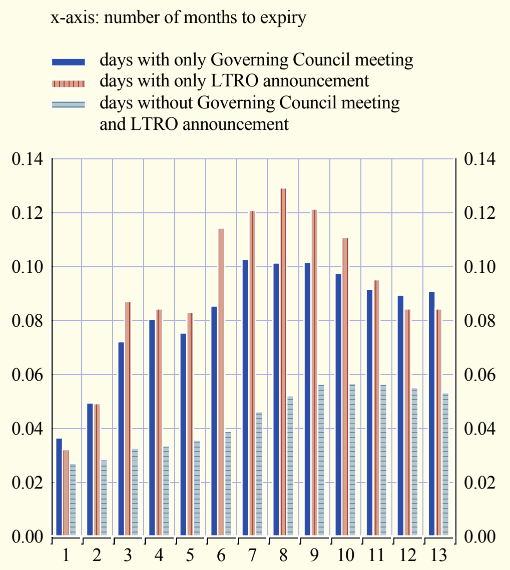
11 In total, the ECB announced additional refinancing operations on 12 occasions. Five of them occurred on days with a Governing Council meeting. To isolate the effects of the ECB's announcements of additional longer-term refinancing operations, the category "days with only LTRO announcement" considers solely the seven days on which an additional longer-term refinancing operation alone was announced. The decision to conduct longer-term refinancing operations with a maturity of one year was announced on the day of a Governing Council meeting.

12 As the analysis is not based on intraday data, the results may contain financial markets' pricing responses to news not related to announcements by the ECB. On days with announcements of longer-term refinancing operations, markets have been surprised on only one occasion (22 August 2007). However, the intraday volatility on that day showed that there was no extraordinary trading activity surrounding this release. See footnote 2 in the box for a description of the calculation of the surprise element.

13 This is not, however, the only criterion for success: in the first place, and fully in line with the objective underlying the enhanced credit support policy, the operations aimed to lengthen the liquidity horizon of banks, thereby encouraging a continuous flow of bank credit to the economy.

Chart 1 Average absolute daily change in three-month EURIBOR futures

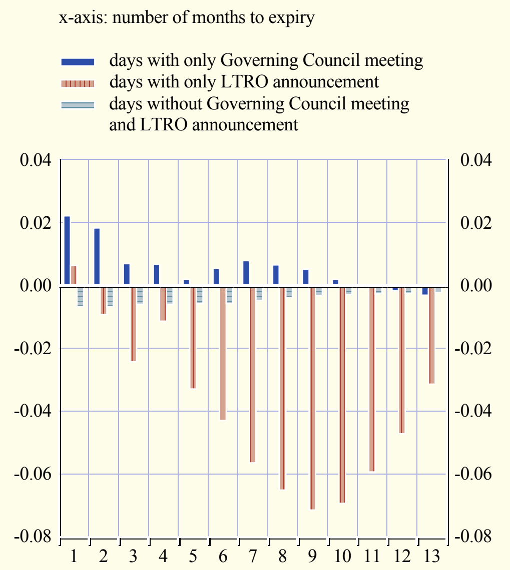
(percentage points)



Sources: Reuters and ECB calculations.
Notes: Average over selected days in the period from 1 August 2007 to 9 October 2009. “LTRO” stands for longer-term refinancing operation.

Chart 2 Average daily change in three-month EURIBOR futures

(percentage points)



Sources: Reuters and ECB calculations.
Notes: Average over selected days in the period from 1 August 2007 to 9 October 2009. “LTRO” stands for longer-term refinancing operation.

rather than the absolute daily change, reveals that the ECB’s communication on the decision to conduct additional longer-term refinancing operations has helped to ease conditions in money markets over the entire maturity spectrum and has made the implementation of such operations more effective. Contrary to days without announcements on additional operations, markets on average priced in a decline in the EURIBOR futures on days with announcements of such operations.

5 CONCLUSIONS

The ECB’s communication strategy and the transparency of its monetary policy-making have proved particularly useful in the current period of financial distress and heightened uncertainty. Timely and precise communication concerning the changes to the monetary policy framework is key and has to be well understood by participants in the financial markets. In addition to the policy actions themselves, communication has become all the more important in contributing to anchoring medium to longer-term inflation expectations at levels consistent with the ECB’s definition of price stability.

The combination of the ECB’s additional communication efforts since the onset of the financial turmoil in August 2007 and the ECB’s long-standing transparency with respect to its monetary policy are likely to have supported the private sector’s swift understanding of both the non-standard actions taken in response to the intensification of the financial tensions in autumn 2008 and its determination to remain firmly committed to the achievement of its price-stability objective.