SPEECH

The science and practice of monetary policy communication: the ECB experience

Keynote speech by Philip R. Lane, Member of the Executive Board of the ECB, at the Bank of England and its Watchers Conference

London, 10 November 2026

Monetary policy is about more than just the latest interest rate decision. It also involves communication about future economic developments and the factors shaping future policy decisions.[1] By steering the expectations of financial market participants, central bank communication shapes the full set of financial market prices across the maturity and risk spectrums, in turn affecting financing conditions and decisions around credit, saving and investment. The decisions of households and firms are also affected by their beliefs about monetary policy, which depend on how the central bank communicates.[2]

I will divide this speech into two parts. In the first part, I will review recent contributions by ECB staff on the science of monetary policy communication.[3] In the second part, I will discuss the practice of monetary policy communication from an ECB perspective.

The science of monetary policy communication

Greater data availability, increased computing power and artificial intelligence have substantially expanded the tools available for analysing central bank communication. Until recently, researchers relied on dictionary-based approaches to quantify the content and tone of monetary policy statements and speeches. This involved categorising specific words and expressions associated with a restrictive or accommodative stance, or with different assessments of inflation and the economic outlook.[4] Machine learning techniques and large language models (LLMs) now allow for the extensive analysis of large volumes of text in a more automated manner, taking into account the context in which words are used instead of relying solely on the frequency of individual words or predefined expressions.[5]

Recent ECB research illustrates these possibilities. A set of novel, LLM-based in-house measures of the tone of ECB monetary policy communication confirms that it becomes more hawkish during tightening phases and more dovish during easing periods. These shifts in communication closely track developments in the deposit facility rate (Chart 1, panel a).[6] The importance of communication is also illustrated by the research finding that information extracted from ECB monetary policy statements can improve forecasts of euro area core inflation several quarters ahead, even when controlling for the contributions of Eurosystem and ECB staff projections.[7]

These indicators can also be employed to test whether central bank communication follows systematic patterns that reflect the economic outlook and the policy stance. Indeed, the evidence suggests that

central banks tend to communicate in a systematic manner, following “communication rules”.[8] By estimating a systematic relationship between the tone of communication on monetary policy, economic activity and inflation, ECB staff find that, in line with our primary objective of price stability, ECB communication on monetary policy systematically places more emphasis on inflation developments (Chart 1, panel b).

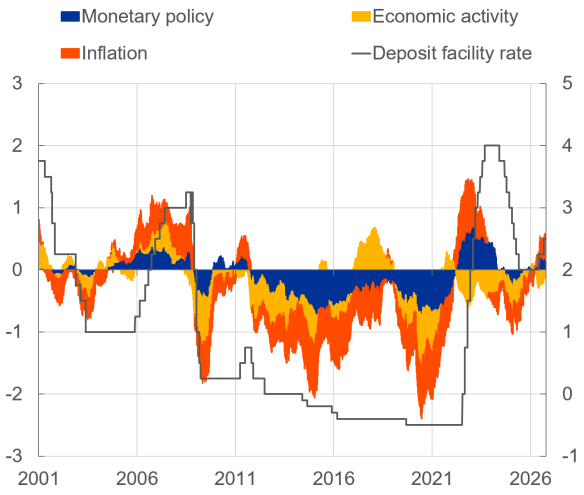
These new tools therefore provide valuable insights into aspects of communication that conventional financial market indicators may not fully capture. At the same time, their use requires careful validation, since the results depend on how questions are formulated and what data are used for training.[9]

Chart 1

Evolution of ECB communication tone and “Taylor-type” communication rule weights

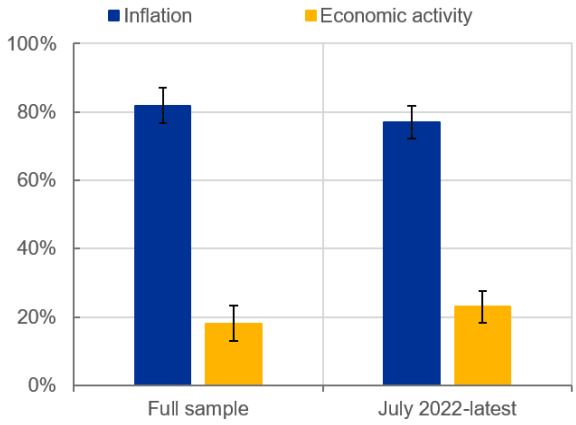
a) LLM-based sentiment scores and the deposit facility rate (DFR)

(left-hand side: scoring points (neutral is 0, hawkish is above 0, dovish is below 0); right-hand side: deposit facility rate (percentages))



b) estimated communication rules linking tone on monetary policy with tone on inflation and economic activity

(standardised regression coefficients)



Source: ECB staff calculations.

Notes: Panel a): sentiment scores across three communication dimensions (left-hand scale) and the DFR (right-hand scale). “Monetary policy” captures the tone of communication surrounding policy decisions, “economic activity” reflects assessments of economic developments and “inflation” captures signals related to price developments. A score of zero indicates a neutral tone, while positive and negative values indicate hawkish and dovish tones, respectively. Sentiment scores are calculated as moving averages of the scores for the most recent 30 texts. The sample period is 14 January 2001 to 26 October 2026.

Panel b): regression coefficients for a model regressing the de-meaned values of the monetary policy tone on the de-meaned inflation and economic activity tones, using the tone as measured at the ECB Governing Council meeting, with the inflation and economic weights constrained to sum to one. Whiskers show 95% heteroscedasticity and autocorrelation-consistent confidence intervals. The sample period is 1 January 2001 to 13 August 2026.

Financial markets

Financial market participants closely follow central bank communication because it provides information about both the economic and inflation outlook and the expected path of monetary policy. Both of these dimensions are relevant for asset pricing and investment decisions.

Central bank communication can influence interest rate expectations and financial conditions, independently from actual policy changes.[10] Research shows that financial analysts reassess the

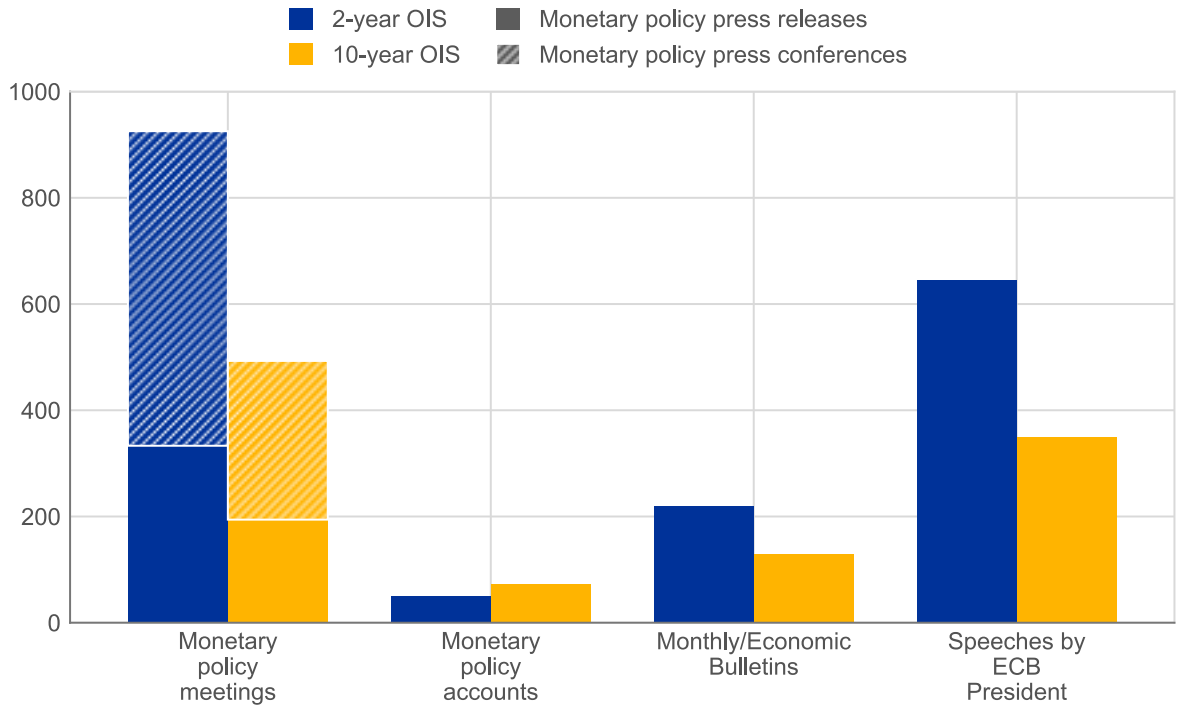
monetary policy stance following ECB Governing Council announcements, considering both the policy decision and the accompanying communication. Unexpected revisions in their assessment contain information beyond conventional market-based monetary policy surprises and are associated with significant effects on economic and financial conditions. For instance, even when an interest rate decision is widely anticipated and generates little immediate market reaction, the accompanying communication may lead market analysts to reassess how restrictive is monetary policy or how it is likely to evolve.[11]

Chart 2

Communication moves financial markets

Cumulated absolute high-frequency changes in risk-free rates by event type

(basis points)



Source: Akkaya, Y., Bitter, L., Grasso, A. and Amorim Cabaco, B. (2025), "From press conferences to speeches: the impact of the ECB's monetary policy communication", *Economic Bulletin*, Issue 1, ECB.

Notes: Cumulated absolute high-frequency changes (with mean absolute changes in brackets) for a range of risk-free and sovereign yields across event types, computed using data from January 2004 to October 2023. The high-frequency window around the different event types is as follows: -10 minutes to +20 minutes around publication of the monetary policy press release; -10 minutes to +75 minutes around the start of the Governing Council's press conference; -10 minutes to +50 minutes around the publication of the account of the Governing Council's monetary policy meeting; -10 minutes to +80 minutes around the publication of the Monthly/Economic Bulletin; -10 minutes to +60 minutes around the publication of speeches other than statements to the European Parliament; and -10 minutes to +10 minutes around the publication of Bloomberg headlines. "OIS" stands for overnight index swap.

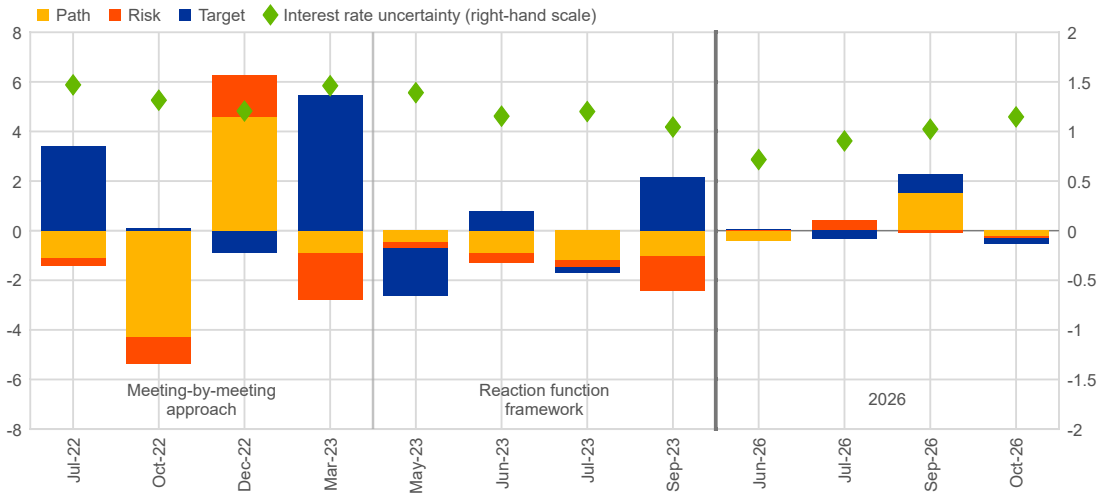
The importance of communication extends beyond Governing Council meetings. Research examining thousands of speeches, interviews, hearings and other events shows that communication in the time period between meetings can affect market interest rates across maturities. It can help markets anticipate policy changes, particularly ahead of tightening episodes, and its cumulative effect over time can be comparable to that of policy announcements, especially at longer maturities (Chart 2).[12]

Beyond shaping expectations about the future path of policy rates, communication also affects financial conditions more broadly. The tone of ECB communication can influence monetary policy uncertainty and premia on risky assets.[13] In particular, financial markets respond to several dimensions of monetary policy news: the current policy rate, the expected path of rates, and market and sovereign risk ("target", "path", and "risk" in Chart 3, respectively).

Chart 3

Monetary policy news from selected ECB Governing Council meetings

(standard deviations)



Sources: Bloomberg and ECB calculations.

Notes: The model decomposes movements in overnight index swaps (one, three and six months; one, two, five and ten years), ten-year sovereign yields (DE, FR, IT and ES), a set of risky assets (Eurostoxx 50, Eurostoxx Banks, Eurostoxx VSTOXX) and the EUR/USD exchange rate into three factors: interest rate target, path and risk. Average interest rate uncertainty is based on the option-implied standard deviation of the three-month Euribor one year ahead. The latest observations are for 29 October 2026.

Households and firms

Communicating with households and firms presents different challenges to communicating with markets. Unlike professional market participants, most households do not closely follow central bank communication. And even when they do encounter central bank messages, they may interpret their implications differently to market analysts. Research presented in our 2021 monetary policy strategy review suggests that information about the new inflation target reached only around one in ten

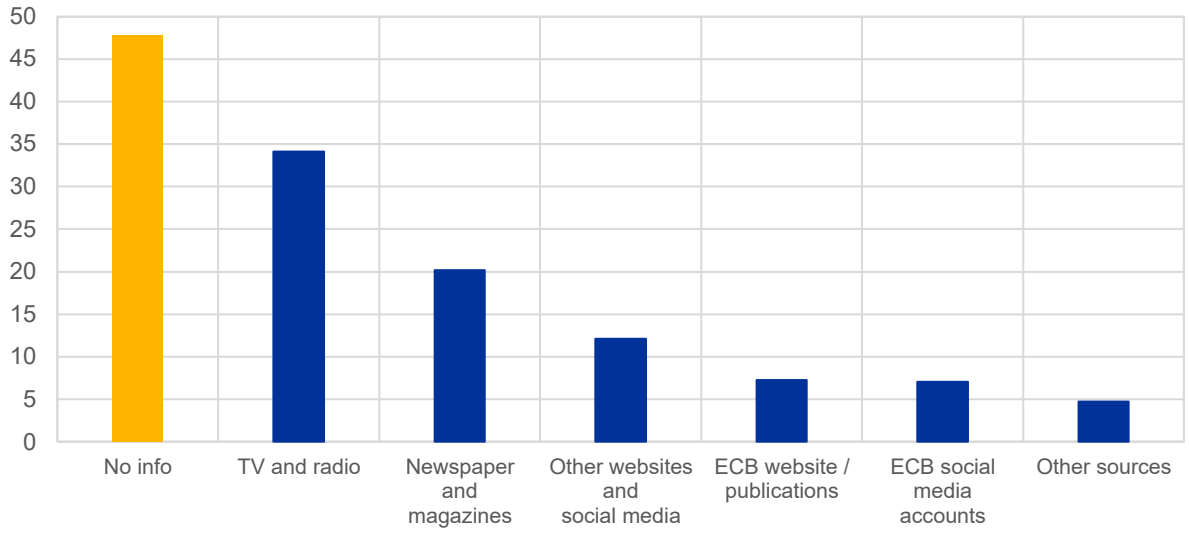
consumers in the months following its announcement. Most learned about the new inflation target through television, radio and newspapers rather than directly from the ECB (Chart 4).[14]

Chart 4

How ECB communication reaches households

Consumer Expectations Survey responses on channels for information about ECB

(percentage shares of all respondents)



Source: Ehrmann, M., Georgarakos, D. and Kenny, G. (2025), "Credibility gains from central bank communication with the public", European Economic Review, Vol. 177, No 105069.

Notes: Responses to the question "In the past two months, have you seen or heard information about the European Central Bank (ECB) from any of the following sources?". The figure reports the percentage share of all respondents, by answer category. Apart from "No info", all other options are not mutually exclusive, leading to a total sum higher than 100 per cent of the respondents. Weighted estimates. The last observation is for August 2026 (most recent Consumer Expectations Survey).

Reaching households, however, is just one part of the process. Attention to inflation varies with the economic environment. When inflation is high, households and firms tend to pay more attention, while they pay less attention when inflation is low and stable (Chart 5).[15] This matters for the transmission of monetary policy. What households and firms believe about future inflation, and how confident they are that the central bank will deliver price stability, shapes how they set wages and prices and how they adjust their spending and saving when we change interest rates.[16]

When inflation is high, households tend to be more attentive, but they may also be less responsive to information they already know. This underscores the importance of tailoring communication to the economic environment to ensure that messages reach households when inflation is low while providing clear, relevant and informative explanations when inflation becomes more salient.[17]

Households typically interpret monetary policy in terms of how it directly affects their economic circumstances. Euro area consumers tend to associate monetary policy primarily with borrowing costs rather than directly with inflation. Those who emphasise the borrowing-cost channel may also respond more strongly to a rate rise in their planned spending decisions.[18]

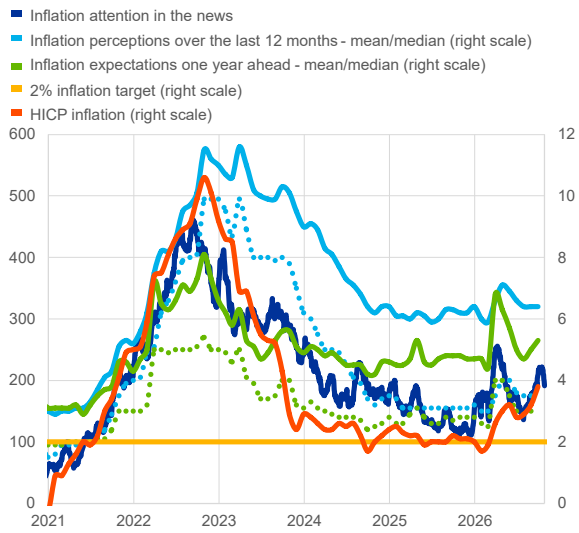
The expectations of firms are also important for monetary policy transmission. Their views about future inflation influence pricing, wage-setting and investment decisions, and ultimately the evolution of inflation itself. Recent evidence shows that attention paid by firms to inflation varies considerably over time, increasing when inflationary pressures become more pronounced (Chart 5, panel b).

Chart 5

Inflation attention of households and firms

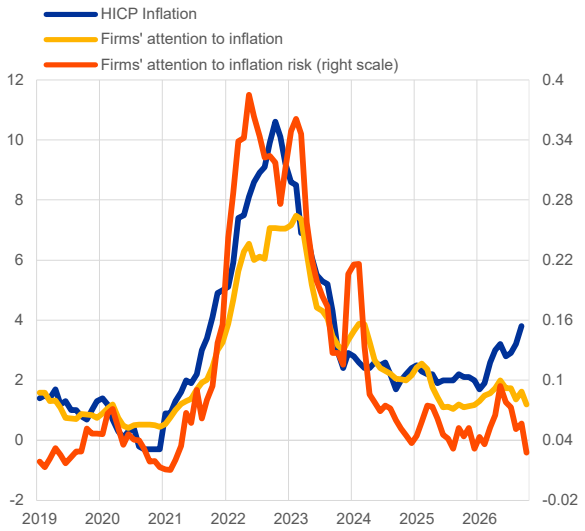
a) Household inflation attention, perceptions and expectations

(index of relative number of articles (left scale); annual percentage changes (right scale))



b) Firms' attention to inflation and inflation risks

(cross-sectional average of sentences mentioning inflation keywords, three-month moving average)



Panel a: Source:, see Chart B in Aarab, I., Bańbura, M., Bobeica, E. and Leguay, E. (2025), "Monitoring attention to inflation in the news", *Economic Bulletin*, Issue 6, ECB.

Notes: Inflation attention in the news is calculated using the 28-day moving average of the daily index. Inflation perceptions and inflation expectations show the mean rate reported in the ECB Consumer Expectations Survey's responses with solid lines, and the median rate with dotted lines. The latest observations are September 2026 for inflation attention in the news and HICP inflation, and August 2025 for inflation perceptions over the last 12 months and inflation expectations one year ahead.

Panel b: Source: Battistini, N. and Trebbi, G. (2026), "Demand or supply-driven? How firms view inflation right now", *The ECB Blog*, ECB, 29 July.

Notes: Firms' attention to inflation is the three-month moving average of the cross-sectional average number of NL Analytics earnings-call sentences mentioning inflation keywords. Firms' attention to inflation risk is the three-month moving average of the cross-sectional average number of NL Analytics earnings-call sentences mentioning inflation keywords as well as risk or uncertainty-related language.

Macroeconomic impact of monetary policy communication

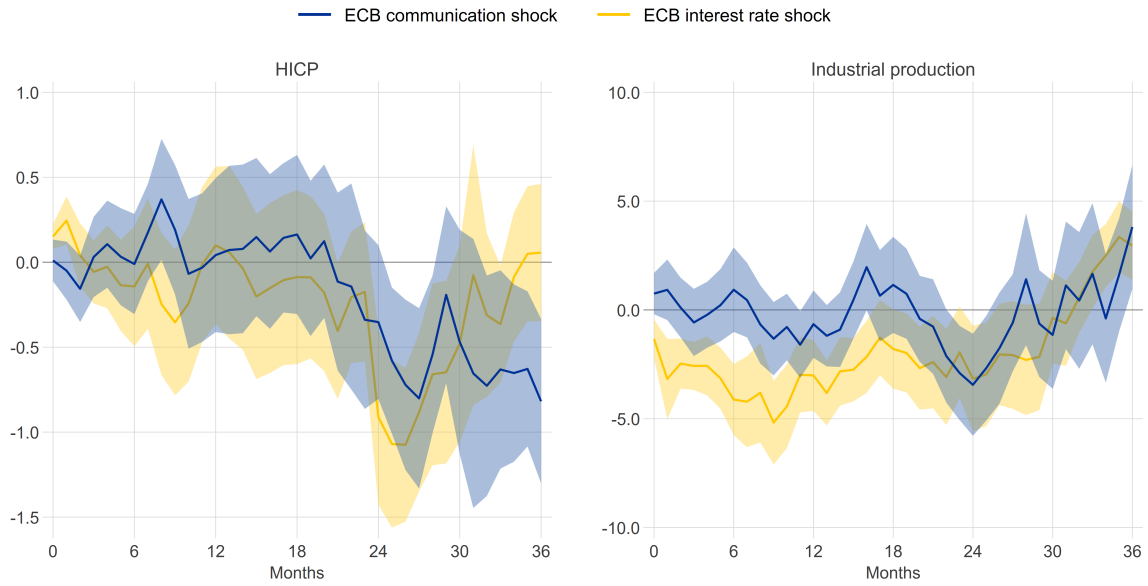
Unexpected shifts in monetary policy communication ("communication shocks") can influence activity and inflation. Relative to the impact of those of unexpected interest rate decisions ("interest rate shocks"), the effects of "communication shocks" tend to be smaller and slower to materialise but can nevertheless be significant (Chart 6).[19]

Chart 6

Euro area macroeconomic effects of ECB communication and interest rate shocks

Impulse responses to interest rate and large language model based ECB communication shocks

(percentage)



Source: ECB staff calculations.

Notes: Impulse responses of industrial production and the HICP to both tightening policy rate and communication shocks, estimated using local projections (LP). ECB communication shocks derived from large language model (LLM)-based sentiment indicators in Chart 1 using a two-step procedure following Gebauer, McGregor and Schumacher (2024). First, changes in the policy tone are regressed on activity and inflation tones measured during the same meeting by the LLM, and inter-meeting ECB communication derived from LLM-based assessments of speeches and interviews. Second, shocks are restricted to tone changes moving inversely with equity prices at high frequency during the policy announcement and press conference window, following Jarociński and Karadi (2020). The control variables in the LP taking up these shocks include three lags of the respective response variables, the euro area unemployment rate, the ECB's Composite Indicator of Systemic Stress (CISS) in financial markets, the commodity price index (all in log levels), the 3-month overnight index swap (OIS) rate, a 10-year GDP-weighted synthetic sovereign bond yield, and the USD/EUR exchange rate. Each model additionally controls for the "central bank information shocks" derived by Jarociński and Karadi (2020), as well as the communication (rate) shock in the regressions for the rate (communication) shocks. Three lags of the respective shock are also included. Forward dummies (entering at the t+h horizon) for the pandemic and the war in Ukraine are added (pandemic period: March 2020 to December 2021, Ukraine war period: since March 2022). Both communication and policy rate shocks are standardised so that each shock results in a 25 basis point increase in the 3-month OIS at peak. Shaded areas denote 68% confidence intervals. The estimation sample is from 2002-25.

It is also important to recognise that monetary policy announcements convey different types of information. Markets respond not only to the decision, but also to what it reveals about the assessment of the economy. A surprise rate rise may signal tighter policy, but it may also lead markets to reassess the strength of activity or the persistence of inflation. Research has developed methods to separate policy surprises from the so-called central bank information effects, and more recently from surprises about how the central bank responds to publicly available news. These distinctions are important in

order to assess accurately the effects of monetary policy communication.[20] Recent research shows that these channels are distinct and can be identified together, which sharpens estimates of how policy affects the economy.[21]

For the ECB, research finds that estimated monetary policy surprises on meeting days – the movements in interest rates in a narrow window around the announcement – are partially inferable from euro area equity market changes over the six weeks preceding the meeting.[22] Market reactions to speeches, by contrast, show no such pattern.[23] Information conveyed by ECB announcements also travels across borders. The evidence suggests that it accounts for an important part of the co-movement of German and US government bond yields around ECB announcement days.[24]

ECB staff have also analysed the implications of uncertainty for monetary policy communication. When economic conditions are changing rapidly, it may be preferable to place greater emphasis on the current state of the economy than on precise indications about the distant future.[25] The appropriate degree of precision also depends on how confident policymakers are in their forecasts and how that confidence is perceived.[26] Moreover, how policymakers express confidence in their assessment – or acknowledge developments that differ from expectations – can itself be informative about the policy stance.[27]

Trust and credibility

Finally, economic agents need to not only clearly understand central bank messages but also trust that the words will be followed by action. Explaining why the ECB's inflation target matters for economic stability can strengthen public confidence in our commitment to keep prices stable. Such explanations are particularly effective among people with lower financial literacy, as they can help them understand how monetary policy contributes to achieving the inflation target. The effects can persist for several months but tend to fade over time.[28] Building and maintaining credibility therefore requires more than communicating individual decisions clearly. It requires explaining, consistently and repeatedly, why our objective matters and how our policies contribute to achieving it.[29]

The practice of monetary policy communication

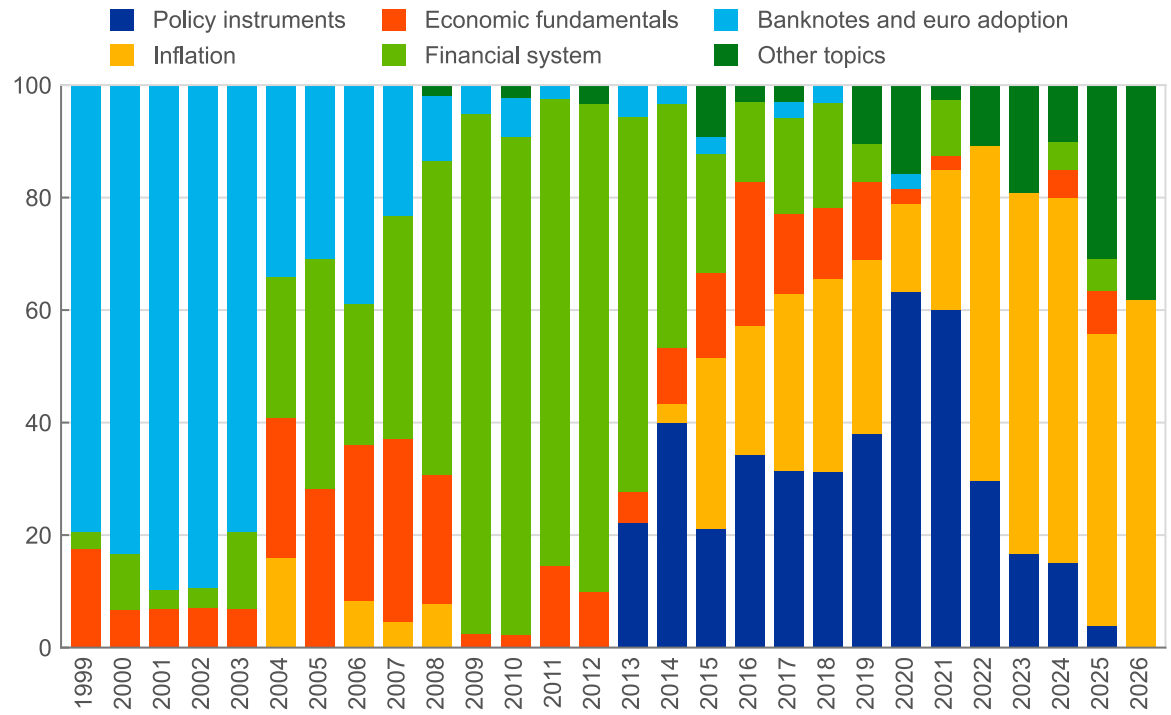
Having reviewed recent scientific research on monetary policy communication in the first part of this speech, I will now turn to a discussion of monetary policy communication in practice.

Throughout its history, the ECB has adapted its communication content to changes in the economy, the instruments activated in setting the monetary policy stance and the nature of the uncertainty facing policymakers (Chart 7).

Chart 7

Evolution of topics discussed in ECB communication

(percentage share of topic prevalence)



Source: See Box 7, Chart A in Akkaya et al. (2025), “From press conferences to speeches: the impact of the ECB’s monetary policy communication”, *Economic Bulletin*, Issue 1, ECB

Notes: The communication outlets considered in this chart include the press conferences following the Governing Council’s monetary policy meetings, related press releases, the accounts of the Governing Council’s monetary policy meetings and speeches given by the President of the ECB. The Monthly Bulletin and the Economic Bulletin publications are excluded, as the Monthly Bulletin is only available in PDF format, which makes it unsuitable for topical data filtering. The latest observation is for October 2026.

Before the global financial crisis, ECB monetary policy communication focused on explaining decisions and making the underlying reaction function more predictable, without explicitly signalling an interest rate path.[30] Since its inception, the ECB has held press conferences to accompany its policy decisions. The publication of staff macroeconomic projections from 2004 onwards provided further information about the outlook. Policy decisions were systematically related to the assessment of risks surrounding the projected inflation path, while communication between meetings could help markets anticipate turning points. For instance, the speech by ECB President Trichet on 18 November 2005 ahead of the December 2005 interest rate increase helped prepare markets for the first interest rate increase in five years.[31] Through these steps, news about the orientation of monetary policy influenced medium- and longer-term yields even before the era of explicit forward guidance.[32]

The global financial crisis and the euro area sovereign debt crisis fundamentally changed the environment. Amid severe financial stress, effective communication played an essential role in restoring confidence and supporting smooth monetary policy transmission. This was particularly evident in the

summer of 2012 due to rising financial fragmentation and elevated sovereign risk premia. The ECB's commitment to do “whatever it takes” to preserve the euro, followed by the announcement of the Outright Monetary Transactions (OMT) instrument, helped alleviate these concerns and contributed to a substantial decline in sovereign bond yields and narrowing spreads in the countries most affected by the crisis. This episode illustrates how communication backed by a clear policy commitment can safeguard smooth monetary policy transmission.[33]

As policy rates approached the effective lower bound, influencing expectations about future rates became all the more important. The ECB introduced explicit rate forward guidance in July 2013. By communicating on the future policy path, rate forward guidance sought to influence market expectations and financing conditions beyond the immediate policy horizon. Experience showed that design matters. Longer-horizon and state-contingent guidance can reduce uncertainty about future rates by clarifying the conditions under which policy may change.

By contrast, short-horizon or open-ended guidance may be less effective and can even increase uncertainty if it leaves markets unsure about the central bank's future course of action.[34] The interaction with other instruments matters as well. Asset purchases can reinforce the effectiveness of forward guidance, while clear information about the scale of purchase programmes can reduce uncertainty. However, linking the sequencing of asset purchases to interest rate decisions can also constrain policy flexibility when economic conditions change unexpectedly.

As a result of the 2021 monetary policy strategy review, the Governing Council adopted the symmetric two per cent inflation target. At the following monetary policy meeting (July 2021), it revised its rate forward guidance by linking the expected policy path more explicitly to the inflation outlook and realised progress in underlying inflation. This reinforced the commitment to a forceful or persistent monetary policy response aimed at achieving the inflation target when inflation appeared at risk of undershooting the target.[35] [36]

However, in the wake of the 2021-2022 inflation surge, the guidance that had been designed specifically for an environment of persistently below-target inflation was no longer appropriate. The period between July 2022 and March 2023 constituted an important transition phase. In July 2022 the Governing Council moved away from the effective lower bound by raising the policy rate from minus 50 basis points to zero.[37] In line with the 2021 strategy decision that the ECB key interest rates are the primary monetary policy instrument away from the effective lower bound, the monetary policy statement did not provide specific guidance on the expected future rate path. However, it did provide directional guidance, indicating that further rate normalisation would be appropriate at upcoming meetings, even if the exact calibration would be data-dependent and decided on a meeting-by-meeting basis. The following four meetings (September 2022 to February 2023) maintained directional guidance, with a pair of 75 basis point hikes followed by a pair of 50 basis point hikes.

In addition, the February 2023 meeting articulated the intention to also hike by 50 basis points at the March meeting, which was subsequently implemented. However, having quickly raised the policy rate from -50 to 300 between July 2022 and March 2023, the March 2023 monetary policy statement replaced directional guidance with the reaction function guidance that future interest rate decisions would be based on the inflation outlook in light of incoming economic and financial data, underlying

inflation dynamics and the strength of monetary policy transmission. These criteria would be assessed on a data-dependent, meeting-by-meeting basis. These elements of the reaction function remain in place. An explicit role for the risks surrounding the inflation outlook was added in July 2025: this reflected one implementation of the conclusion of the 2025 monetary policy strategy assessment that monetary policy decisions should explicitly incorporate this risk assessment.

Although it turned out that the following four meetings would also deliver hikes (25 basis points at each meeting, bringing the policy rate to 400 basis points), there was a clear gear shift at the March 2023 meeting. In essence, after a series of rapid and outsized hikes, the gap between the policy rate and the plausible range of the "appropriate level" of the policy rate was no longer so wide as to justify ongoing formal directional guidance.[38] While formal directional guidance may be appropriate in the early phases of a forceful monetary policy response to a large inflation shock in either direction, it may convey an excessive level of certainty about the future rate path in the later phases (after a large adjustment has already been put in place). Similarly, avoiding formal directional guidance is prudent in implementing a measured monetary policy response to less extreme inflation shocks.[39]

The framework guidance provided by the Governing Council can be interpreted as implementing the strategic approach to making monetary policy decisions that was laid out in the 2021 monetary policy strategy statement.[40] In particular, the 2021 strategy committed to basing monetary policy decisions on an integrated assessment of all relevant factors, taking into account the interdependencies between the economic analysis of real and nominal variables and the monetary and financial analysis that focused on the monetary transmission mechanism.

Since it would be unwise to rely exclusively on inflation projections, especially during times of high uncertainty, a balanced approach that takes into account both the forward-looking inflation outlook and the information revealed by the realised path of underlying inflation is preferable, with underlying inflation indicators distilling the realised inflation data to uncover the components most relevant for the medium term. In calibrating monetary policy, it is also essential to rely on the latest assessment of the strength of monetary transmission, given the range of uncertainty about the timing and strength of the macro-financial impact of shifts in the monetary policy stance and the scope for exogenous shocks to financial conditions and financing conditions.[41]

Framework guidance delivers a systematic approach to monetary policy that is interpretable by financial market participants and external experts. The 2021 monetary policy strategy statement highlighted that monetary policy decisions are communicated through the monetary policy statement, the press conference, the Economic Bulletin and the monetary policy accounts. Together with the publication of the quarterly staff macroeconomic projections exercises, these releases provide the analytical underpinnings of how the reaction function criteria are assessed. Further analysis is provided through staff working papers and contributions to the ECB Blog, along with presentations and speeches by ECB Executive Board members.[42]

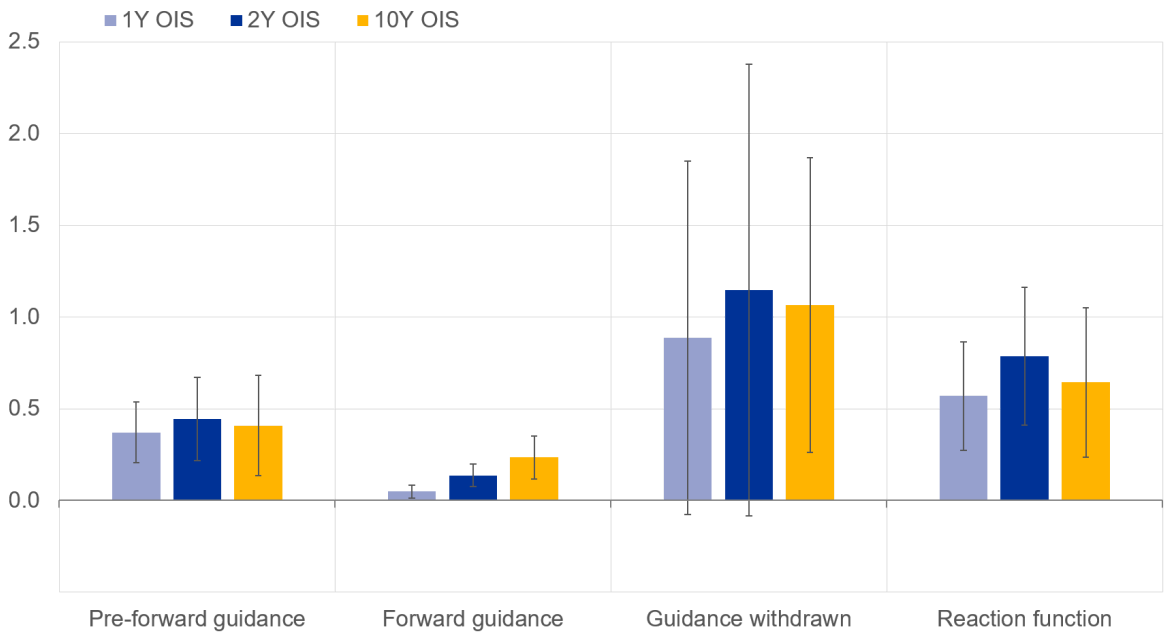
Recent ECB research shows that the sensitivity of rate expectations to macroeconomic news appears to have increased under the ECB's current framework guidance regime compared with the period of explicit forward guidance, where short-term rates were mostly constrained by an effective lower bound, implying a smaller information content of surprises for the expected policy path (Chart 8). Markets

seem to have incorporated macroeconomic news in rate expectations in a systematic manner only after the explicit formulation of the reaction function criteria, which also came at a time of receding macroeconomic uncertainty. That said, the evidence is suggestive rather than conclusive: the economic environment, the degree of uncertainty and the constraints facing monetary policy also changed substantially between those periods. Nevertheless, it highlights how communication frameworks can influence expectations and the transmission of monetary policy.

Chart 8

Response of OIS rates to euro area macroeconomic surprises, by communication regime

(basis points per standard-deviation surprise)



Source: ECB staff calculations.

Notes: Estimated change in the OIS rate, in basis points, following a one-standard-deviation euro area macroeconomic surprise, at the one-year, two-year and ten-year maturities. Daily first differences in OIS rates regressed on the macroeconomic surprise series used in the ECB's Macroeconomic Surprise Indicator (MSI), with regime-specific intercepts and interaction terms, one lag of the dependent variable, and indicators controlling for the effective lower bound, Governing Council decision days and press conference days added as controls (results robust to the omission of controls and to estimating each regime separately, and to using an alternative definitions of the lower bound period instead). The surprise series is built from Bloomberg data on consensus forecasts of 59 euro area indicators. For each indicator, the surprise is the released value less the Bloomberg median forecast, divided by the standard deviation of that indicator's own surprises. Each release is dated to the respective trading day. Indicators are weighted by Bloomberg relevance scores, measuring the share of Bloomberg terminal users that follow the series' release. The weights are therefore independent of any interest rate move. Releases of the same category on the same day are combined with a correction for their measured mutual correlation, so that several readings of one signal are not counted several times. Whiskers are 95% confidence intervals. Standard errors are robust to heteroskedasticity and serial correlation. Coefficients are scaled by the full-sample standard deviation of the macroeconomic surprise series. Estimation period: 2007-26.

Finally, incorporating uncertainty into monetary policy communication poses trade-offs.[43] In view of the high level of external trust in the systematic and comprehensive analysis that underpin the exercise, the information anchor provided by the baseline projections is more valuable than ever in an environment of elevated uncertainty. At the same time, in relation to specific and material risk events, the publication of alternative scenarios can help financial markets, experts and the public understand the possible quantitative impact on inflation and growth dynamics if these alternative scenarios were to materialise.[44]

A communication risk is that excessive focus in placed on the published scenarios rather than also taking into account the comprehensive risk assessment that is contained in each monetary policy statement and expanded upon in the accounts. During any period, a range of risk factors can materialise, such that a wide-angled perspective is needed, rather than taking a reductive approach that overly focuses on any particular set of scenarios.[45]

Conclusions

In this speech, I have outlined some recent ECB research on the science of monetary policy communication. In particular, I have highlighted that new text-based tools, including large language models, allow us to measure central bank communication more systematically, and these confirm that what we say moves financial markets, between meetings as well as on meeting days. Relative to markets-orientated communication, reaching households and firms is more challenging: their attention to inflation rises and falls with inflation itself, which makes clear and consistent communication even more important when inflation is elevated.

In relation to the practice of monetary policy communication, framework guidance is more effective than rate forward guidance when policy rates are away from the effective lower bound. In particular, framework guidance retains the beneficial properties of forward guidance in providing an anchor for rate expectations without incurring the costs in terms of inflexibility and the risk of misperceptions. By communicating a reaction function that spells out the criteria that guide our decisions, our framework guidance has helped markets interpret the incoming data.

1.
I would like to thank Viola Billerbeck, Yannis Da Silva Stamoulis, Alessandro De Sanctis, Laura Gati, Stefan Gebauer, Klodiana Istrefi, Peter McQuade, Maria Sole Pagliari, Chiara Scenini, Lennart Stein and Lucien Vargas Gniagnocavo for their contributions to this speech. The views expressed here are my own and should not be interpreted as representing the collective view of the Governing Council.

2.
In addition to its role in determining the effectiveness of monetary policy, communication is also essential in ensuring accountability and trust, given the status of the central bank as a public institution that is granted operational independence in delivering its mandate.

3.

It is beyond the scope of this speech to review the broader literature on central bank monetary policy communication.

4.

See, for instance, Gardner, B., Scotti, C. and Vega, C. (2022), "Words speak as loudly as actions: Central bank communication and the response of equity prices to macroeconomic announcements", *Journal of Econometrics*, Vol. 231, No 2, pp. 387-409; Picault, M. and Renault, T. (2017), "Words are not all created equal: A new measure of ECB communication", *Journal of International Money and Finance*, Vol. 79, pp. 136-156; Bouscasse, J.-F., Kapp, D., Kedan, D., McGregor, T. and Schumacher, J. (2023), "How words guide markets: measuring monetary policy communication", *The ECB Blog*, ECB, 9 August; and Marozzi, A. (2021), "The ECB's tracker: nowcasting the press conferences of the ECB", *Working Paper Series*, No 2609, ECB.

5.

It is beyond the scope of this speech to assess how the intermediation of ECB communication by large language models and AI agents might alter best practices in communication. See also: see Brunnermeier, M.K. (2026), "Artificial Intelligence and the Brave New World in Finance", paper prepared for the Jackson Hole Economic Policy Symposium, Federal Reserve Bank of Kansas City, August.

6.

The DFR steers the monetary policy stance. Under the LLM-based approach, the full text is supplied to a frontier LLM (GPT/5.1) accompanied by an extensive prompt to support accuracy, auditability and stability. The model version is kept fixed as performance across different vintages turns out very similar for simple classification tasks and given that it facilitates comparing scores over time. Scores range from -1 to 1 for each dimension: zero is neutral, positive is hawkish and negative is dovish. A hawkish communication signals a higher probability of future tightening and/or prolonged restrictiveness across the policy toolkit. A neutral communication emphasises data-dependence, balanced risks or no clear directional tilt in the future policy stance. A dovish communication signals a higher probability of future easing and/or earlier normalisation across the policy toolkit. The model also identifies the key passages behind each score and provides a brief rationale for human validation. Each document is scored multiple times, with the median retained to reduce sensitivity to individual model outcomes. It is worth noting that the relation between the DFR and communication tone is inherently imperfect, as the latter captures the language surrounding a policy decision that is measured independently from the decision itself.

7.

Araujo, D., Bokan, N., Comazzi, F.A. and Lenza, M. (2025), "Word2Prices: embedding central bank communications for inflation prediction", *Working Paper Series*, No 3047, ECB. The monetary policy

statement incorporates more recent information than the staff projections, including developments since the cut-off date for the projections exercise and also includes the Governing Council's risk assessment.

8.

In Gáti and Handlan (2022) the authors regress communication measures on Federal Reserve expectations as stated in the Fed's Greenbook and realised policy variables, and identify a systematic relationship between central bank expectations, decisions in the form of policy variables and communication. Gáti, L. and Handlan, A. (2022), "Monetary communication rules", *Working Paper Series*, No 2759, ECB,

9.

See footnotes 5 and 6.

10.

Bouscasse, J.-F. et al. (2023), op. cit.

11.

Ebener, L. and McGregor, T. (2026), "What analysts hear and why it matters for monetary policy", *Working Paper Series*, No. 3298, ECB.

12.

Istrefi, K., Odendahl, F. and Sestieri, G. (2026), "ECB communication and its impact on financial markets", *European Economic Review*, Vol. 188, No 105410; Altavilla, C., Gürkaynak, R.S., Kind, T. and Laeven, L. (2026), "Monetary transmission with frequent policy events", *Journal of Monetary Economics*, Vol. 163, No 103986; Akkaya, Y., Bitter, L., Grasso, A. and Amorim Cabaco, B. (2025), "From press conferences to speeches: the impact of the ECB's monetary policy communication", *Economic Bulletin*, Issue 1, ECB.

13.

Belly, G. et al. (2023), "Forecasting sovereign risk in the euro area via machine learning", *Journal of Forecasting*, Vol. 42, No 3, pp. 657-684; Akkaya, Y., Bitter, L., Brand, C. and Fonseca, L. (2024), "A statistical approach to identifying ECB monetary policy", *Working Paper Series*, No 2994, ECB.

14.

Ehrmann, M., Georgarakos, D. and Kenny, G. (2025), "Credibility gains from central bank communication with the public", *European Economic Review*, Vol. 177, No 105069; Battistini, N. and Trebbi, G. (2026), "Demand or supply-driven? How firms view inflation right now", *The ECB Blog*, ECB, 29 July; Song, W. and Stern, S. (2025), "Firm Inattention and the Efficacy of Monetary Policy: A Text-Based Approach", *The Review of Economic Studies*, Vol. 92, No 5, pp. 3438-3469. For the work conducted for the strategy assessment, see ECB (2025), "Report on monetary policy tools, strategy and communication", *Occasional Paper Series*, No 372, ECB.

15.

Paying attention to inflation requires time and effort, so not paying attention when there is little benefit to doing so is a rational decision from an individual perspective.

16.

Ehrmann, M. et al. (2025), op. cit.; D'Acunto, F., Georgarakos, D., Kenny, G. and Weber, M. (2026), "Subjective Models of the Macroeconomy and the Transmission of Monetary Policy", *NBER Working Papers*, No 35831, National Bureau of Economic Research, September.

17.

Weber, M., Candia, B., Afrouzi, H., Ropele, T., Lluberas, R., Frache, S., Meyer, B., Kumar, S., Gorodnichenko, Y., Georgarakos, D., Coibion, O., Kenny, G. and Ponce, J. (2025), "Tell Me Something I Don't Already Know: Learning in Low- and High-Inflation Settings", *Econometrica*, Vol. 93, No. 1, pp. 229-264.

18.

D'Acunto, F., Georgarakos, D., Kenny, G. and Weber, M. (2026), "Subjective Models of the Macroeconomy and the Transmission of Monetary Policy", *Working Paper*, No 35831, National Bureau of Economic Research, September.

19.

See also Gebauer, S., McGregor, T. and Schumacher, J. (2024), "How central bank communication affects the economy", The ECB Blog, ECB, 31 July.

20.

Jarociński, M. and Karadi, P. (2020), "Deconstructing Monetary Policy Surprises – The Role of Information Shocks", *American Economic Journal: Macroeconomics*, Vol. 12, No 2, pp. 1-43; Jarociński, M. and Karadi, P. (2026), "Monetary policy surprises with imperfect information", *Working Paper Series*, No 3292, ECB, October.

21.

Jarociński, M. and Karadi, P. (2026), "Monetary policy surprises with imperfect information", *Working Paper Series*, No 3292, ECB, October.

22.

However, the evidence indicates that markets overestimate the immediacy of the ECB's reaction to financial market developments, not sufficiently taking into account the gradualism that is typical in adjusting monetary policy.

23.

Altavilla, C., Gürkaynak, R.S., Kind, T. and Laeven, L. (2026), "Monetary transmission with frequent policy events", *Journal of Monetary Economics*, Vol. 163, Article 103986, November. This study also

finds that, although speeches do affect asset prices significantly, scheduled policy announcements still account for the majority of high-frequency movements in euro area interest rates across maturities.

24.

Jarociński, M. (2022), "Central bank information effects and transatlantic spillovers", *Journal of International Economics*, Vol. 139, Article 103683, November.

25.

Maintaining discretion may be preferable when severe or unforeseen economic shocks require immediate policy flexibility, as a strict commitment can generate a costly "stabilisation bias" by forcing the central bank to adhere to rules or paths that no longer fit the altered economic reality. See, for example, Clarida, R., Gali, J. and Gertler, M. (1999), "The science of monetary policy: A New Keynesian perspective", *Journal of Economic Literature*, Vol. 37, No 4, pp. 1661–1707; Rogoff, K. (1985), "The optimal degree of commitment to an intermediate monetary target", *The Quarterly Journal of Economics*, Vol. 100, No 4, November, pp. 1169–1189; and Woodford, M. (2003), *Interest and prices: Foundations of a theory of monetary policy*, Princeton University Press.

26.

Gáti, L. (2023), "Talking Over Time – Dynamic Central Bank Communication", *Journal of Money, Credit and Banking*, Vol. 55, No 5, 19 April; Gáti, L. and Handlan, A. (2025), "Reputation for confidence", *Working Paper Series*, No 3141, ECB.

27.

Fadda, P., Hanifi, R., Istrefi, K. and Penalver, A. (2025), "Central bank communication of uncertainty", *Journal of International Money and Finance*, Vol. 157, August.

28.

Ehrmann, M., Georgarakos, D. and Kenny, G. (2025), "Credibility gains from central bank communication with the public", *European Economic Review*, Vol. 177, Article 105069, August.

29.

Clarity and consistency are essential to make communication effective, as emphasised by the findings of both the ECB's 2021 strategy review and the 2025 strategy assessment. Clarity of communication is a prerequisite to ensure that decisions are correctly understood by financial market participants, firms and households, while coherence across messages over time and between words and actions is essential for public trust and central bank credibility.

30.

Prior to 2008, the ECB aimed to outline its reaction function through a transparent and structured monetary policy strategy, while deliberately avoiding rigid adherence to simplistic rules. For an overview, see Issing, O. (2019), *The long journey of central bank communication*, MIT Press. In articulating the approach of the ECB to monetary policy communication, Issing (2000) stressed that

“there is no convincing alternative to the arduous task of continuously explaining how we arrive at, confirm or refine our common assessment of the outlook for price stability meeting by meeting, month by month. This assessment is done in the context of our strategy and is conducted in a systematic manner, even if our strategy may seem unduly complex to some observers.” In a similar vein, Issing (2005) emphasised that a “publicly announced strategy provides guidance for the markets, enabling them to form expectations more efficiently and to better anticipate interest rate decisions”. Draghi (2014) later assessed that “[t]ogether, a credible objective and a well-understood reaction function allow financial markets and the public to form reasonable expectations about our future interest rate policy […] In the pre-crisis times, these expectation effects worked relatively smoothly. […] And our reaction function could be understood well, based on our strategy and actions […]”. While stopping short of explicit guidance on the interest rate path, the recurrence of certain formulations over the tightening cycle that began in December 2005 — from monitoring developments “closely” and “very closely” to “strong vigilance” — led markets to read them as a de facto “traffic light system” for the decision at the next meeting (see Cour-Thimann and Jung, 2021). See Issing, O. (2000), “Communication challenges for the ECB”, opening statement at the CFS research conference “The ECB and its watchers II”, Frankfurt am Main, 26 June; Issing, O. (2005), “Communication, Transparency, Accountability: Monetary Policy in the Twenty-First Century”, Federal Reserve Bank of St. Louis Review, Vol. 87, No. 2, Part 1; Draghi, M. (2014), “Monetary policy communication in turbulent times”, speech at the conference De Nederlandsche Bank 200 years: Central banking in the next two decades, Amsterdam, 24 April; Cour-Thimann, P. and Jung, A. (2021), “Interest-rate setting and communication at the ECB in its first twenty years”, *European Journal of Political Economy*, Vol. 70, 102039.

31.

Istrefi, K., Odendahl, F. and Sestieri, G. (2026), “ECB communication and its impact on financial markets”, *European Economic Review*, Vol. 188, Article 105410, August.

32.

Istrefi, K. and Sestieri, G. (2019), “Does the ECB balance of risks matter for monetary policy decisions?”, *Eco Notepad*, No 127, *Banque de France*, 2 August.; Istrefi, K., Odendahl, F. and Sestieri, G. (2026), “ECB communication and its impact on financial markets”, *European Economic Review*, Vol. 188, Article 105410, August; Akkaya, Y., Bitter, L., Brand, C. and Fonseca, L. (2024), “A statistical approach to identifying ECB monetary policy”, *Working Paper Series*, No 2994, ECB.

33.

Akkaya, Y., Bitter, L., Brand, C. and Fonseca, L. (2024), “A statistical approach to identifying ECB monetary policy”, *Working Paper Series*, No 2994, ECB; Belly, G., Boeckelmann, L., Caicedo Graciano, C.M., Di Iorio, A., Istrefi, K., Siakoulis, V. and Stalla-Bourdillon, A. (2023), “Forecasting sovereign risk in the Euro area via machine learning”, *Journal of Forecasting*, Vol. 42, No 3, pp. 657-684, 14 January;

Istrefi, K., Odendahl, F. and Sestieri, G. (2026), "ECB communication and its impact on financial markets", *European Economic Review*, Vol. 188, Article 105410, August; Altavilla, C., Giannone, D. and Lenza, M. (2014), "The financial and macroeconomic effects of OMT announcements", *Working Paper Series*, No 1707; Alcaraz, C., Claessens, S.,Cuadra, G., Marques-Ibanez, D. and Sapriza, H. (2019), "Whatever it takes: what's the impact of a major nonconventional monetary policy intervention?", *Working Paper Series*, No 2249, ECB.

34.

Ehrmann, M., Gaballo, G., Hoffmann, P. and Strasser, G. (2019), "Can more public information raise uncertainty? The international evidence on forward guidance", *Journal of Monetary Economics*, Vol. 108, pp. 93-112.

35.

ECB (2021), "Monetary policy decisions", 22 July; ECB (2021), "Meeting of 21-22 July 2021", *Account of the monetary policy meeting of the Governing Council*, 26 August.

36.

The review also placed greater emphasis on making communication accessible to the wider public. Since July 2021 our monetary policy statements have been accompanied by simplified and visual explanations designed for a broader audience. Research suggests that these can substantially reduce the technical knowledge required to understand our messages. Herbert, S., Istrefi, K. and Sestieri, G. (2023), "Towards more clarity in central bank communication", *Eco Notepad*, No 314, Banque de France, 13 April; Ehrmann, M., Georgarakos, D. and Kenny, G. (2025), "Credibility gains from central bank communication with the public", *European Economic Review*, Vol. 177, 105069; ECB (2021), *Annual Report 2021*, section "The year at a glance".

37.

The process of monetary policy normalisation had started in December 2021, with the announcement of ending net asset purchases under the pandemic emergency purchase programme (PEPP) in the first quarter of 2022. In anticipation of future rate hikes, the yield curve quickly shifted up in early 2022. See Lagarde, C. (2022), "Monetary policy normalisation in the euro area" *The ECB Blog*, ECB, 23 May.

38.

My discussion about directional guidance is in relation to the formal monetary policy statement of the Governing Council, which has the highest weight in terms of conveying the monetary policy position of the ECB.

39.

See also Lane, P.R. (2025), "Inflation deviations and monetary policy," keynote speech at the 15th workshop on exchange rates, co-organised by Banka Slovenije with the Banca d'Italia, the Bank for International Settlements, the European Central Bank and the Nationale Bank van België/Banque

Nationale de Belgique, Ljubljana, 3 December; Lane, P.R. (2026), "Analytical perspectives on energy supply shocks," dinner remarks at the Centre for European Reform, London, 13 May; Lagarde, C. (2026), "Navigating energy shocks: risks and policy responses," keynote speech at "The ECB and Its Watchers" conference organised by the Institute for Monetary and Financial Stability at Goethe University Frankfurt, Frankfurt, 25 March.

40.

See also Lagarde, C. (2025), "A robust strategy for a new era," speech at 25th "ECB and Its Watchers" conference organised by the Institute for Monetary and Financial Stability at Goethe University, 12 March; Lane, P.R. (2025), "The conduct of monetary policy," keynote speech at the ECB Conference on Monetary Policy 2025: bridging science and practice, 6 October.

41.

For a review of model-based estimates of the strength of monetary transmission, see Lane, P.R. (2024), "The 2021-2022 inflation surges and the monetary policy response through the lens of macroeconomic models," SUERF Marjolin Lecture hosted by the Banca d'Italia, Rome, 18 November. See also: Lane, P.R. (2022), "The transmission of monetary policy," speech at the SUERF, CGEG|Columbia|SIPA, EIB, Société Générale conference on "EU and US Perspectives: New Directions for Economic Policy", New York, 11 October; Lane, P.R. (2023), "The euro area hiking cycle: an interim assessment," Dow Lecture, at the National Institute of Economic and Social Research, London, 16 February 2023; Lane, P.R. (2023), "The banking channel of monetary policy tightening in the euro area," remarks at the Panel Discussion on Banking Solvency and Monetary Policy, NBER Summer Institute 2023 Macro, Money and Financial Frictions Workshop, Cambridge, Massachusetts, 12 July; Lane, P.R. (2024), "The effectiveness and transmission of monetary policy in the euro area," contribution to the panel on "Reassessing the effectiveness and transmission of monetary policy" at the Federal Reserve Bank of Kansas City Economic Symposium, Jackson Hole, 24 August; Lane, P.R. (2025), "The transmission of monetary policy: financial conditions and credit dynamics," welcome address at the 5th WE_ARE_IN Macroeconomics and Finance Conference 2025, Frankfurt, 21 October. The Eurosystem research network ChaMP (Challenges for Monetary Policy Transmission in a Changing World) delivered a rich array of studies on monetary policy transmission.

42.

For instance, I typically release a slide deck containing some of the updated analysis in the week following a monetary policy meeting: the most recent slide deck is available here.

43.

See also: Lane, P.R. (2024), "Monetary policy under uncertainty," keynote speech at the Bank of England Watchers' Conference 2024, King's College London, 25 November; Lane, P.R. (2025), "The

communication of monetary policy decisions: incorporating risks and uncertainty," remarks at the Second Thomas Laubach Research Conference, Washington, D.C., 16 May.

44.

The ECB practice is to examine alternative scenarios while holding fixed the market interest rate curve. This helps to keep apart the conditional macroeconomic impact of the alternative scenarios from the endogenous monetary policy response. It is not difficult for market participants to explore possible monetary policy responses to alternative scenarios by running policy simulations, especially since the ECB publishes the details of the main macroeconomic models that it uses. Of course, the actual monetary policy decisions take into account a broader range of considerations in addition to the guidance provided by model-based rate simulations.

45.

See also Lane, P.R. (2026), "Diagnostic challenges for ECB monetary policy," keynote speech at the ECB Conference on Monetary Policy 2026: bridging science and practice, Frankfurt, 5 October.

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