Historic ECB Rate Hikes Reveal Shifting Dynamics in Monetary Policy Transmission

For the ECB, the lesson is clear: in a world of overlapping shocks and shifting dynamics, managing inflation is no longer just a question of adjusting interest rates—but of navigating an increasingly complex and unpredictable economic system.

Maria Papageorghiou
Head Economic Analysis and Monetary Policy Division
Member of the Monetary Policy Committee of the ECB

Abstract

The European Central Bank's recent tightening cycle offers a striking illustration of how monetary policy transmission is evolving in a more volatile global environment. The most aggressive rate increases in the eurozone's history during 2022-2023, brought inflation down faster than expected, but with limited damage to growth, pointing to a favourable trade-off between inflation and output – low sacrifice ratio. Yet this outcome reflects a unique combination of initial economic conditions, supply-driven shocks and policy interactions. As these factors evolve, the cost of disinflation becomes inherently less predictable. For policymakers, the lesson is clear: the sacrifice ratio can no longer be treated as stable, complicating the calibration of policy in an increasingly uncertain world. Monetary transmission has therefore become more complex and state-dependent, with expectations playing a more prominent role than in the past.

Περίληψη

Ο πρόσφατος κύκλος νομισματικής σύσφιξης της Ευρωπαϊκής Κεντρικής Τράπεζας αποτελεί ένα χαρακτηριστικό παράδειγμα του τρόπου με τον οποίο η μετάδοση της νομισματικής πολιτικής εξελίσσεται σε ένα πιο ασταθές παγκόσμιο περιβάλλον. Οι πιο επιθετικές αυξήσεις επιτοκίων στην ιστορία της ζώνης του ευρώ που έλαβαν χώρα το 2022/2023 οδήγησαν σε ταχύτερη του αναμενομένου αποκλιμάκωση του πληθωρισμού, ενώ παράλληλα είχαν περιορισμένες αρνητικές επιπτώσεις στην οικονομική ανάπτυξη, υποδηλώνοντας ευνοϊκή αντιστάθμιση μεταξύ πληθωρισμού και παραγωγής— δηλαδή έναν χαμηλό sacrifice ratio. Ωστόσο, το αποτέλεσμα αυτό αντικατοπτρίζει ένα συγκεκριμένο συνδυασμό οικονομικών συνθηκών, διαταραχών από την πλευρά της προσφοράς και αλληλεπιδράσεων πολιτικής. Καθώς οι παράγοντες αυτοί μεταβάλλονται, το κόστος της αποκλιμάκωσης του πληθωρισμού γίνεται λιγότερο προβλέψιμος. Για τους υπεύθυνους χάραξης πολιτικής, το συμπέρασμα είναι σαφές: το sacrifice ratio δεν μπορεί πλέον να θεωρείται σταθερός παράγοντας, γεγονός που καθιστά δυσκολότερο τον καθορισμό της πολιτικής σε ένα ολοένα και πιο αβέβαιο περιβάλλον. Κατά συνέπεια, η μετάδοση της νομισματικής πολιτικής έχει καταστεί πιο σύνθετη και εξαρτώμενη από τις οικονομικές συγκυρίες, με τις προσδοκίες να διαδραματίζουν πλέον πιο σημαντικό ρόλο σε σχέση με το παρελθόν.

In a world shaped by rapidly evolving technologies, recurring global crises, and geopolitical tensions, the transmission of monetary policy has become increasingly less predictable and less uniform within and across economies. Although monetary policy operates through well-established channels, its effectiveness is neither automatic nor constant. Rather, it depends on the structure of the economy, fiscal conditions, financial systems, and the broader global and geopolitical environment. These challenges become particularly pronounced during periods of heightened uncertainty or major economic shocks, when traditional transmission mechanisms tend to become less predictable as other factors come into play. As a result, monetary transmission has become more complex and state-dependent, with expectations inevitably playing a more prominent role than in the past. This evolution raises important questions regarding policy design, risk management, and the maintenance of price stability. For the ECB, the lesson is clear: in a world of overlapping shocks and shifting dynamics, managing inflation is no longer just a question of adjusting interest rates—but of navigating an increasingly complex and unpredictable economic system.

The European Central Bank's (ECB) policy cycles between 2022 and 2025 provide a compelling illustration of these dynamics. Between July 2022 and September 2023, the ECB increased the deposit facility rate (DFR) by a cumulative 450 basis points—marking the sharpest tightening cycle in the history of the euro area and exceeding the magnitude of the 2005–2008 episode.

Although the subsequent easing phase from June 2024 to June 2025 transmitted relatively quickly, the restrictive effects of the earlier tightening cycle (2022–2023) remained visible well into 2026, reflecting the longer and more persistent lags associated with monetary contraction. This overlap—where lingering tightening effects coexist with the more immediate impact of the easing cycle—highlights the asymmetric and non-linear nature of monetary policy transmission. Overall, inflation corrected faster and more strongly than in previous tightening episodes, implying an unusually favourable trade-off between inflation stabilisation and output losses—that is, a low sacrifice ratio.

Traditionally, monetary policy affects financial markets almost immediately, real economic activity with a lag of 12–18 months, and inflation after approximately 18–24 months. Not only does the deviation from this traditional pattern, but also the distinct ways in which the most recent tightening and subsequent easing cycles have deviated, raise fundamental questions: Do tightening and easing operate differently? How do initial economic conditions affect transmission? And do large, atypical shocks introduce non-linearities that alter policy effectiveness?

A closer examination suggests that several overlapping factors help explain why policy effects differed so markedly from past experience. First, cross-country heterogeneity amplified differences in transmission across the euro area. Variation in production structures, financial systems, housing markets, and fiscal capacity led to uneven outcomes among member states. For example, economies with a larger manufacturing base experienced a stronger contraction in GDP during the tightening phase, as their higher sensitivity to global demand conditions amplified the contractionary impact of rising interest rates.

Second, initial economic conditions played a crucial role. At the onset of the tightening cycle in July 2022, inflation stood at 8.9%, compared with just 2.3% at the beginning of the 2005–2008 cycle, while nominal interest rates were at –0.5% (as compared to 1% in 2005). Consequently, interest rates during the 2022/2023 tightening cycle were increased from a highly accommodative starting point, meaning that monetary policy remained broadly supportive even as nominal rates rose. This gradual transition from an accommodative to a restrictive stance helped cushion the impact on aggregate demand, supporting the "soft-landing" narrative and contributing to the relatively low observed sacrifice ratio. At the same time, the Eurosystem made its loans to banks less favourable by the repricing of targeted longer-term refinancing operations (TLTROs) which triggered a substantial early repayment of previously low-cost bank funding, tightening financing conditions. This acted as a parallel channel of monetary tightening, reinforcing policy transmission and helping to contain inflationary pressures.

Third, the composition of the inflation shock was important. While demand factors played some role between 2022 and 2024, the surge in inflation was driven largely by supply-side forces, including energy and food price shocks, as well as supply chain disruptions. As these shocks gradually faded, they contributed significantly to the disinflation process. In this context, monetary policy functioned primarily to contain second-round effects by dampening demand and anchoring inflation expectations, rather than directly offsetting the initial supply-driven price increases.

All these factors bring us to an important dimension concerning central bank credibility and its implications for policy strategy. The euro area experienced a sequence of repeated supply shocks over a relatively short period. While standard monetary policy theory traditionally advocates "looking through" temporary supply shocks, repeated episodes of above-target inflation may reduce tolerance for such deviations among firms and workers. This increases the risk that temporary shocks become embedded in expectations—even without formal de-anchoring.

This risk underscores the limitations of a strict "look-through" approach and elevates the importance of maintaining strong central bank credibility. In this environment, the observed low sacrifice ratio became a key parameter shaping policy choices. The output cost of tightening pre-emptively in response to a shock that ultimately proves temporary is relatively limited and largely reversible. By contrast, the cost of delayed action is substantially higher, potentially leading to prolonged inflation, the need for more aggressive future tightening, and a loss of credibility.

This raises an important question: did central banks deviate from the standard policy prescription of "looking through" transitory supply shocks, such as energy price increases? The rationale for this "look- through" principle is that monetary policy cannot directly offset relative price movements caused by exogenous supply disturbances. Moreover, such shocks tend to be stagflationary, pushing inflation up while simultaneously weighing on economic activity. In this setting, tightening policy may amplify output losses without addressing the root cause of inflation.

The recent evidence suggests that central banks did not abandon this framework; rather, they adapted it to a changing environment. The recent policy responses reflect a reassessment of risks, particularly the increased likelihood of second-round effects and the potential for inflation expectations to become entrenched.

In a nutshell, assessing the recent ECB's policy transmission hinges on the sacrifice ratio being a game-changing parameter, but the key risk is that what has recently appeared "low" may no longer remain so, thus making the transmission of monetary policy to the real economy less predictable. Crucially, this highlights that monetary policy transmission is inherently state dependent: the relationship between inflation and output costs, as captured by the sacrifice ratio, can vary across different macroeconomic environments. Although earlier evidence pointed to the possibility of tightening with relatively limited output costs, this assumption may no longer hold in an evolving macroeconomic environment. If the sacrifice ratio rises, the cost of delayed action increases even more sharply, as entrenched inflation would require a harsher tightening cycle; yet acting too early could also prove more damaging than expected if the output costs are no longer limited. In this context, the ECB's challenge is not simply weighing between the two errors, but recognizing that the underlying parameter guiding this trade-off - the sacrifice ratio - may be shifting, potentially making both policy waiting and premature tightening more costly than previously assumed. The sacrifice ratio should be treated as an unstable, state-dependent parameter rather than a fixed structural feature of the economy.

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