

# The European Central Bank must adapt to an environment of inflation volatility

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The European Central Bank faces three major challenges in the short and medium terms. The first is to conduct monetary policy in an environment of much tighter fiscal policy, meaning that European Union governments may be constrained in supporting the ECB's price stability objective if interest rates fall back to the zero lower bound (Darvas and Zettelmeyer, 2023). The second is the perennial problem of conducting monetary policy in the presence of fragmentation risk, a problem that the euro area has still not overcome and is unlikely to fully overcome in the medium term. Third, the ECB must adapt its monetary strategy to an environment of inflation volatility driven by supply shocks and structural changes on the supply-side of the economy.

The first two problems are generally well understood. The ECB has worked extensively to tackle them in the past, including in its 2021 monetary strategy, and through the 2022 Transmission Protection Instrument (see Reichlin *et al*, 2024, for a recent discussion). This does not mean that there are easy solutions. Indeed, in an environment of high debt and constrained national fiscal policies, durable solutions would require politically difficult steps outside the control of the central bank, including establishing a central fiscal capacity and a euro-area safe asset.

The third problem is more recent. Although the subject of a growing literature, it is not yet reflected in the ECB's monetary strategy and has not fully 'hit' the reality of monetary policy making. It is therefore what we focus on here.

## **Monetary policy in the face of supply shocks: the traditional problem and its solution**

Monetary policy acts mainly through its impact on aggregate demand. A negative supply shock increases prices while reducing purchasing power. Whether a monetary

contraction is needed to further reduce demand and contain inflation is not clear. The conventional view is that central banks should accommodate supply shocks (do nothing initially) and take action only if there is a danger that the price push leads to a wage-price spiral. This may require tightening, creating rising unemployment beyond what normally would have occurred as a result of the supply shock.

This view can to some extent explain why the ECB initially did not react to higher inflation resulting from higher energy prices in late 2021, and even after Russia's invasion of Ukraine (the other reason was worry about fragmentation risks; see Reichlin *et al*, 2024). Once inflation had shot up much more than expected, however – and as the labour market continued to be tight – the ECB sought to pre-empt a wage-price spiral by raising rates quickly and sharply, even though inflation expectations had not moved much. The result was a quick drop in inflation, though at the cost of a sharp economic slowdown.

It is too early to evaluate whether this was the right strategy<sup>1</sup>, and in any case a counterfactual scenario with less-aggressive monetary policy is hard to establish. What is clear, however, is that the environment in which supply and demand shocks happened in 2021-22, and in which they might happen in the future, might depart from the textbook model in multiple ways. To avoid major policy mistakes in the future, the ECB's strategy might need to be adjusted in several ways.

### **Monetary policy in the face of supply constraints: new problems and their implications**

The textbook view may no longer be helpful for at least five reasons.

First, it might involve not just more frequent supply shocks than advanced economies have experienced since the 1980s, but also a steepening of the supply curve. This is because supply disruptions – arising from geopolitical shocks, supply-chain disruptions, climate events and climate policies that limit the use of fossil fuel and reduce the elasticity of energy supply – imply that firms will frequently face higher marginal costs. This makes inflation more susceptible to shifts in demand, adding to inflation volatility (beyond the volatility induced by supply shocks directly)<sup>2</sup>.

Second, supply constraints are likely to affect different sectors asymmetrically. While sectors hit by a supply shock may experience shortages and inflationary pressure, others may experience insufficient demand and unemployment. In this situation,

aiming to reach the inflation target too rapidly could make it more difficult for the system to return to equilibrium, as this will require changes in relative prices (Guerrieri *et al*, 2021). For example, in the most recent inflation episode, headline inflation increased immediately but was only slowly propagated to services via the goods market (Guerrieri *et al*, 2023). This suggests that when shocks hit the economy asymmetrically, monetary authorities should lengthen the horizon for achieving the inflation target in order to facilitate the relative price adjustment.

Third, in the textbook view, monetary policy acts on demand, while leaving potential output growth unaffected. This may no longer be the case. By dampening investment and innovation, contractionary monetary policy may have long-term effects, creating a trade-off between inflation stability today and lower productivity tomorrow. In turn, low productivity growth could make the economy more inflation-prone in the future<sup>3</sup>.

Fourth, an important consequence of tight financial conditions discouraging investment is that the energy transition will happen more slowly. Preliminary evidence shows that the number of green patents is indeed affected negatively by changes in the tightness of financial conditions and that this effect is larger than for non-green patents (Fornaro *et al*, 2024). In this case, monetary policy will face a potential conflict between the primary objective of price stability and the secondary objective of successful emissions reduction. Since the ECB's mandate does not allow it to compromise price stability, addressing this trade-off is mainly a task for fiscal policy. That said, there is also a role for ECB policies in ameliorating the trade-off, as explained below.

### **Implications for monetary policy and the monetary-fiscal policy mix**

The above discussion is relevant for at least three policy problems that the ECB's next strategy review should address.

#### ***1 The horizon for reaching price stability***

While the ECB's mandate rules out a trade-off between price stability and secondary objectives, there can be a trade-off in terms of the speed with which the primary mandate is attained (because it must hold over the medium term, and the definition of the medium term is a matter of judgment). Depending on whether it helps or hurts the secondary objective, the return to price stability could be accelerated, or the ECB could be patient. For example, after a negative supply shock that hurts both output and

raises inflation, the ECB could be more patient. After a negative demand shock that drives interest rates close to the zero lower bound and creates problems for financial stability, the ECB could be more aggressive.

There is a need to establish a framework for flexible inflation targeting in which the time horizon for reaching the objective is linked to the cost in terms of secondary objectives.

## ***2 The definition of price stability***

Relative price changes have an impact on the optimal level of inflation targeting. In a realistic situation in which prices are sticky, systematic firm-level productivity trends imply higher optimal trend inflation and therefore a higher inflation target. As Adam and Weber (2019) showed empirically for Italy and the UK, that level should be higher than 2 percent.

This does not necessarily mean that the euro-area inflation target should be raised. But it suggests that the inflation target should be reviewed in light of the changing structure of the economy and of the economic shocks driving inflation. To allow the ECB to do this without risking a loss of credibility – as may occur if the inflation target is seen as ‘following’ actual inflation – it would be advisable to revise the numerical inflation target regularly, on the basis of a calendar established in advance (Reichlin *et al.*, 2021).

## ***3 Reinforcing monetary-fiscal coordination***

As argued above, monetary policy may have non-neutral effects on productivity and the reallocation of investment. In particular, sluggish aggregate demand driven by contractionary monetary policy may penalise green investment and slow the energy transition.

Given the ECB’s primary mandate, the appropriate response would not be to rely on monetary policy alone but rather to design an appropriate monetary-fiscal mix with targeted fiscal policy offsetting the undesirable effects of price-stabilising monetary policy. From a policy-design perspective, the ECB should consider the combined effects of monetary and fiscal policy on prices, productivity and whether green investment happens in sufficient amounts.

With a single monetary authority and several independent fiscal authorities, this is hard to do. Better coordination among fiscal authorities and/or a larger EU budget would help but this is politically difficult. However, because the motivation would be to reconcile price stability, emissions reduction and productivity growth, it may be less difficult than common fiscal policy for the purpose of raising aggregate demand.

To conclude, among several challenges ahead for the ECB, the toughest relates to the increasingly important links between monetary policy and the supply side of the economy. This will make inflation control harder and will increase the impact of ECB policy beyond the short and medium terms. The ECB must face up to this challenge.

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## Endnotes

1. Most recently, on 6 June 2024, the ECB cut rates by 0.25 percentage points, arguing its policy to combat inflation had succeeded and it was time “to moderate the degree of monetary policy restriction.” See Christine Lagarde, ‘Why we adjusted interest rates’, The ECB Blog, 8 June 2024, <https://www.ecb.europa.eu/press/blog/date/2024/html/ecb.blog240608~aa46b5f2a0.en.html>.
2. Important contributions on the relevance of supply constraints for understanding inflation include Boehm and Pandalai-Nayar (2022), Fornaro and Romei (2024) and Comin et al (2024).
3. Recent research investigating the long-term effects on monetary policy on economic activity includes: Benigno and Fornaro (2019), Fatás and Singh (2022), Stadler (1990), Moran and Queralto (2018), Grimm et al (2022), Amador (2022), Fornaro and Wolf (2023), Jordà et al (2023), Ma (2023) and Ma and Zimmermann (2023). See also Demertzis (2024).



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