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Overcoming myopia in the ECB's 2025 monetary policy strategy review

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05.05.2025

Executive Summary*

- **The ECB's strategy is under review, and rightly so.** Recent inflation shocks have exposed weaknesses in the ECB's current approach. It focuses too narrowly on medium-term inflation expectations and relies almost exclusively on interest rate adjustments.
- **The strategy is blind to structural inflation risks.** Supply-side disruptions, corporate pricing power, and climate-related shocks were key drivers of the 2022-23 inflation surge, yet these risks lie outside the ECB's analytical framework and time horizon.
- **Rate hikes alone are a blunt and costly tool.** The ECB's reactive approach left it with few options beyond raising rates, which did little to curb cost-push inflation at the source and risked undermining investment in long-term resilience, especially in clean energy.
- **The ECB's framework can be updated.** Though mindful of 1970s-style inflation and inspired by the Bundesbank's success in fighting it, the drafters of the ECB mandate recognised the uniqueness of these circumstances and deliberately gave the central bank the flexibility to adapt to new economic challenges.
- **The 2025 review is a chance to do so.** The ECB must equip itself to detect and address structural risks before they materialise - and coordinate more effectively with other EU policy tools to preserve price stability in turbulent times.
- **This report makes three policy recommendations:**
  1. **Broaden the time horizon** of the ECB's strategy to include the long-term preconditions for price stability.
  2. **Create a third analytical pillar** dedicated to long-term risks, including climate change, energy dependence, demographics, market power and geopolitical disruptions.
  3. Embed monetary policy in a **wider EU inflation governance framework** that supports strategic coordination with fiscal, industrial and competition policies.

#MONETARYPOLICY
#INFLATION
#ECB

* I want to thank Max Krahé for his very helpful comments and detailed edits as well as Ludovic Suttor-Sorel, Aurora Li and the rest of the Dezernat team for their editorial support.

Extended summary

The European Central Banks (ECB) monetary policy strategy specifies its price stability objective and its approach to achieving it. Since starting operations in 1998, the ECB has reviewed that strategy and made minor changes in 2003 and 2021. A new review is taking place this year.

The recent wave of record inflation has revealed limits in the ECB's current strategy. Policy deliberation in its Governing Council has a narrow focus on expected consumer price increases on a two- to five-year time horizon, which also shapes its analytical framework. This focus reflects a specific theory of what is needed to achieve price stability derived from the Bundesbank's success in taming inflation during the 1970s. Using a credible commitment to act on excessive demand, the ECB seeks to "anchor" inflation expectations and prevent self-reinforcing price-wage dynamics.

In the face of large and persistent shocks, however, this approach creates a stark dilemma[1]. Unlike in wage bargaining or fiscal policy, where strategic players internalise the expected central bank reaction, well-anchored inflation expectations proved ineffective in preventing inflation driven by large, heterogeneous supply shocks and implicit coordination in firm pricing. As a result, the current ECB strategy did not prevent the initial surge of inflation from late 2021 on.

Once a surge of this kind is underway, the central bank's existing approach leaves it stuck between a rock and a hard place. It can do nothing and wait for the effects of the shock to dissipate; however, this still carries the risk of de-anchoring expectations. Alternatively, it can turn to economy-wide interest rate policy to bring down demand. This is effective at reining in inflation, but comes with collateral damage to investment, jobs and growth.

To escape this dilemma, the optimal policy is neither to aggressively hike rates nor to do nothing; it is to pre-emptively avert such circumstances in the first place. This, however, requires a conception of price stability that is not limited to a medium-term time horizon. Prior to 2021, the ECB had a monetary pillar dedicated to threats to long-term price stability. Given its narrow focus on monetary aggregates, however, this pillar was abandoned, leaving the ECB without an analytical lens that reaches beyond the medium term.

Hence this report's main conclusion: **The ECB must overcome the myopia embedded in its current strategy and analytical framework.** Specifically, the ECB should:

1. Broaden **the time horizon** of its monetary policy strategy to make the long-term preconditions of price stability part of the price stability objective
2. Integrate the analysis of latent and structural risks to price stability **into a third long-term pillar of its analytic framework**
3. Position its monetary policy strategy within a **wider EU inflation governance framework**, emphasizing complementarities and scope for coordination.

Moreover, building on recent scholarship, this report shows that the ECB's legal mandate leaves ample room to introduce the necessary reforms. The drafters of the mandate deliberately left the monetary policy strategy open, allowing it to "respond adequately to changing market conditions". Doing so now will equip the ECB to identify and potentially remedy structural risks to price stability before they materialise. When shocks do occur, as they inevitably will, both their impact as well as their proliferation and amplification may then be meaningfully dampened.

1 Christine Lagarde, 'A Robust Strategy for a New Era' (25th ECB and Its Watchers conference organised by the Institute for Monetary and Financial Stability, Goethe University Frankfurt, 12 March 2025), https://www.ecb.europa.eu/press/key/date/2025/html/ecb.sp250312~915537d675.en.html.

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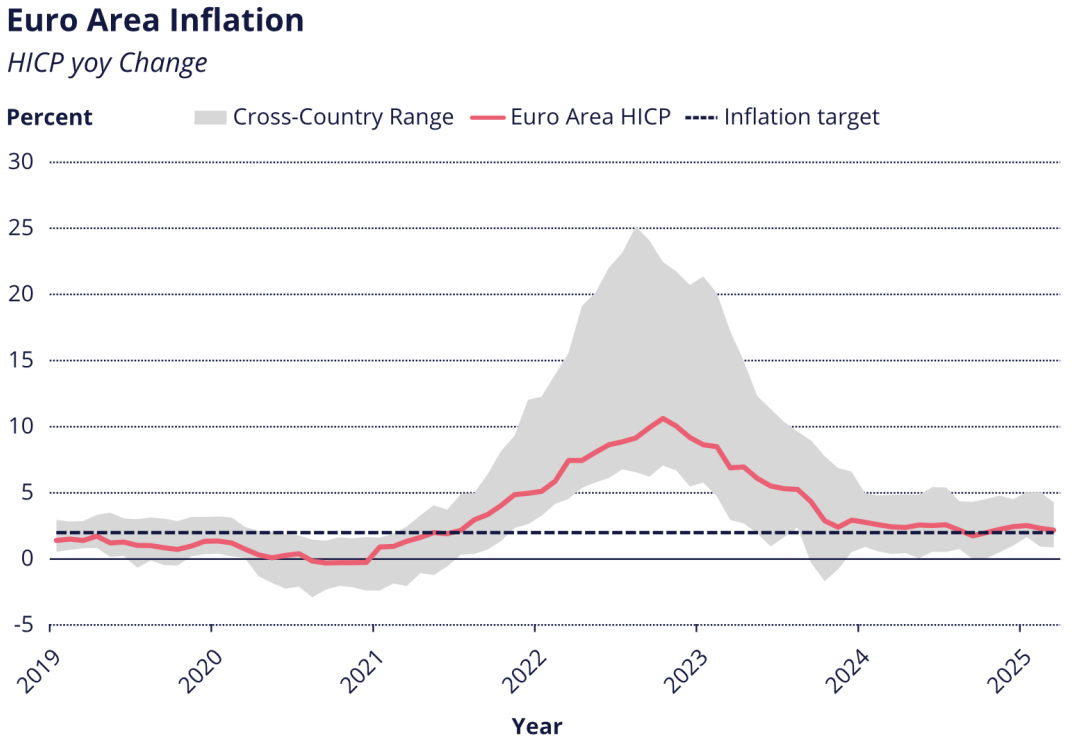
1. Introduction

The 2022 inflationary experience saw the European Central Bank fail to achieve its 2% inflation target, with inflation in some Member States reaching double digits (Figure 1). This report investigates which lessons are to be drawn from that experience. It asks: what changes are needed to the ECB's monetary policy strategy in order for it to be adequately prepared for more volatile economic circumstances, such as those of the immediate aftermath of the COVID-19 pandemic or a trade war?

The ideas concerning inflation and price stability **that inform the ECB's monetary policy strategy have not changed dramatically since the 1990s.** The ECB's understanding of the transmission mechanism between monetary policy and price stability focuses on the business cycle and economy-wide demand, particularly as driven by wage growth and government spending. By implementing a credible commitment to act on excessive demand, central banks today seek to "anchor" inflation expectations and prevent self-reinforcing dynamics of higher wages and prices from emerging.



The line shows the Euro Area HICP (Harmonised Indices of Consumer Prices) as reported by Eurostat. The grey shaded area shows the range between the min and the max value among the Euro Area countries in the respective month.

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Figure 1: Euro Area Inflation; **Sources:** Macrobond, Eurostat

This report makes the case that **the ECB's current monetary policy strategy is unduly myopic.** In counteracting inflation, the ECB's 1998, 2003 and 2021 strategies have a medium-term focus, seeking to stabilise inflation over a two- to five-year time horizon. As a result of this medium-term focus, the current strategy lacks a framework to consider the long-term economic preconditions of price stability. This allows certain risks to price stability to build up under the radar, such as overextended supply chains, changes in firm pricing strategies, energy dependencies, demographic pressures from an ageing workforce, or the rising risks of trade conflicts or geopolitical conflict. **Independently of whether the central bank is the best place to address each of these particular risks, it should maintain a systematic awareness of all of them.**

The strategy also focuses the ECB's attention on demand-focused measures. However, not all risks to price stability are best managed via demand-side measures. This was the case for the main drivers of the post-pandemic inflation, for example, which fell almost entirely outside the scope of the ECB's current monetary policy strategy. That inflation originated in long and ultimately brittle and overextended supply chains and from unreliable access to energy as an economic input. European policymakers had not paid enough attention to these drivers in the years leading up to 2022. These sectoral disruptions in turn coalesced into economy-wide inflation through anti-competitive firm pricing strategies. Such "sellers' inflation" was possible because a synchronous rise in costs allowed competing firms to anticipate and coordinate price increases. This allowed firms to raise prices without the fear of losing market share.

The ECB's **aggressive use of demand-focused monetary policy measures helped bring down inflation, but also had clear limitations.** Looking at the 2022 experience implies clear lessons for the review of the ECB's strategy. (1) Economies can become so vulnerable to shocks that central banks may struggle to mitigate their immediate effects with existing instruments. **Even ex ante well-anchored inflation expectations proved ineffective in addressing inflation driven by large and heterogeneous supply shocks and amplified by firm pricing strategies. (2) The ECB's strategy of waiting for supply shocks to dissipate proved inadequate.** While there were good reasons to wait initially, this approach left the ECB with few good options as inflation surged. (3) Using conventional monetary policy tools in this context also **had important downsides** from the perspective of long-term price stability. Curbing demand via interest rate increases can undermine long-term price stability by increasing the cost of crucial investments, particularly in clean energy. This **myopic approach makes the EU economy more vulnerable to future inflationary shocks.**

This report's main policy conclusion is that **the ECB should extend the time horizon over which it considers and acts on risks to price stability.** Extending this time horizon will allow the central bank to better identify and deal with existing trade-offs between the use of demand-focused interest rate hikes and their negative impact on both the supply-side long-term preconditions of price stability and the broader economic policies of the EU. These trade-offs exist irrespective of whether inflation has demand- or supply-side origins. Incorporating these preconditions into the strategy will allow the ECB's Governing Council to take them into account in its deliberations, e.g. for avoiding the trade-off by setting distinct interest rates for distinct purposes for which money is used.

Accordingly, this report makes three proposals. The ECB should

- **Broaden the time horizon of the ECB's strategy** to make the long-term preconditions of price stability part of the price stability objective
- Integrate the analysis of long-term risks to price stability into **a third long-term price stability pillar of the analytic framework**
- **Position the ECB's strategy within a broader EU inflation governance framework,** emphasising complementarities and scope for coordination.

The report is structured as follows: Chapter 2 sets out the most recent legal research on the interpretation of the ECB mandate, presenting recent archival evidence concerning the deliberate choice to provide the ECB with ample scope for revising its monetary policy strategy. Chapter 3 turns to the strategy's medium-term objective and its associated understanding of the transmission mechanism. Chapter 4 turns to the 2022 post-pandemic inflation episode to draw out important lessons for the monetary policy strategy review. Chapter 5 makes three proposals for said review.

2. The ECB's mandate and the historical origins of the strategy review

This chapter explores the historical context of the drafting of the ECB's mandate, focusing on the evolution of central banking strategies since the 1970s. It draws on recent legal and historical research into the ECB mandate.[2] The success of the Bundesbank in managing inflation through rate hikes during supply shocks, such as higher oil prices, significantly influenced the ECB's approach. This success, however, reflected a historical context in which the amplification of inflation was driven by wages and government spending. The drafters of the ECB mandate were aware of the specificityof the circumstances in which that approach had worked. They deliberately gave the ECB space to adapt its strategy in the face of new circumstances. This highlights the important role of strategy reviews in updating the ECB's approach in response to new economic challenges: There is ample scope within the legal confines to respond with a thoroughly revised strategic reform to today's new drivers of inflation. This open mandate also places a responsibility on the ECB to revise its monetary policy strategy when facing new drivers of inflation.

2.1 The 1970s as a model for inflation fighting?

From the 1970s onwards, European central banks converged on interpreting their missions as the pursuit of a price stability objective, which the central bank could achieve by focusing on two crucial drivers of excessive demand: wages and government spending.

In the years leading up to the signing of the 1992 Maastricht Treaty, the idea that monetary policy should take the lead in fighting inflation had become a subject of agreement within the community of central bankers.[3] In the background of this new monetary policy focus was a specific critical diagnosis of democratic governance: the inability of democratic capitalism to resolve conflicts between capital, labour and government spending.[4] This had led to the inflationary crisis of the 1970s, where the two oil shocks had translated into more persistent inflation via economy-wide demand from wages and government spending. Then, and in contrast to 2022, wage demands exacerbated the inflationary shock, turning the initial price increase into a decade of double-digit inflation. The 1975 report of the Trilateral Commission diagnosed the record levels of inflation as a crisis of democracy:

> Inflation can be considered a direct result of the ungovernability of Western democracies. It is an easy answer to the tensions of growth. The less a society is capable of facing them, the readier it is to accept inflation as a less painful solution. [...] Basically, governments appear to be unable to induce groups which are in strategic positions to accept sacrifices.[5]

2 This chapter draws extensively on Jens van 't Klooster, 'The Case for a European Credit Council: Historical and Constitutional Fine-Tuning', *Accounting, Economics, and Law: A Convivium* 14, no. 4 (1 November 2024): 519–32, This chapter draws extensively on Jens van 't Klooster, 'The Case for a European Credit Council: Historical and Constitutional Fine-Tuning', Accounting, Economics, and Law: A Convivium 14, no. 4 (1 November 2024): 519–32, https://doi.org/10.1515/ael-2022-0074 and a book project on the history of monetary policy since the 1970s.

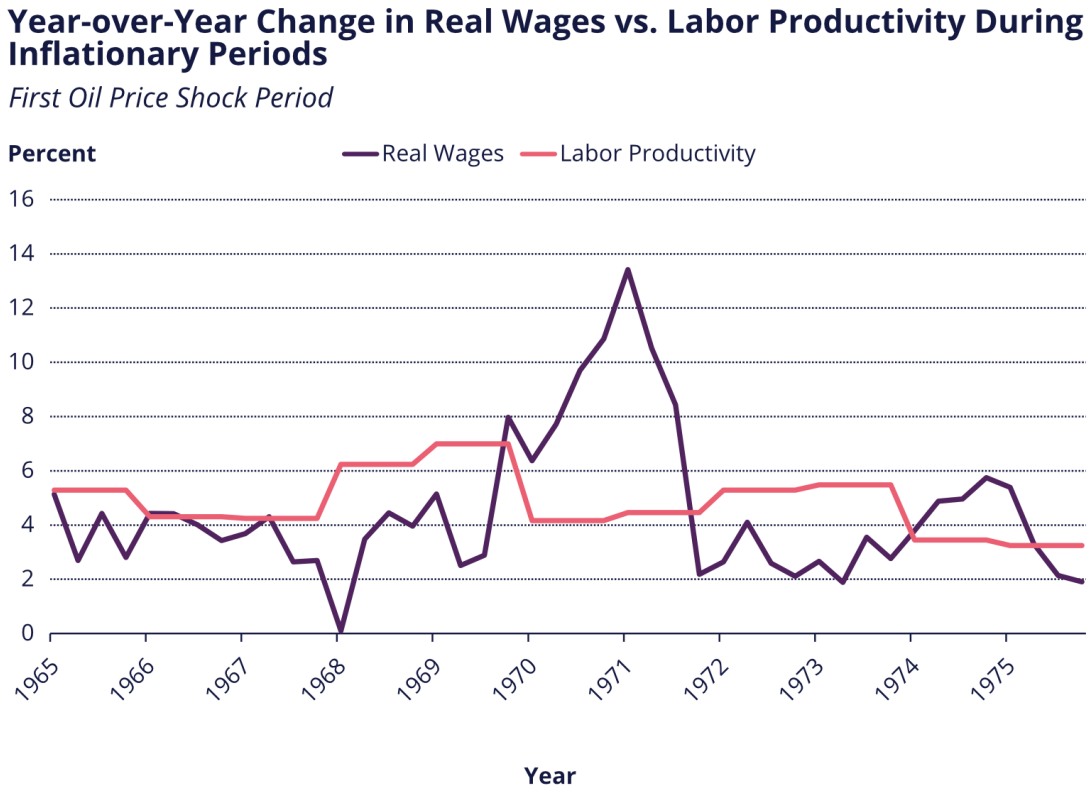
3 Kathleen McNamara, *The Currency of Ideas: Monetary Politics in the European Union* (New York, NY: Cornell University Press, 1998); Harold James, *Making the European Monetary Union* (Cambridge, MA: Harvard University Press, 2013).

4 Thomas J. Sargent and Neil Wallace, 'Some Unpleasant Monetarist Arithmetic', *Quarterly Review* 5, no. Fall (1981); Leon Lindberg and Charles Maier, *The Politics of Inflation and Economic Stagnation* (Washington D.C.: Brookings Institute, 1985), https://www.brookings.edu/book/the-politics-of-inflation-and-economic-stagnation__trashed/.

5 Michel Crozier, Samuel P. Huntington, and Joji Watanuki, *The Crisis of Democracy: Report on the Governability of Democracies to the Trilateral Commission* (New York: New York University Press, 1975), 37–38. Lindberg and Maier, *The Politics of Inflation and Economic Stagnation*; Stefan Eich and Adam Tooze, 'The Great Inflation', in *Vorgeschichte der Gegenwart. Dimensionen des Strukturbruchs nach dem Boom*, ed. Anselm Doering-Manteuffel, Lutz Raphael, and Thomas Schlemmer (Berlin: Vandenhoeck & Ruprecht, 2016), 173–96.

Countries with independent central banks did better at navigating these conflicts. As a result, over the course of the 1970s and 1980s, inflation governance was placed outside of democratic politics and entrusted primarily to central banks.[6]

By credibly committing to bring down economy-wide demand through its interest rate instrument, the Bundesbank managed to stop the ongoing wage-price spiral (Figure 2).[7] A crucial part of that success was credibility. In 1973, the Bundesbank let money market rates climb up to 20% (with spikes of up to 40%).[8]



Real wages are calculated as the hourly wage rate in manufacturing minus CPI inflation. Labor productivity is defined as GDP divided by total hours worked.

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Figure 2: Year-over-Year Change in Real Wages vs. Labor Productivity During Inflationary Periods; **Sources:** Destatis, Eurostat, OECD, Our World in Data

6 John Singleton, Central Banking in the Twentieth Century (Cambridge: Cambridge University Press, 2010); Greta R. Krippner, Capitalizing on Crisis (Harvard University Press, 2011); Leon Wansleben, The Rise of Central Banks: State Power in Financial Capitalism (Cambridge, MA: Harvard University Press, 2023).

7 While concerned about the first oil shock, the Bundesbank's main concern in 1973 was preventing a wage-price spiral. As it explained in its Annual Report for that year: "The oil-producing countries' striving for a larger share in the national product and national income of the industrial countries need not necessarily result in a further acceleration of the pace of price rises. Whether this occurs depends in every country very greatly on whether it is made easier or more difficult to pass on the higher prices of these (and other) major imports – in other words, on whether the intensification of the international distribution struggle triggered off by the oil-producing countries' price agreement is followed by an intensification of the domestic struggle for the distribution of the national income, which in real terms is hardly growing." (BuBa, 'Annual Report 1973' (Frankfurt: Bundesbank, 1974), 1).

8 BuBa, 4.

However, **West Germany's inflation record also rested on coordinated wage bargaining, wage moderation and support for anti-inflationary policies. In this specific context, the Bundesbank's role was to safeguard these institutional features**, which in turn stabilised demand. This worked because of the specific circumstances of the early 1970s when wages and fiscal deficits were clearly major drivers of inflation. By 1970, wage moderation had brought German unemployment down to 0.7%. In the following years, wages went up far in excess of consumer price inflation. The belated postwar expansion of the German welfare state also led to a dramatic increase in government spending.

The post-pandemic inflation, as we will explore in more detail in Chapter 3, did not primarily reflect such demand-side drivers.[9] Wages only went up after the cost shocks and the level of government spending increased only modestly, despite the exceptional circumstances of the pandemic (Figures 3, 4).

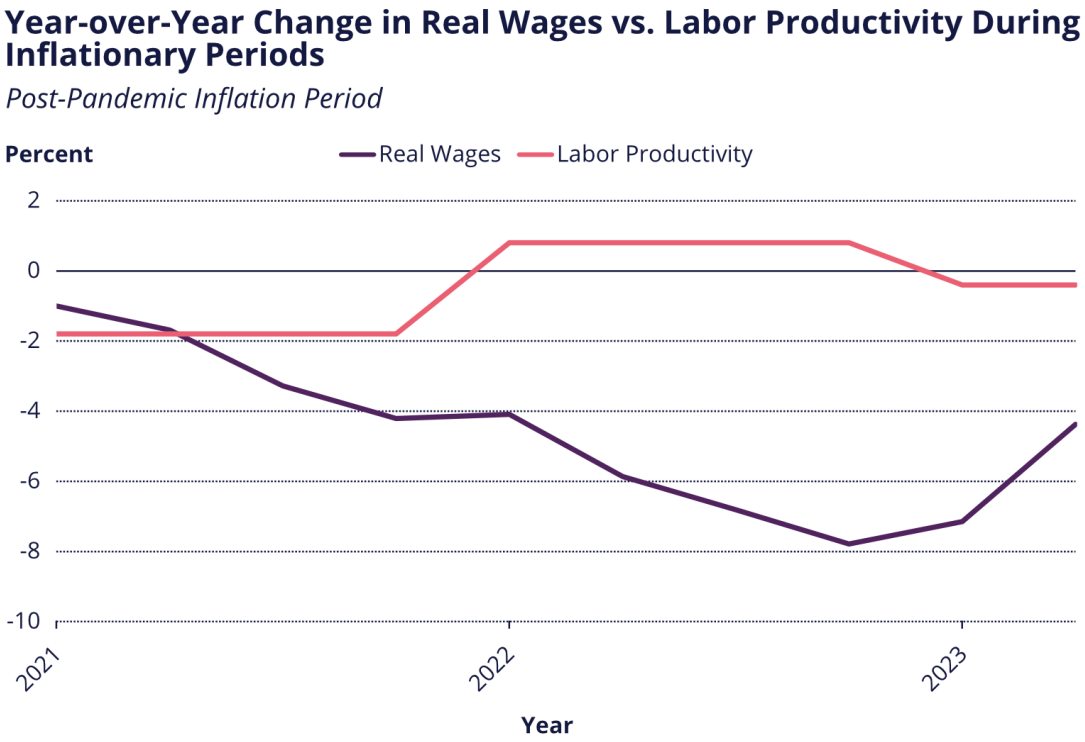

Figure 3: Year-over-Year Change in Real Wages vs. Labor Productivity During Inflationary Periods; **Sources:** Destatis, Eurostat, OECD, Our World in Data

9 See also Óscar Arce, Elke Hahn, and Gerrit Koester, 'How Tit-for-Tat Inflation Can Make Everyone Poorer', ECB Blog, 30 March 2023, https://www.ecb.europa.eu/press/blog/date/2023/html/ecb.blog.230330~00e522ecb5.en.html; ECB, 'How Have Unit Profits Contributed to the Recent Strengthening of Euro Area Domestic Price Pressures?', *Economic Bulletin*, no. 4 (2023).

Figure 4: Euro Area comparison of GDP Deflator Increase to Previous Energy Price Shocks; **Sources:** Figure from Niels-Jakob Hansen, Frederik Toscani, and Jing Zhou, Euro Area Inflation After the Pandemic and Energy Shock: Import Prices, Profits and Wages, WP/23/131 (International Monetary Fund, 2023).

The Bundesbank could shape the drivers of demand primarily because trade unions and the West-German government sought to avoid the negative economic impact of the independent central bank's high rates.[10] **The same mechanism is unlikely to work today.** Firm pricing strategies have become the main amplifier of any initial price shock. Since the market power of firms in many markets today is roughly analogous to that of fragmented and decentralised trade unions in the 1970s, the threat of macroeconomic punishment is unlikely to deter them: they are neither so coordinated at the aggregate level as to internalise such punishment ex ante, nor so subject to competition as to lack power over price setting in the first place. Furthermore, even for wage bargaining, the euro area also lacks institutions of coordination. It would accordingly be a mistake to interpret the German experience during the first oil crisis as evidence for the general efficacy of monetary policy contraction as a way for the ECB to respond to supply shocks.

2.2 The deliberate openness of the ECB mandate

When European central bank governors drafted the ECB's mandate, they gave the central bank a simple objective of "maintain[ing] price stability" as well as strong provisions safeguarding its independence. At the same time, the drafters left important questions open for the future central bank itself to decide. The ECB mandate does not set out an interpretation of the price stability objective nor does it place meaningful constraints on the instruments that the ECB can use.[11]

This choice was deliberate. As the governor of the French central bank, Jacques de Larosière, noted at an early meeting on the new mandate, there was a shared concern that they "should be careful not to limit the scope of the System". Rather, the mandate "should be evolutionary and designed to deal with unforeseen circumstances".[12] Indeed, when the draft statutes were published in anticipation of the Intergovernmental Conference of 1992, **its commentary stated that the mandate was designed "with due regard to the evolutionary nature of financial markets" so that the central bank would be able to "respond adequately to changing market conditions"**.[13] It was left to the ECB itself to regularly update its interpretation of the price stability objective and its means of pursuing said objective in its monetary policy strategies.[14]

10 Peter A. Hall and Robert J. Franzese, 'Mixed Signals: Central Bank Independence, Coordinated Wage Bargaining, and European Monetary Union', *International Organization* 52, no. 03 (1998): 505–35; Bob Hancké, *Unions, Central Banks, and EMU: Labour Market Institutions and Monetary Integration in Europe* (OUP Oxford, 2013).

11 Committee of Governors, "Draft Statutes of the European System of Central Banks and the European Central Bank with an Introductory Report and a Commentary" (Brussels: Europe Agence, December 1990), 16.

12 CoG, 'Minutes of the 249th Meeting on 13 November 1990' (Basel: Committee of Governors of the Central Banks of the Member States of the European Economic Community, 13 December 1990), 4.

13 CoG, 'Draft Statutes of the European System of Central Banks and the European Central Bank with an Introductory Report and a Commentary' (Brussels: Europe Agence, December 1990), 16.

14 Committee of Governors, "Draft Statutes of the European System of Central Banks and the European Central Bank with an Introductory Report and a Commentary" (Brussels: Europe Agence, December 1990), 16.

Beyond the primary mandate of maintaining price stability, Article 127(1) of the Treaty on the Functioning of the European Union (TFEU) contains two further specifications of the ECB's objectives. After setting out the primary objective of price stability, a second sentence states that "without prejudice to the objective of price stability", the ECB also has as its objective to "support the general economic policies in the Union". The provision provides limited further specification by adding that ECB should support those general policies with the objective of contributing to the objectives of the EU itself, which are outlined in Article 3 of the Treaty on European Union (TEU). Article 3 TEU contains a long list of policy priorities such as "full employment and social progress" and "the quality of the environment", but also "ensuring that Europe's cultural heritage is safeguarded and enhanced". There is no ranking among these objectives.

The third sentence of Article 127(1) contains an even less determinate provision, which requires that the ECB acts "in accordance with the principle of an open market economy" (127(1) TFEU. As the commentary included with the draft mandate explains, this provision serves to preclude directly allocative instruments such as credit ceilings. The focus is on the direct control, not the allocative effect of such measures:

> this Article enables the ECB and national central banks to regulate indirectly – and without recourse to administrative controls or restrictions – money and credit market conditions. This form of monetary management relies on financial incentives, leaving it to private market participants to respond voluntarily[.][15]

This was also clear to all central bankers involved in drafting the mandate. During the drafting, the Dutch central bank governor Wim Duisenberg asked whether the idea of making monetary policy but adhering to the market made sense to begin with:

> some of the actions undertaken by central banks could always be regarded as inconsistent with free and competitive markets; for example, the setting of key official interest rates could be seen as an exogenous act which might not be in conformity with local market conditions.[16]

After reflecting on this matter, the drafters felt confident that whatever interpretation was given to the provision, it would not constrain the ECB in pursuing policies that focused on steering prices in financial markets.

The mandate also leaves a wide scope for the ECB to make allocative decisions in the design of instruments. The generality of the mandate is unlike many of its national predecessors, which often had detailed provisions for permissible instruments.[17] The Bundesbank, for example, was subject to very detailed risk management provisions pertaining to individual asset classes.[18] Article 18 of the ECB Statutes, in contrast, permits it to "operate in the financial markets by buying and selling outright (spot and forward) or under repurchase agreement and by lending or borrowing claims and marketable instruments, whether in euro or other currencies, as well as precious metals" as well as "conduct credit operations with credit institutions and other market participants", the latter subject to the condition that it is based on "adequate collateral". Article 123 TFEU prohibits the direct purchase of public debt, but allows (economically more or less equivalent) for "the purchase of government bonds in securities markets".[19]

15 CoG, 'Draft Statutes of the European System of Central Banks and the European Central Bank with an Introductory Report and a Commentary', 16.

16 CoG, 'Minutes of the 249th Meeting on 13 November 1990', 4.

17 EMI, "Eligible Instruments for Mobilisation and Pledging during Stage 3 of EMU", Monetary Policy Sub-Committee Task Force on Eligible Debt Instruments for Mobilization and Pledging (Frankfurt: European Monetary Institute, November 1995), 3.

18 Law concerning the Deutsche Bundesbank of 1957, Articles 19 to 25.

19 CoG, 'Draft Statutes of the European System of Central Banks and the European Central Bank with an Introductory Report and a Commentary', 11; cf. Philipp Orphal, Florian Kern, and Max Krahé, 'Zinsen Statt Geldmengen' (Berlin: Dezernat Zukunft, 2022), https://www.dezernatzukunft.org/wp-content/uploads/2022/10/Zinsen-statt-Geldmenge-1.pdf.

While the generality of the provision was striking, the fact that the ECB would also be allowed to make allocative choices in the design of operations did not raise any eyebrows. At the time, all European central banks made some allocative choices in their operations, in particular for supporting the export sector.[20] Against this background, the ECB mandate was designed to allow for selective lending programmes such as the targeted longer-term refinancing operations (TLTROs) introduced by the ECB in 2014. In preparatory notes for a meeting on the statutes in 1990, central bankers note that Article 18 of the ESCB (European System of Central Banks) Statutes allows for "rediscounting at a preferential rate with ceilings by bank or for certain types of credit", subject to the caveat that the ESCB would "follow the same rules in all the member states".[21] All members of the Committee of Governors were aware of allowing for selective credit policies, since this was clearly stated in the underlying documents for the meetings. However, the governors did not even think they required discussion in the Committee meetings. Throughout the drafting period, discussions regularly returned to the need to maintain sufficient discretion.[22]

Accordingly, the drafters of the ECB mandate intentionally left the option open for the ECB to thoroughly revise its strategy for dealing with inflation, if the situation should require it. As Article 127(2) of the Treaty sets out, the ECB's task is not merely to "implement", but to "define" its monetary policy.

This very openness of the mandate also implies specific duties. First and foremost is a duty to justify: To explain the specification of its conception(s) of price stability and the instrument designed to pursue its objectives. Further, it also places on the ECB a responsibility to use the most up-to-date technical expertise and economic knowledge: If the best available understanding of what inflation is and what drives it changes, this should have implications for how the ECB approaches its mandate. When inflation is no longer solely, or even primarily, driven by excessive demand, the ECB must reconsider its monetary policy framework.

20 Eric Monnet and Jens van 't Klooster, 'Using Green Credit Policy to Bring down Inflation: What Central Bankers Can Learn from History', INSPIRE Sustainable Central Banking Toolbox Policy Briefing Paper, 2023, https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2023/07/INSPIRE-Sustainable-Central-Banking-Toolbox_13.pdf.

21 CoG, 'Special Report on the Operations of a European Central Bank System', Monetary Policy Sub-Committee (Basel: Committee of Governors of the Central Banks of the Member States of the European Economic Community, 1990), 19.

22 For example, the Governor of the Central Bank of Ireland expressed a worry based on Article 18 of the Statutes that it would lock the ECB into "a prescribed method of monetary control". For this reason, the current Article 20 was added, which permits the ECB "the use of such other operational methods of monetary control as it sees fit", although in this case requiring a two-thirds majority in the Governing Council.

3. The ECB's monetary policy strategy and its medium-term orientation

This chapter explores the ECB's monetary policy strategies to date, focusing on their medium-term orientation. **The medium-term focus on expected inflation a few years ahead is not set out in the ECB's mandate but has been a key feature of its strategies since 1998.** It enables the ECB to assess the origins of shocks, respond flexibly to different kinds, and avoid overreacting to temporary disturbances, thereby preventing unnecessary economic volatility. This chapter also discusses the ECB's analytical framework, which includes an economic pillar focused on short to medium-term price developments and a monetary-financial pillar that examines the transmission of monetary policy. However, the current framework lacks an analytical pillar focused on long-term risks to price stability, severely limiting the understanding of "price stability" implicit in the ECB's current interpretation of Article 127(1).

While acknowledging considerable uncertainty and heterogeneity concerning the drivers of inflation, the ECB's 1998, 2003 and 2021 strategies all share a foundational commitment to pursuing price stability with a medium-term orientation. This does not derive from the mandate, which specifies the term "price stability" but gives no further interpretation.[23] The ECB's interpretation of this term has undergone subtle shifts in the past years, but has not seen any major changes. In the 1998 review, the measure for evaluating whether the objective had been achieved was specified as "a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%", which in 2003 was reformulated as the more poetic "below, but close to, 2%". In 2021 the ECB once more revised this to the current symmetric target of 2%.

3.1. The ECB's medium-term orientation

The ECB's monetary policy strategy serves to maintain inflation expectations well anchored on the target. Shocks can change the inflation outlook, leading to de-anchoring. However, rather than responding to every shock, the ECB's strategies all define its objectives as medium-term, which is itself not strictly defined. A background paper to the 2021 strategy review specifies it as "the point in time, looking forward, by which the central bank has to be reasonably confident that it can deliver on its objective based on the current policy stance".[24] It is typically understood to correspond to a period of two to five years.

There are **good reasons for this medium-term orientation compared to a strategy that is overly focused on the short term**.

The 2021 review set out two reasons pertaining to the uncertainty concerning the economy and the need to respond differently to demand and supply shocks on the basis of its secondary mandate.[25]

23 ECB, 'A Stability-Oriented Monetary Policy Strategy for the ESCB' (Brussels: European Central Bank, 1998), https://www.ecb.europa.eu/press/pr/date/1998/html/pr981013_1.en.html; ECB, 'The Outcome of the ECB's Evaluation of Its Monetary Policy Strategy', *Monthly Bulletin*, 2003, 79–92; ECB, 'An Overview of the ECB's Monetary Policy Strategy' (Frankfurt: European Central Bank, 8 July 2021), https://www.ecb.europa.eu/home/search/review/html/ecb.strategyreview_monpol_strategy_overview.en.html.

24 Martina Cecioni et al., 'The ECB's Price Stability Framework: Past Experience, and Current and Future Challenges', Occasional Paper Series (Frankfurt: European Central Bank, September 2021), 67, https://ideas.repec.org//p/ecb/ecbops/2021269.html.

25 ECB, 'An Overview of the ECB's Monetary Policy Strategy'.

First, the medium-term orientation **serves to manage uncertainty** and to have time to properly interpret shocks.[26] Controlling inflation in the short term is challenging due to uncertainties around how the economy will develop and how monetary policy will impact it. The precise impact of interest rate interventions on overall price-level growth is indirect, non-linear, and unfolds over months, defying straightforward explanation. Central bank actions not only shape the financing environment for households and firms but also shape expectations of future economic trends. These effects together, in turn, shape household spending, business investments, and the balance of payments, thereby affecting aggregate demand and, ultimately, price levels (see Figure 5).

An overview of monetary policy transmission channels

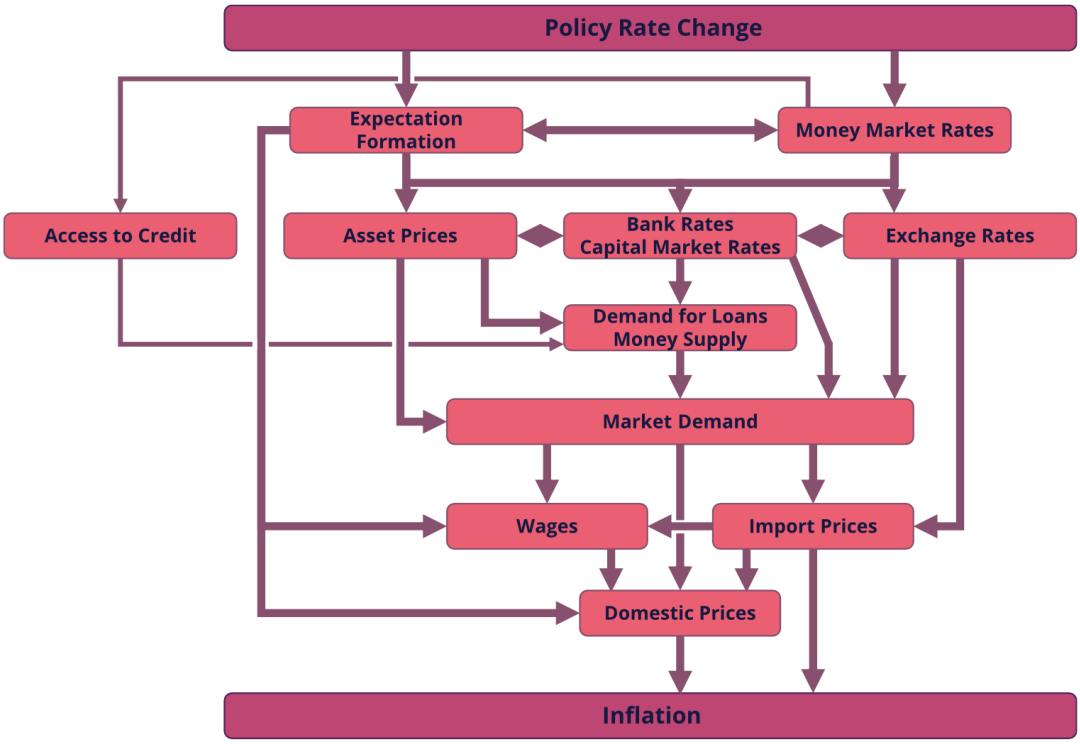

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Figure 5: An overview of monetary policy transmission channels; **Source:** Dezernat Zukunft, drawing on Bundesbank (2024) Geld und Geldpolitik: Schülerbuch für die Sekundarstufe II, p. 158

26 This is already an optimistic account of how much central banks actually understand about transmission. See also Daniel K. Tarullo, 'Monetary Policy without a Working Theory of Inflation', Hutchins Center Working Paper (Washington: Brookings Institution, 4 October 2017), https://www.brookings.edu/research/monetary-policy-without-a-working-theory-of-inflation/; Jeremy B. Rudd, 'Why Do We Think That Inflation Expectations Matter for Inflation? (And Should We?)', *Finance and Economics Discussion Series*, Finance and Economics Discussion Series (Board of Governors of the Federal Reserve System (U.S.), 24 September 2021), https://ideas.repec.org/p/fip/fedgfe/2021-62.html; Carlo Altavilla et al., 'Assessing the Efficacy, Efficiency and Potential Side Effects of the ECB's Monetary Policy Instruments since 2014', *Occasional Paper Series*, Occasional Paper Series, September 2021, 20, https://ideas.repec.org//p/ecb/ecbops/2021278.html.

However, the significance of individual transmission channels, the timing of their impact, and even the direction of their effects can change. Our understanding of monetary policy transmission is, hence, inherently incomplete. In the economically varied euro area, the outcomes of shifting financial conditions also differ significantly among member states and regions.[27] A medium-term focus gives the ECB time to distinguish between types of economic shocks, such as demand and supply shocks, and devise the most appropriate response.

Second, and crucially, it also **provides flexibility to consider broader economic impact in line with the ECB's secondary mandate**. Raising central bank policy rates can be likened to deliberately inducing economy-wide shocks. Higher rates increase the cost of various economic activities, ultimately dampening aggregate demand. For businesses, increased interest rates raise the cost of capital, making investments more expensive. Furthermore, as monetary policy curbs economic activity, it directly impacts productivity-enhancing firm investments.[28] The longer the period it will take to repay those investments, the greater the damage from high rates will be; this is crucial, since it means that long-term investments in general and investments in clean energy in particular are especially vulnerable to high interest rates. Accordingly, as long as inflation expectations do not de-anchor, the ECB can allow temporary divergence from the target to balance investment, employment and growth with short-term price stability, without compromising medium-term price stability:

> when adjusting its monetary policy instruments, the Governing Council will – provided that two configurations of the instrument set are equally conducive and not prejudicial to price stability – choose the configuration that best supports the general economic policies of the Union related to growth, employment and social inclusion, and that protects financial stability and helps to mitigate the impact of climate change, with a view to contributing to the objectives of the Union.

In practice, the few periods that the ECB did raise rates were closely tied to preceding energy and food price shocks (see Figure 6). In those moments, fears of a return to 1970s inflation loomed large. As Jean-Claude Trichet explained the ECB's 2011 hike:

> The increase in inflation rates in early 2011 largely reflects higher commodity prices. Pressure stemming from the sharp increases in energy and food prices is also discernible in the earlier stages of the production process. It is of paramount importance that the rise in HICP inflation does not lead to second-round effects in price and wage-setting behaviour and thereby give rise to broad-based inflationary pressures over the medium term.[29]

27 Giancarlo Corsetti, Joao B Duarte, and Samuel Mann, 'One Money, Many Markets', Journal of the European Economic Association 20, no. 1 (1 February 2022): 513–48, https://doi.org/10.1093/jeea/jvab030.

28 James K. Galbraith, 'Time to Ditch the NAIRU', The Journal of Economic Perspectives 11, no. 1 (1997): 93–108; Oscar Jorda, Sanjay Singh, and Alan Taylor, 'The Long-Run Effects of Monetary Policy', NBER Working Paper (National Bureau of Economic Research, Inc, January 2020), https://econpapers.repec.org/paper/nbrnberwo/26666.htm; Luca Fornaro and Martin Wolf, 'The Scars of Supply Shocks: Implications for Monetary Policy', Journal of Monetary Economics, Inflation: Drivers and Dynamics 2022, 140 (1 November 2023): S18–36, https://doi.org/10.1016/j.jmoneco.2023.04.003.

29 Jean-Claude Trichet, Introductory statement to the press conference of 7 April 2011, Frankfurt: European Central Bank, 2011, https://www.ecb.europa.eu/press/pressconf/2011/html/is110407.en.html.

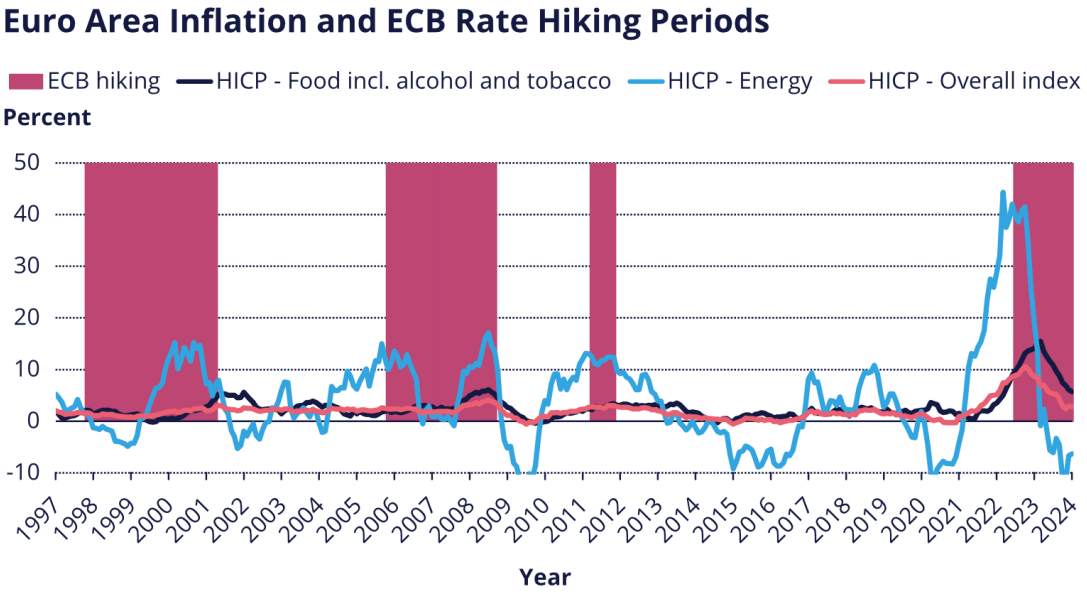


Figure 6: Euro Area Inflation and ECB Rate Hiking Periods; **Sources:** ECB Datawarehouse, Eurostat, based on Van 't Klooster & Weber (2024) 'The EU's Inflation Governance Gap: The Limits of Monetary Policy and the Case for a New Shockflation Toolbox'.

In pursuing price stability over the medium term, the ECB has consistently emphasized the importance of distinguishing supply and demand shocks. Demand shocks are events such as higher wages or increases in government spending where demand in the economy goes up, increasing economic activity and thereby raising pressure on prices. Facing demand shocks, the ECB seeks to bring down the additional demand that comes from credit creation and investment through raising interest rates, aiming to keep the economy at a pace consistent with its long-term potential. This in turn shapes the expectations of economic actors, wage bargaining between employers and unions, and government fiscal space. In macroeconomic theory, this dynamic is captured by the idea of forward-looking expectations.

In principle, demand shocks do not create trade-offs with economic output. If the monetary policy reaction is well calibrated, it merely keeps the economy on its long-term growth path, without causing collateral damage.

Supply shocks are different. Although predominantly concerned with demand shocks, the ECB's strategies to date all recognise that supply shocks create a trade-off between fighting inflation and other economic policy objectives. Events such as higher energy prices and natural disasters can raise prices while output slumps. In these circumstances, using monetary policy instruments to fight supply shocks is costly, further suppressing output. Hence, **the ECB seeks to avoid responding overly rapidly to supply shocks**.

As the ECB summarised the outcome of the 2003 strategy review:

> [M]onetary policy needs to be tailored to the nature of the shocks hitting the economy, and their size, source and potential for propagation. On this basis, the key ECB interest rates must evolve in such a way that the path of future inflation remains in line with the ECB's objective of price stability over the medium term.[30]

Similarly, the 2021 review explained:

> As different types of shock may move inflation and real economic activity in the same direction (as in the case of demand shocks) or create a temporary trade-off (as in the case of supply shocks), the medium-term orientation also provides the policy flexibility to assess the origin of shocks and look through temporary shocks that may dissipate of their own accord, thus avoiding unnecessary volatility in activity and employment.[31]

As we saw in Chapter 2, this interpretation of the monetary policy task reflects the specific historical experience of the Bundesbank. Raising rates helped bring down inflation in Germany during the first oil shock, but did so in a context where the amplification of the initial shock had clear demand-side origins.

3.2. The evolution of the ECB's analytical framework

The ECB's monetary policy strategies not only set out the high-level objectives and instruments, but also the analytic framework by which the Governing Council pursues those objectives in practice. Its role is underappreciated, but it is at the core of how day to day monetary policy setting functions, since it structures deliberation inside the Governing Council and the ECB working groups that decide on monetary policy.[32]

The ECB's current analytical framework focuses deliberation on drivers of inflation with an eye towards two questions: How will consumer prices evolve over the medium-term time horizon? And are those changes driven by the demand side or the supply side?

The 2021 analytical framework has two pillars. The economic pillar studies potential drivers of inflation, all of which relate to decision-making on the short or medium-term monetary policy stance:[33]

- Developments in the short term in economic growth, employment and inflation,
- The assessment of the drivers of shocks that hit the euro area economy,
- The Eurosystem and ECB staff projections of key macroeconomic variables over a medium-term horizon
- A broad-ranging evaluation of the risks to economic growth and price stability.

An important corollary of the focus on responding "flexibly" to shocks as drivers of inflation is that the 2021 strategy pays little attention to *anticipating* potential future drivers and understanding the structural causes of, or (potential) risks to, price stability. **While a monetary pillar in the 2003 strategy focused on the analysis of monetary aggregates for the purpose of identifying long-term risks to price stability, the 2021 strategy relaced this with a monetary-financial pillar focused on the transmission of monetary policy.**

30 ECB, 'The Outcome of the ECB's Evaluation of Its Monetary Policy Strategy', 88.

31 ECB, 'An Overview of the ECB's Monetary Policy Strategy'.

32 Alexander Jung, Francesco Paolo Mongelli, and Philippe Moutot, 'How Are the Eurosystem's Monetary Policy Decisions Prepared? A Roadmap', *JCMS: Journal of Common Market Studies* 48, no. 2 (2010): 319–45, https://doi.org/10.1111/j.1468-5965.2009.02054.x.

33 ECB, 'An Overview of the ECB's Monetary Policy Strategy', 13.

This pillar of the analytical framework covers the transmission of changes to policy rates via credit, bank lending, risk-taking and asset pricing channels, as well as financial vulnerabilities, imbalances and possible macroprudential responses.[34]

However, the framework currently omits consideration of potential real economy drivers of future shocks. Implicitly, these topics appear to be assumed to fall outside the topics relevant for setting monetary policy; since they are not something the central bank affects directly through its monetary policy stance, they are not seen as relevant for deliberation in the Governing Council.

This is inadequate. Even if the ECB cannot directly affect the relevant mechanisms – which is itself an open question – the effective pursuit of its mandate requires systematic awareness of their functioning.

This gap in the ECB's current analytical framework mirrors its strategy's medium-term focus. At its core, the various ECB strategies have all focused on maintaining "well anchored" inflation expectations, either by acting forcefully on demand shocks as soon as they are identified as such, or by seeing through supply shocks, until and unless they started to affect demand-side factors.

In the face of persistent and large shocks, this strategy presents a stark dilemma.[35] The central bank can do nothing and wait for the effects of a shock to dissipate, at the risk of still de-anchoring expectations. Or it can turn to economy-wide interest rate policy to bring down demand. This is effective in reining in inflation, but comes with collateral damage to investment, jobs and growth. In addition – and unlike in wage bargaining or fiscal policy, where strategic players internalise the expected central bank reaction – credibly threatening *ex post* rate hikes is ineffective at preventing an initial surge itself if the surge is not driven by strategic actors like governments or well-coordinated trade unions.

The optimal policy is neither to aggressively hike rates nor to do nothing; it is averting such situations in the first place. This, however, requires a conception of price stability that is not limited to a medium-term time horizon.

34 ECB, 13.
35 Lagarde, 'A Robust Strategy for a New Era'.

4. Lessons from the 2021-23 inflation experience[36]

The 2021-23 post-pandemic inflation experience differed significantly from the inflationary episodes of the 1970s. The latter were characterised by class conflic, and the initial shock was amplified into general inflation by higher wages and government spending. The recent inflation was characterised by sellers' inflation: the initial shock was amplified by tacitly coordinated price setting. This chapter draws five lessons from that experience. (1) The 2022-23 inflation revealed that economies can become so vulnerable to shocks that central banks may struggle to mitigate their effects at impact. (2) Conventional monetary policy, and in particular the anchoring of expectations, proved ineffective in addressing inflation driven by both large and heterogeneous supply shocks and by firm pricing strategies. (3) The ECB's strategy of waiting for supply shocks to dissipate proved inadequate. While there were good reasons to wait initially, this approach left the ECB with few good options as inflation surged. (4) Using monetary policy in this context may have important downsides from the perspective of long-term price stability by increasing the cost of crucial investments, particularly in clean energy. This risks making the economy more vulnerable to future inflationary shocks. Finally, (5) over-dependence on the dollar comes with important, but thus far underappreciated risks to price stability.

4.1 Supply constraints, cost shocks and firm pricing strategies in the 2022 inflationary experience

Just as the ECB finalised its 2021 strategy review, inflation started to pick up. In the aftermath of the COVID-19 pandemic, interlocking supply shocks amplified by new firm pricing strategies gave rise to new inflationary dynamics. The roots of the 2022 inflation can be traced back to a combination of "shockflation", inflation that originates in supply constraints and sectoral disruptions as well as "sellers inflation", inflation caused by firm pricing strategies.[37]

Supply constraints and cost shocks materialised as the economy began to recover from the pandemic.[38] During the COVID-19 pandemic and concurrent (semi-)lockdowns, consumers had changed their spending patterns, and these reversed as the pandemic ebbed.[39] Initially, the disruptions were concentrated in specific sectors such as shipping, intermediate goods like auto parts and semi-conductors, and essential commodities including chemicals, metals, wood, and fossil fuels. By 2021, 23% of euro area firms reported limitations in production capacity due to a lack of materials and equipment, a stark deviation from historical averages of 6% (Figure 7).[40] Natural gas prices, exacerba-

36 This chapter draws on Jens van 't Klooster and Isabella M. Weber, 'The EU's Inflation Governance Gap: The Limits of Monetary Policy and the Case for a New Shockflation Toolbox', Study requested by the ECON Committee (Brussels: European Parliament, 2024); for a similar diagnosis, see: David Barmes et al 'The case for adaptive inflation targeting: monetary policy in a hot and volatile world' (London: Centre for Economic Transition Expertise (CETEx), LSE, 2025).

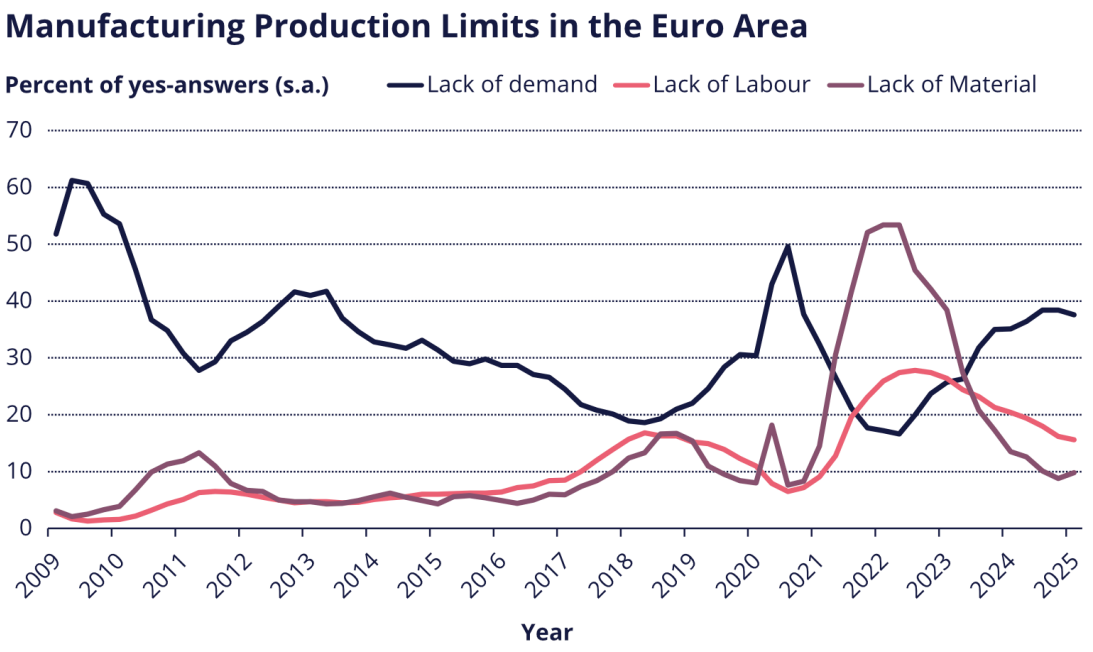
37 Terms introduced by Isabella M. Weber and Evan Wasner, 'Sellers' Inflation, Profits and Conflict: Why Can Large Firms Hike Prices in an Emergency?', *Review of Keynesian Economics* 11, no. 2 (14 April 2023): 183–213, https://doi.org/10.4337/roke.2023.02.05; van 't Klooster and Weber, 'The EU's Inflation Governance Gap: The Limits of Monetary Policy and the Case for a New Shockflation Toolbox'; Isabella M. Weber et al., 'Carbon Prices and Inflation in a World of Shocks: Systemically Significant Prices and Industrial Policy Targeting in Germany' (Gütersloh: Bertelsmann Stiftung, 2024). On this combination of factors, see also Viral V. Acharya et al., 'How Do Supply Shocks to Inflation Generalize? Evidence from the Pandemic Era in Europe', *NBER Working Papers*, NBER Working Papers, October 2023, https://ideas.repec.org//p/nbr/nberwo/31790.html Isabella M. Weber, et al., 'Implicit Coordination in Sellers' Inflation: How Cost Shocks Facilitate Price Hikes', 2024.

38 BIS, 'Annual Economic Report' (Basel: Bank for International Settlements, 2022); Mai Chi Dao et al., 'Understanding the International Rise and Fall of Inflation since 2020', *Journal of Monetary Economics*, 13 August 2024, 103658, https://doi.org/10.1016/j.jmoneco.2024.103658. Hansen, Toscani, and Zhou, *Euro Area Inflation After the Pandemic and Energy Shock*; Jakob Feveile Adolfsen et al., 'Gas Price Shocks and Euro Area Inflation', Working Paper Series (European Central Bank, February 2024), https://ideas.repec.org//p/ecb/ecbwps/20242905.html.

39 Daniel Rees and Phurichai Rungcharoenkitkul, 'Bottlenecks: Causes and Macroeconomic Implications', *BIS Bulletins*, BIS Bulletins, 11 November 2021; Hyun Song Shin, 'Bottlenecks, Labour Markets and Inflation in the Wake of the Pandemic' (G20 International Seminar "Recover together, recover stronger", Bali, 2021), https://www.bis.org/speeches/sp211209.pdf.

40 Maria Grazia Attinasi et al., 'The Semiconductor Shortage and Its Implication for Euro Area Trade, Production and Prices', 24 June 2021, https://www.ecb.europa.eu/pub/economic-bulletin/focus/2021/html/ecb.ebbox202104_06~780de2a8fb.en.html.

ted by geopolitical tensions such as the Russian invasion of Ukraine, reached record levels, while food prices soared in part due to climate change-induced agricultural challenges. The initial shocks resist easy summary: A drought in Taiwan, similarly connected to climate change, significantly impacted semiconductor production, which in turn impacted a range of manufactured goods.[41]



Limiting Factors, displays the percentage of surveyed firms in each sector that have reported a 'lack of material', 'lack of labour' or a 'lack of demand' in their production process.Firms can report multiple limiting factors. The answers are aggregated and a weighting coefficient is used for each firm representing an aspect of its size (for example, in terms of turnover, employment or production).

How to read the chart: In Q1 2025, 10% of manufacturing firms reported a material shortage (purple), while 38% faced a lack of demand (blue) and 16% experienced a shortage of labor (pink).

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Figure 7: Manufacturing Production Limits in the Euro Area; **Source:** European Commission (2025): Business and consumer surveys

The inflationary dynamics of 2022 were exacerbated by firms' strategic responses to these supply shocks.[42] Firms across various sectors adopted aggressive pricing strategies, raising unit prices to protect or even increase their profit margins.[43] This behaviour was not driven by traditional anti-competitive conduct such as formal cartels or collusive agreements, but was instead facilitated by the economy-wide nature of the cost shocks. The synchronous rise in costs across industries allowed firms to coordinate price increases implicitly, as each firm anticipated similar actions by its competitors. This implicit coordination mechanism enabled firms to raise prices without the fear of losing market share, thereby transforming sectoral cost shocks into a generalised inflationary environment.

41 Teng Kai-Yuan, 'How Taiwan's Expanding Semiconductor Industry Deals with Water Shortages', *CommonWealth Magazine*, 2022, https://english.cw.com.tw/article/article.action?id=3236.

42 Weber and Wasner, 'Sellers' Inflation, Profits and Conflict'; Acharya et al., 'How Do Supply Shocks to Inflation Generalize?'; Isabella M. Weber, et al., 'Implicit Coordination in Sellers' Inflation: How Cost Shocks Facilitate Price Hikes', 2024.

43 Fabrizio Colonna, Roberto Torrini, and Eliana Viviano, 'The Profit Share and Firm Markup: How to Interpret Them?', Bank of Italy Occasional Paper, 12 May 2023, https://papers.ssrn.com/abstract=4464310; ECB, 'How Have Unit Profits Contributed to the Recent Strengthening of Euro Area Domestic Price Pressures?'; Michalis Nikiforos, Simon Grothe, and Jan David Weber, 'Markups, Profit Shares, and Cost-Push-Profit-Led Inflation', *Industrial and Corporate Change* 33, no. 2 (1 April 2024): 342–62, https://doi.org/10.1093/icc/dtae003.

Once underway, shifting consumer perceptions also mattered. While supply shocks were the primary drivers, robust consumer demand enabled the pass-through of input price hikes. Firms, confident in the resilience of demand, were emboldened to raise prices, further fuelling the inflationary spiral. As firms raised prices in response to initial cost shocks, the generalised inflationary environment provided legitimacy for further price increases. Consumers, facing widespread price hikes, became more accepting of these increases, reducing the elasticity of demand and reinforcing firms' ability to raise prices. This self-reinforcing cycle contributed to the perpetuation of inflation, as the initial cost shocks were compounded by the cumulative effects of firms' pricing strategies.

In this regard, the 2022 inflation should be understood as a "sellers' inflation" as defined by Abba Lerner: price increases originated in firm pricing strategies, rather than starting with worker demands for higher wages.[44]

Within sellers' inflation, it is crucial to distinguish between inflation caused by markup protection and inflation caused by markup increase strategies.[45] Markup protection involves firms raising prices to maintain their profit margins in the face of rising costs, while markup increase entails raising prices beyond what is necessary to offset cost increases, thereby expanding profit margins. In the latter case, firms not only mitigate the impact of cost shocks but also capitalize on the inflationary environment to enhance profitability. In media narratives, the emphasis has been on the latter, whereas the most prominent macroeconomic effects come from the former.

The ECB's strategy only made new drivers a concern for the central bank once inflation was already well under way

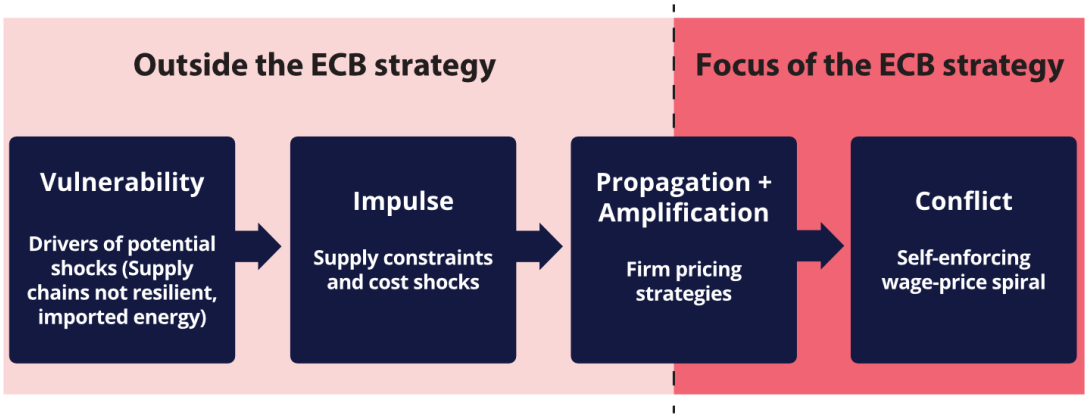

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Figure 8: The ECB's strategy only made new drivers a concern for the central bank once inflation was already well under way;
Source: Based on van 't Klooster & Weber (2024)

44 Abba Lerner, 'Inflationary Depression and the Regulation of Administered Prices', in *The Relationship of Prices to Economic Stability and Growth: Compendium of Papers Submitted by Panelists Appearing before the Joint Economic Committee.*, by Joint Economic Committee, (Washington, D.C., 1958), 257–68; cf. Weber and Wasner, 'Sellers' Inflation, Profits and Conflict'.

45 Colonna, Torrini, and Viviano, 'The Profit Share and Firm Markup'; Nikiforos, Grothe, and Weber, 'Markups, Profit Shares, and Cost-Push-Profit-Led Inflation'; Weber, et al., 'Implicit Coordination in Sellers' Inflation: How Cost Shocks Facilitate Price Hikes'.

The ECB's monetary policy measures were guided by the 2021 strategy review. However, its focus on demand management left unaddressed the underlying supply-side issues and the role of firm pricing strategies in perpetuating inflation. From late 2021 onwards, as inflationary pressures mounted, it became increasingly clear that the price pressures were not just driven by typical demand-side dynamics. In line with the 2021 strategy, most policymakers initially took the view that the inflationary effect of supply shocks could be transient and did not require a policy response.[46]

As inflation surged, however, central banks, including the ECB, responded with unprecedented monetary policy measures. Starting in July 2022, the ECB raised interest rates to their highest levels in history, aiming to reduce economy-wide demand and stabilise prices. The rapid pace of these rate hikes reflected the urgency of addressing inflationary pressures, which had become too large to ignore (see Figure 6 above).

4.2 Five lessons from the 2022 experience

The experience of the 2022 inflation contains five key lessons for policymakers that the ECB should draw on in reviewing its strategy.

First, it became clear that **latent risks to price stability can develop over time, making the economy so vulnerable to shocks that the central bank is powerless to stop those shocks at impact**. While the circumstances of the pandemic were particularly harsh, the extent to which supply chains had become vulnerable to shocks had grown considerably in earlier years. For example, supply constraints had built up over the years prior to 2022 as firms increasingly relied on longer value chains and just-in-time production. These developments reflect a specific market failure, where upstream sectors in which firms underinvest in capacity see their market power increase.[47] They can charge high prices if a supply constraint occurs, but see few benefits from overinvestment in capacity, which brings down sectoral prices. The causes of Europe's vulnerability to energy price shocks are similarly structural and built up over time. The choice of member states to rely excessively on fossil fuels, in particular those imported from Russia, goes back decades. It had become clear with the Russian invasion of Crimea, at the latest that these came with severe geopolitical risks.

These long-term risks to price stability fall outside the ECB's current conception of its price stability objective. Comprehensively addressing these drivers of inflation requires a complex combination of economic policies, including regulatory, industrial and competition policy, which fall outside the ECB's toolbox. However, as the EU's main policymaker for price stability, the ECB cannot simply ignore these factors. **The ECB's legal mandate is to maintain price stability, not just to prevent inflation that stems from medium-term demand-side drivers of inflation.**

The second lesson to draw from the experience of 2022 is that **conventional monetary policy is not always an adequate tool to respond to an inflationary environment, even if it has an important demand component**. Where inflation has its origins in wage developments or government spending, the central bank can bring it down to a level compatible with medium-term price stability. Consumers care directly about their purchasing power, whereas governments care about macroeconomic outcomes. Credible commitment by the central bank to offset inflationary demand increases can impact these economic actors' inflationary choices in various ways. This transmission mechanism not only has a basis in macroeconomic theory but is also well-established in the political economy and historical literature.[48]

46 Fabio Panetta, 'Patient Monetary Policy amid a Rocky Recovery' (Sciences Po Paris, 24 November 2021), https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp211124~a0bb243dfe.en.html.

47 Agostino Capponi, Chuan Du, and Joseph E. Stiglitz, 'Are Supply Networks Efficiently Resilient?', Finance and Economics Discussion Series 2024-031 (Washington: Board of Governors of the Federal Reserve System, 2024), https://papers.ssrn.com/abstract=4754766.

48 Hall and Franzese, 'Mixed Signals'; Hancké, *Unions, Central Banks, and EMU*.

In contrast to wage setting and government fiscal policy, there may not be a simple connection between inflation expectations and firm pricing strategies. Academic disagreement focuses on whether it is nonexistent or just not well understood.[49] On balance, a monetary policy announcement, or even more indeterminate expectations about the economy-wide price level, may be at best a secondary concern for an individual firm's decision as to whether to change its markup in the face of a cost shock. In a competitive environment, its main concern should be its ability to absorb the input cost increase and whether it can raise prices without losing market share. The few experimental studies on this topic show that high inflation expectations may lead firms to raise prices, but can also have the opposite effect.[50]

For a recent empirical study, I read hundreds of earnings call transcripts in which US executives discuss cost shocks. The Federal Reserve is almost never mentioned. Where executives do see monetary policy as impacting their pricing, the focus is backward-looking. As one executive explained in 2021:

> Thank you, Federal Reserve and the U.S. Congress, for fiscal and monetary stimulus. We could debate transitory or otherwise, but those things are translating into, broadly, a more highly inflationary environment. And that applies to us, too, and that obviously is helping from a pricing power point of view.[51]

Using interest rate hikes to response to sellers' inflation is not only ineffective, but also exacerbates its impact on households. Since monetary policy shapes the financing conditions available for households and firms, it can also indirectly shape firm pricing decisions. However, to the extent that there is such a transmission mechanism, it works in part by further reducing household purchasing power. This is economically costly and exacerbates inequality.[52] From the perspective of households, monetary policy counteracts what is in principle a desirable catching-up of wages with a higher price level. Due to the important role that mortgages themselves have in determining the purchasing power of consumers in many countries, restrictive monetary policy also impacts households' costs of living.[53]

A third lesson to draw from the post-pandemic experience is **that some cost shocks are such that the central bank cannot simply wait for them to happen and see them through**. Despite the novelty of the post-pandemic inflationary dynamics, the ECB stuck closely to its existing monetary policy strategy. While central bank research departments were relatively quick to identify both costs shocks and firm pricing strategies as the key drivers, this did not translate into a rethinking of inflation governance. The Governing Council had good reason to initially wait for the inflationary effect of supply shocks to pass. As a central bank, the ECB lacked the tools to address supply chain disruptions or reduce the price of energy. However, the 2021 strategy created a dilemma: either act with an inappropriate instrument or do nothing (or not enough) and risk losing credibility.

Letting major inflationary waves ripple through the economy had a dramatic impact on households' cost of living, with real wages declining at 5.1% year-on year at the peak of inflation in the third quarter of 2022.[54] While wages did go up,

49 Not yet well understood: Olivier Coibion et al., 'Inflation Expectations as a Policy Tool?', *Journal of International Economics*, NBER International Seminar on Macroeconomics 2019, 124 (1 May 2020): 103297, https://doi.org/10.1016/j.jinteco.2020.103297. Non-existent: Rudd, 'Why Do We Think That Inflation Expectations Matter for Inflation?'

50 Olivier Coibion, Yuriy Gorodnichenko, and Saten Kumar, 'How Do Firms Form Their Expectations? New Survey Evidence', *The American Economic Review* 108, no. 9 (2018): 2671–2713; Olivier Coibion, Yuriy Gorodnichenko, and Tiziano Ropele, 'Inflation Expectations and Firm Decisions: New Causal Evidence', *The Quarterly Journal of Economics* 135, no. 1 (1 February 2020): 165–219, https://doi.org/10.1093/qje/qjz029.

51 Hilton Worldwide Holdings Inc. earnings call Q3 2021 (Oct 27, 2021).

52 Luiz Awazu Pereira da Silva et al., *Inequality Hysteresis* (Basel: Bank for International Settlements, 2022), https://www.bis.org/publ/othp50.htm.

53 Marijn A. Bolhuis et al., 'The Cost of Money Is Part of the Cost of Living: New Evidence on the Consumer Sentiment Anomaly', Working Paper, Working Paper Series (National Bureau of Economic Research, February 2024), https://doi.org/10.3386/w32163.

54 EC, 'Labour Market and Wage Developments in Europe - Annual Review 2023' (Brussels: European Commission, 2024), https://data.europa.eu/doi/10.2767/1277.

this only compensated for around 20% of the cost shock (see also Figure 3 above).[55] Across the EU, the impact on cost of living was felt most strongly by low and below-median income households, with more households living in absolute poverty; some member states saw increases by up to 19%.[56] The impact of inflation also set the stage for global electoral turmoil, as angry electorates voted out incumbent governments.[57]

This brings us to the penultimate lesson from the 2022-23 experience: **The use of interest rates to bring down economy-wide demand does not necessarily promote long-term price stability and can even undermine it.** By increasing the cost of long-term investments, the ECB's monetary policy approach of 2022-23 may have made the EU economy more vulnerable to future inflationary shocks. For firms, higher interest rates raise the cost of capital, thereby making investments more expensive. Moreover, as monetary policy drives down economic activity, it strikes directly at productivity-enhancing firm investments.[58] Additionally, the more long-term those investments, the greater the damage high rates will do. While these demand- and investment effects are in part exactly the way in which monetary policy achieves its price stability objectives, there is no reason to be indifferent to their long-term effects on price stability.

A particularly nefarious way in which high rates undermine long-term price stability is likely by undermining clean energy investments.[59] From the perspective of a central bank with a price stability mandate, investments in decarbonising energy systems have various attractive properties.[60] They make the economy less dependent on imports. Macroeconomically, their prices are also less volatile, since they are less affected by trade and geopolitical developments: once installed, their average annual cost base is stable. Investments in energy efficiency measures have similar benefits in making the economy less vulnerable to energy-related shocks.

Using monetary policy to pursue price stability may harm precisely those investments most needed to protect the European economy against future shocks. Reflecting its 2021 strategy, the ECB designed its inflation fighting measures to focus on demand-side origins of inflationary pressures, in particular wage development. As Isabel Schnabel explained in January 2023:

> Tighter financing conditions will slow growth in aggregate demand, which is needed to reduce the upward pressure on prices that has resulted from the long-lasting damage to the euro area's production capacity inflicted by the energy crisis.[61]

55 Adolfsen et al., 'Gas Price Shocks and Euro Area Inflation'.

56 Balint Menyhert, 'The Effect of Rising Energy and Consumer Prices on Household Finances, Poverty and Social Exclusion in the EU', Publications Office of the European Union (Luxembourg, 18 October 2022), https://doi.org/10.2760/418422.

57 Carin van der Cruijsen, Jakob de Haan, and Maarten van Rooij, 'The Impact of High Inflation on Trust in National Politics and Central Banks', DNB Working Paper (Amsterdam, 3 May 2023), https://papers.ssrn.com/abstract=4437041.

58 Galbraith, 'Time to Ditch the NAIRU'; Jorda, Singh, and Taylor, 'The Long-Run Effects of Monetary Policy'; Fornaro and Wolf, 'The Scars of Supply Shocks'.

59 Florian Egli, Bjarne Steffen, and Tobias S. Schmidt, 'A Dynamic Analysis of Financing Conditions for Renewable Energy Technologies', *Nature Energy* 3, no. 12 (December 2018): 1084–92, https://doi.org/10.1038/s41560-018-0277-y; Tobias S. Schmidt et al., 'Adverse Effects of Rising Interest Rates on Sustainable Energy Transitions', *Nature Sustainability* 2, no. 9 (September 2019): 879–85, https://doi.org/10.1038/s41893-019-0375-2; Seyedeh Fatemeh Razmi, Marjan Heirani Moghadam, and Mehdi Behname, 'Time-Varying Effects of Monetary Policy on Iranian Renewable Energy Generation', *Renewable Energy* 177 (1 November 2021): 1161–69, https://doi.org/10.1016/j.renene.2021.06.020; Jens van 't Klooster, 'The European Central Bank's Strategy, Environmental Policy and the New Inflation: A Case for Interest Rate Differentiation' (London: Grantham Research Institute on Climate Change and the Environment, 2022); Shabir Mohsin Hashmi, Qasim Raza Syed, and Roula Inglesi-Lotz, 'Monetary and Energy Policy Interlinkages: The Case of Renewable Energy in the US', *Renewable Energy* 201 (1 December 2022): 141–47, https://doi.org/10.1016/j.renene.2022.10.082; Dan Zhang, Yunpeng Wang, and Xinyu Peng, 'Carbon Emissions and Clean Energy Investment: Global Evidence', *Emerging Markets Finance and Trade* 59, no. 2 (26 January 2023): 312–23, https://doi.org/10.1080/1540496X.2022.2099270; Taner Akan, 'The Impact of Monetary Policy on Climate Change through the Mediation of Sectoral Renewable Energy Consumption', Energy Policy 192 (1 September 2024): 114244, https://doi.org/10.1016/j.enpol.2024.114244; Shiu-Sheng Chen and Tzu-Yu Lin, 'Monetary Policy and Renewable Energy Production', *Energy Economics* 132 (1 April 2024): 107495, https://doi.org/10.1016/j.eneco.2024.107495.

60 Rizwan Ahmed et al., 'Inflation, Oil Prices, and Economic Activity in Recent Crisis: Evidence from the UK', *Energy Economics* 126 (1 October 2023): 106918, https://doi.org/10.1016/j.eneco.2023.106918.

61 Isabel Schnabel, 'Monetary Policy Tightening and the Green Transition' (International Symposium on Central Bank Independence, Sveriges Riksbank, Stockholm Stockholm, 10 January 2023, 2023), https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230110~21c89bef1b.en.html. More recently, Frank Elderson, 'Sustainable Finance: From "Eureka!" To Action' (Sustainable Finance Lab Symposium on Finance in Transition, Utrecht, 2024), https://www.ecb.europa.eu/press/key/date/2024/html/ecb.sp241004~e2c8a5aae1.en.html.

Since the 2021 monetary policy strategy review, the ECB has taken the climate transition into account in, amongst other things, the design of its corporate bond purchases, the rules for eligible collateral and the internal credit rating facilities of the ECB. However, due to the ECB strategy's focus on bringing down demand via economy-wide measures, there was no dedicated role for consideration of the instruments' effect on sector-specific investments, except where it mattered for the demand-side factors.

This has translated into an approach to raising monetary policy rates from July 2022 onwards which has raised funding costs indiscriminately. Lending rates became less targeted as no new targeted lending programmes were announced after the TLTRO-III programme (March 2019) and the pandemic emergency longerterm refinancing operations (PELTROs) programmes of 2020 and 2021. As the ECB set out to raise interest rates, proposed changes to the corporate bond purchases also became less important since the corporate sector purchase programme (CSPP) was discontinued, with only the reinvestment currently subject to "tilting" away from carbon-intensive issuers (not the portfolio as a whole).[62] Today "greening" measures have been based on a risk management justification, where changes in the implementation are made to protect the ECB's balance sheet against financial risk. However, supportive measures lack a clear grounding in the monetary policy strategy.

These choices to deprioritise clean energy in the implementation of monetary policy may fail to adequately secure the long-term preconditions of price stability. Clean energy investments have a cost structure where a large part of the cost of energy is paid upfront: installing windmills and photovoltaics and improving the electricity grid is expensive, but afterwards, energy is cheap. This contrasts with fossil fuel investments which tend to rely on tested and known technologies geared towards burning fuels and which investors have invested in for decades. A much larger share of energy generation costs comes from the fuels themselves, which are paid over the course of the project. As long as fossil fuels are the marginal source of power, this gives fossil fuel investments an intrinsic hedge against commodity price fluctuations: If oil, coal and gas become more expensive, fossil fuel energy producers are also able to sell their energy at higher prices. Since fighting inflation by raising interest rates may directly contradict decarbonisation, it risks undermining long-term price stability.

A final lesson to draw from the 2022 inflation, strengthened by more recent developments in the US, is that **the EU's dependence on the US dollar comes with important risks to price stability.**[63] Today, 50% of EU imports, including an estimated 85% of the EU's energy imports, are denominated in dollars, while only 41% are in euro.[64] This means that changes in the value of the dollar are an important driver of EU domestic prices. From the start of Q42021 to Q2022, the euro lost almost 20% of its value against the dollar, exacerbating the inflationary shock (overall energy prices rose 41.5 %).

Going forward, there are also important risks for financial stability and the transmission of monetary policy. Today, US providers hold key roles in the EU's domestic payment systems. An estimated 17% of euro area banks' funding is denominated in dollars, making the EU's banking system vulnerable to US decision-making.[65] Officials of the current administration

62 Larissa de Barros Fritz and Marta Teixeira, 'Limited Impact from the ECB Greening Its Collateral Framework', ABN AMRO Bank, 2024, https://www.abnamro.com/research/en/our-research/esg-strategist-limited-impact-expected-from-the-ecb-greening-its-collateral.

63 Jens van 't Klooster, 'Monetary Sovereignty: The Euro and Strategic Internationalization', in *Proceedings of the ECB Legal Conference* (European Central Bank, 2024), 148–64; Jens van 't Klooster and Steffen Murau, 'Rethinking Currency Internationalisation. Offshore Money Creation and the EU's Monetary Governance' (Rochester, NY: OBFA-TRANSFORM Working Paper No. 4-EN, 31 January 2025), https://doi.org/10.2139/ssrn.5122161.

64 Eurostat, *Extra-EU trade by invoicing currency* (2023 data). EC, 'The Euro in the Field of Energy' (Brussels: European Commission, 2023), https://energy.ec.europa.eu/topics/markets-and-consumers/euro-field-energy_en.

65 Benjamin Klaus and Luca Mongelli, 'Euro Area Banks as Intermediators of US Dollar Liquidity via Repo and FX Swap Markets', Financial Stability Review, November 2024 (Frankfurt: European Central Bank, n.d.).

have repeatedly invoked various avenues for weaponising this dependency, or even exacerbating it by developing USD stablecoins for use by EU citizens.[66] For now, the Trump executive orders pertaining to independent agencies exempt the Federal Reserve's monetary policymaking, but this may change. It is also unclear whether this exemption covers the provision of dollar swap lines.[67]

A stronger international role for the euro, meanwhile, would have clear benefits from the perspective of price stability. It would strengthen the ECB's ability to diverge from monetary policy rates of the Fed, reduce the impact of dollar spill-overs on domestic financing conditions, and strengthen the transmission of monetary policy via cross-border spillovers.[68] A more euro-based financial system would also be more friendly to clean energy investments, thereby supporting the global energy transition.[69] In sum, although the ECB has rightly seen itself as first and foremost a domestic policymakers, the international monetary precondition of (domestic) price stability have become too important to neglect.

66 Eric Monnet, 'Cryptomercantilism: Donald Trump's monetary doctrine', *SUERF Policy Brief* (1139), April 2025, https://www.suerf.org/publications/suerf-policy-notes-and-briefs/cryptomercantilism-donald-trumps-monetary-doctrine/.

67 White House, 'Ensuring Accountability for All Agencies' (Washington, D.C., 19 February 2025), https://www.whitehouse.gov/presidential-actions/2025/02/ensuring-accountability-for-all-agencies/.

68 Johannes Gräb and Arnaud Mehl, 'The Benefits and Costs of the International Role of the Euro at 20', in *The International Role of the Euro* (Frankfurt: European Central Bank, 2019), https://www.ecb.europa.eu/pub/pdf/ire/ecb.ire201906~f0da2b823e.en.pdf.

69 Monica DiLeo, Glenn Rudebusch, and Jens van 't Klooster, 'Why the Fed and ECB parted ways on climate change: The politics of divergence in the global central banking community', (Washington, D.C.: Brookings, 9 August 2023), https://www.brookings.edu/articles/why-the-fed-and-ecb-parted-ways-on-climate-change-the-politics-of-divergence-in-the-global-central-banking-community/.

5. Moving beyond myopia in the ECB's new strategy

This chapter outlines three policy recommendations to improve the ECB's strategy in light of recent inflationary challenges. First, it suggests broadening the time horizon to include long-term preconditions of price stability within the primary objective. Second, it proposes integrating the analysis of long-term risks into a new geoeconomic price stability pillar within the analytical framework. Lastly, rather than treating monetary policy as the sole instrument for price stability, the ECB should position its monetary policy strategy within a broader EU inflation governance framework.

5.1 Implications for the objectives and analytical framework

In the face of new supply-shock-driven inflation, the ECB's current strategy leaves it with two options: do nothing and hope that shocks dissipate, or take drastic, economy-wide measures that may undermine long-term price stability.[70] The 2025 revision of the ECB's monetary policy strategy should address this incoherence head-on. Moving beyond the strategy's focus on responding to shocks, the ECB should extend the time horizon of its monetary policy strategy and broaden its account of what risks to price stability should be considered in its analytical framework.

Despite the unique circumstances of the pandemic, as confirmed by Lagarde in a recent speech, inflation may strike again in the coming years: aggressive firm pricing strategies, demographic pressures from an ageing workforce, extended supply chains, old and new energy dependencies, trade conflicts and geopolitical shocks all risk setting off new inflationary waves.[71]

As the ECB already acknowledged in its 2021 strategy review, some of the most severe future risks to price stability stem from the unfolding climate and environmental crisis.[72] Climate change can directly cause supply shocks through extreme weather events and natural disasters, which typically result in lower output and a higher price level.[73] As the example of droughts and their impact on Taiwanese semiconductors illustrates, these effects are by no means limited to obvious sectors such as agriculture, tourism and coastal real estate.

Rapid, disorderly transition policies, likely to result from the increasingly severe impacts of climate change, will have their own inflationary effect. Carbon taxation may result in higher costs for carbon-intensive products, while rapidly expanding clean energy capacity can go together with bottlenecks for critical minerals and other inputs.[74] Without adequate and long-term oriented investments in transition-critical materials such as copper, lithium and nickel, demand can rapidly outpace supply.[75]

70 Paul Beaudry, Thomas J. Carter, and Amartya Lahiri, 'The Central Bank's Dilemma: Look Through Supply Shocks or Control Inflation Expectations?', Working Paper, Working Paper Series (National Bureau of Economic Research, September 2023), https://doi.org/10.3386/w31741.

71 Charles Goodhart and Manoj Pradhan, *The Great Demographic Reversal: Ageing Societies, Waning Inequality, and an Inflation Revival*, 1st ed. 2020 edition (Cham, Switzerland: Palgrave Macmillan, 2020); Capponi, Du, and Stiglitz, 'Are Supply Networks Efficiently Resilient?'; James Jackson, 'The Climate-Changing Context of Inflation: Fossilflation, Climateflation, and the Environmental Politics of Green Central Banks', *Global Environmental Politics*, 26 September 2024, 1–9, https://doi.org/10.1162/glep_a_00762; Lagarde, 'A Robust Strategy for a New Era'.

72 Sandra Batten, 'Climate Change and the Macro-Economy: A Critical Review', Bank of England Working Papers, *Bank of England Working Papers* (Bank of England, 12 January 2018); Francesco Drudi et al., 'Climate Change and Monetary Policy in the Euro Area', *Occasional Paper Series*, Occasional Paper Series (Frankfurt: European Central Bank, September 2021), https://ideas.repec.org/p/ecb/ecbops/2021271.html.

73 Alessandro Cantelmo et al., 'Monetary Policy Under Natural Disaster Shocks', *International Economic Review* n/a, no. n/a, accessed 11 March 2024, https://doi.org/10.1111/iere.12694.

74 Isabel Schnabel, 'A New Age of Energy Inflation: Climateflation, Fossilflation and Greenflation' (ECB and its Watchers XXII Conference, Frankfurt, 2022); Weber et al., 'Carbon Prices and Inflation in a World of Shocks: Systemically Significant Prices and Industrial Policy Targeting in Germany'.

75 Hugh Miller et al., 'The Stumbling Block in "the Race of Our Lives": Transition-Critical Materials, Financial Risks and the NGFS Climate Scenarios', Grantham Research Institute on Climate Change and the Environment Working Paper (London: London School of Economics and Political Science, 1 February 2023), https://papers.ssrn.com/abstract=4356692.

Accordingly, the post-pandemic inflation episode should not be treated as an exceptional, one-time occurrence, but as a call to action. The 2025 strategy should take the insights gained during the post-pandemic inflation episode into account in the interpretation of the ECB's price stability objective and the design of its analytical framework.

The first major implication from the preceding analysis is that the ECB should clarify the role of the longer-term preconditions of low and stable inflation in its interpretation of the price stability objective. Prior to 2022, the ECB had done very well in maintaining stable prices. But it had done so in a way that failed to protect the economy against the huge inflationary shocks of 2022. Indeed, it became clear that it is possible for monetary policy measures to bring the economy closer to a self-imposed 2% target, but also make the economy more vulnerable to future inflationary or deflationary shocks. A too-narrow focus on the medium term can undermine long-term price stability.

A definition of inflation that is shortsighted in this way cannot be the right way for the ECB to pursue its treaty obligations. Instead, the central bank should aim to identify the relevant risks and, where appropriate, design its policies in ways that reduce such inconsistencies. Moreover, where trade-offs between short-term and long-term price stability cannot be avoided, the ECB should address these head-on. Doing this well during Governing Council deliberations presupposes a definition of the primary objective that covers price stability across various time horizons.

In reflecting on the definition of price stability, it is crucial to distinguish between the primary objective as set out in Article 127(1) and the choice of one or more price measures for assessing the achievement of the objective. The latter, as set out in the ECB's strategies to date, has been the Harmonised Consumer Price Index. However, a simple average may not be enough to specify the ECB's task: Highly volatile price fluctuations around the 2% mark keep the HCPI stable over the medium term, but are hard to reconcile with the goal of long-term price stability. A new definition of the price stability objective should acknowledge this complexity, spanning medium- and long-term price stability measures.

A second implication of the lessons learned from 2022 is that the ECB should pay more attention to the economic preconditions for price stability. The economic and monetary-financial pillars that informed the 2021 strategy have a short- to medium-term orientation. Their focus is on identifying shocks that affect medium-term price developments and potential changes in the financial market transmission of monetary policy. This means that there is no scope for systematically screening long-term threats to price stability. To ensure adequate study of these topics in Governing Council deliberations, the ECB should expand its analytical framework with a third pillar focused on long-term price stability. This pillar should cover:

- Risks to systemically important sectors such as food and energy, supply chain resilience (in particular for crucial inputs into manufacturing such as semi-conductors and critical materials), firm pricing strategies and competition policy
- The evolution of relevant public and private investment with an eye towards long-term price stability and the resilience of the euro area economy
- An assessment of potentially undesirable negative transmission of monetary policy measures on price stability enhancing investments
- The scope for promoting price stability enhancing investments without prejudice to the medium-term price stability objective
- The impact of monetary policy on the international role of the euro, and vice versa, and the possibilities for further enhancing the currency's global standing through the design of monetary policy and emergency credit facilities (including swap lines).

5.2 Implications for toolbox and inflation governance

The EU's current governance framework assigns a key role to the ECB's monetary policy in preventing inflation. For a wide range of shocks this neither addresses their root causes nor does it effectively deal with the negative economic and social effects of inflation. Instead it results in a dilemma: The ECB can either wait and hope for the effects of the shocks to dissipate, or turn to economy-wide interest rate policy to bring down demand.

The optimal policy is neither to react nor to do nothing; it is averting such situations in the first place. However, the central bank cannot do this alone. Effectively dealing with inflation is thus impossible without supporting measures froms other EU-level policymakers. **It is therefore desirable that the central bank develops its conception of long-term price stability in coordination with EU- and member state-level policymakers who can contribute to price stability.**

The ECB should position its monetary policy strategy within a broader EU inflation governance framework

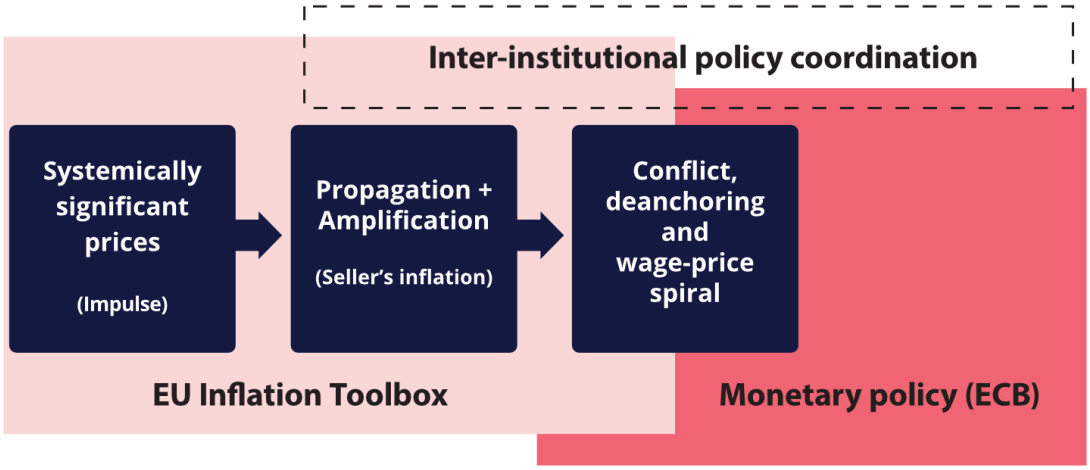

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Figure 9: The ECB should position its monetary policy strategy within a broader EU inflation governance framework; **Source:** Based on van 't Klooster & Weber (2024).

The limitations of monetary policy in the face of new shocks call for coordinated action. As Isabel Schnabel explained in response to the Russian invasion of Ukraine, the optimal nature and extent of coordination depends on the type of threats to price stability faced by the ECB:

> While the pandemic required fiscal and monetary policy to jointly counter the massive shock, Russia's terrible act of aggression requires a different division of labour because it pulls demand and prices in opposite directions at a time when medium-term price stability is at risk. An appropriate monetary-fiscal policy mix will be decisive for fostering social cohesion, protecting people's purchasing power and sustaining the recovery."[76]

76 Isabel Schnabel, 'Managing Policy Trade-Offs', 2 April 2022, https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200211_1~b439a2f4a0.en.html.

Accordingly, the most pressing challenges for the ECB going forward are to position its monetary policy within an EU-wide inflation governance framework that covers structural vulnerabilities and an adequate monitoring of prices as well as measures to deal with the impact of shocks and to stop their proliferation and amplification through firm price setting.[77] Monetary policy should complement other relevant economic policies, in particular regulatory, industrial and competition policy, but cannot replace them.

For the purposes of the monetary policy strategy review, **three steps should be distinguished**. **First**, where it concerns the medium-term orientation, the ECB should explicitly set out how it will go about determining which contribution it can make to maintaining price stability versus where this can only be done by other economic policymakers. Cost shocks and supply constraints require targeted industrial and trade policies. Anti-competitive behaviour in firm price setting should be a shared concern for the central bank and the competition authority, but is for the latter to address. In many cases, the ECB may only have an advisory role on how to maintain price stability.

A second step is to devise a formal coordination mechanism for a concerted response to inflation.[78] Austria could serve as a model here. Its Nationalbank coordinated action with the competition authority to investigate grocery prices in its highly concentrated food sector.[79] The ECB should set out where coordination is required as well as how to structure the required coordination and divide tasks.

A third step would go beyond concerted action to align the design of monetary policy operations with economic policies geared towards long-term price stability. This last step is required where an economy-wide, single rate monetary policy would damage crucial investments required for long-term price stability. In this context, only well-targeted monetary policy operations can reconcile the medium-term objective with the long-term preconditions of price stability.

All three steps have **clear precedent**.[80] Since 2008, the ECB has increasingly coordinated its policies with the political institutions of the EU. For example, the 2012 Outright Monetary Transactions (OMT) programme was designed to be conditional upon adherence to macroeconomic adjustment programmes designed by the Member States under the European Stability Mechanism (ESM) or European Financial Stability Facility (EFSF).[81] The 2022 Transmission Protection Instrument (TPI) followed this logic, with its use conditional on meeting specific EU-level criteria.[82] The ECB also increasingly acknowledges unwanted side effects of monetary policy and has sought to minimise them by carefully designing its tools and establishing safeguards to avoid interfering with fiscal policy. The ECB's 2021 strategy formalises this approach, incorporating side-effect monitoring into the financial market analysis framework and conducting proportionality analyses. As already noted, the ECB also aligns the design of its monetary policy operations with the EU's green agenda. In doing so, it has engaged in a two-way interaction with other EU policymakers. It has both (i) contributed to specific economic policies of

77 van 't Klooster and Weber, 'The EU's Inflation Governance Gap: The Limits of Monetary Policy and the Case for a New Shockflation Toolbox'.

78 As set out in Monnet and van 't Klooster, 'Using Green Credit Policy to Bring down Inflation: What Central Bankers Can Learn from History'. See also Chiara Colesanti Senni, Maria Sole Pagliari, and Jens Van 't Klooster, 'The CO2 Content of the TLTRO III Scheme and Its Greening', Working Paper Series (Amsterdam: De Nederlandsche Bank, 2023), https://www.dnb.nl/en/publications/research-publications/working-paper-2023/792-the-co2-content-of-the-tltro-iii-scheme-and-its-greening/.

79 BWB, 'Bundeswettbewerbsbehörde präsentiert den Abschlussbericht der Branchenuntersuchung Lebensmittel', Bundeswettbewerbsbehörde, 3 November 2023, https://www.bwb.gv.at/news/detail/bundeswettbewerbsbehoerde-praesentiert-den-abschlussbericht-der-branchenuntersuchung-lebensmittel.

80 van 't Klooster and de Boer, 'What to Do with the ECB's Secondary Mandate'; Nik de Boer, Seraina Grünewald, and Jens Van 't Klooster, 'The Law and Politics of Independent Policy Coordination: Fiscal and Sustainability Considerations in the European Central Bank's Monetary Policy', EBI Working Paper (Frankfurt: European Banking Institute, 2024).

81 ECB, 'Technical features of Outright Monetary Transactions', 6 September 2012.

82 ECB, 'The Transmission Protection Instrument', Press Release, European Central Bank, 21 July 2022, https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220721~973e6e7273.en.html.

other EU-level policymakers through its monetary policy instruments as well as (ii) based the design of its decision on policies of the EU's political bodies – primarily the Commission, Council, European Council, and/or the European Parliament – and the member states.

Coordination is also clearly permitted by the ECB's mandate, particulary where it serves to achieve the objective of price stability.[83] The European Court has consistently interpreted the ECB's independence as "functional", serving to protect its ability to maintain price stability. In the 2004 OLAF case, it also clearly rejected the claim that the ECB's independence isolates it completely from other EU institutions and bodies.[84] The fact that the treaties contain numerous provisions that formalise the exchange of views and mutual consultation among various economic policymakers reinforces this interpretation.[85]

The primary challenge in coordinated monetary policy geared towards long-term price stability concerns its **governance**. Two potential approaches can ensure legitimacy in this context. The first is an approach of ***independent* policy coordination**, where the design of monetary policy measures is managed internally by the central bank. This requires a solid legal basis in existing economic policies that set out the long-term policy arc of the EU. For example, for clean energy investments, this could involve following the Taxonomy Regulation, but also more ad hoc policies such as RePowerEU or the Clean Industrial Act. Here, it is also crucial to monitor whether a conflict can occur with medium-term price stability for sectors already at capacity. **Multilateral coordination**, in contrast, involves a degree of shared decision-making over the design of monetary policy measures. Such multilateral coordination has clear advantages. The ECB can directly coordinate the selection of investments crucial for long-term price stability by creating new agencies, supporting existing public development banks, or through credit councils or other standing bodies.

A combination of both is likely needed. By ensuring adequate support for sectors that are crucial for long-term price stability, the ECB can overcome myopia and avoid an incoherent policy mix.

83 van 't Klooster and de Boer, 'What to Do with the ECB's Secondary Mandate'; Nik de Boer, Seraina Grünewald, and Jens Van 't Klooster, 'The Law and Politics of Independent Policy Coordination: Fiscal and Sustainability Considerations in the European Central Bank's Monetary Policy', EBI Working Paper (Frankfurt: European Banking Institute, 2024).

84 Case C-11/00 *Commission v. ECB*, ECLI:EU:C:2003:395, para. 134 and 135

85 e.g. Article 284(1) and (2) TFEU, Protocol No. 2, Article 7 and Protocol No. 14, Article 1 TFEU.

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