Monetary policy issues in the context of the war in Ukraine

On 24 February 2022, Russia launched an invasion of Ukraine. The war itself, as well as related sanctions and counterr sanctions are expected to have a significant impact on price stability, and possibly financial stability, in the euro area. In addition, the effective implementation of EU sanctions, targeting the Russian financial and capital markets, are in the hands of the European financial sector. These measures relate closely to the operational implementation of the monetary policy and payments systems.

This next large shock comes at a moment when the euro area barely entered the recovery phase of the COVID-19 crisis. The steep and persistent rise in prices observed in recent months could have a dampening effect on economic activity, thus threatening the nascent economic recovery after the pandemic. Inflationary pressure was building up even before the war in Ukraine started. Headline harmonised index of consumer prices (HICP) inflation was surprising on the upside and increasing month after month since spring 2021, driven mainly by high energy prices and supply bottlenecks, to reach a record of 7.4% in March 2022 and 7.5% in April 2022 according to the Eurostat flash estimate. The war in Ukraine threatens to make this inflationary pressure more persistent and broad-based.

Euro area HICP inflation: annual rate of change (January 2020 - April 2022)

Note: April 2022 - flash estimate.
Source: Author's elaboration based on ECB’s Statistical Data Warehouse.
HICP inflation: a) per Member State (last three months), and b) main components (April 2022 flash estimate)

a) per Member State (last three months)

Note: April 2022 - flash estimate.
Source: Author's elaboration based on ECB's Statistical Data Warehouse and Eurostat.

Apart from a direct impact on energy, commodity and food prices, particular attention should be paid to possible second-round effects through wage increases, upward revision (or unanchoring) of inflation expectations and USD-EUR exchange rate movements due to relative differences in monetary policy stances, in particular between the Federal Reserve and the ECB. In terms of financial stability, the war could induce volatility in financial markets, rising risk premia, deterioration of financing conditions and re-emergence of fragmentation risk in the euro area.

The ECB emphasised “two-sided optionality”\(^1\) and “data-dependence” in the future course of monetary policy. Such an approach gives flexibility to deal with high uncertainty induced by the war, but it also outlines the possible emerging policy trade-offs for the ECB. Following the monetary policy strategy review concluded in July 2021, “other considerations relevant for the pursuit of price stability” are embedded in the ECB’s analytical and decision-making framework\(^2\). For instance, financial stability is considered as a precondition to price stability\(^3\). In the current context, the ECB could face trade-offs different from those during the previous crises. Monetary policy normalisation is warranted due to the sustained inflationary pressure, yet it might produce adverse impacts on financial stability and economic growth (and policies aimed at the green transition and energy independence). This situation will require a delicate balancing act between conflicting policy objectives in a period of high uncertainty caused by the war in Ukraine.
The ECB’s Governing Council decisions to address rising inflation

1. Interest rates

At the time of writing, the Governing Council kept the key ECB interest rates unchanged:

- Main refinancing operations (MRO): 0.00% (since March 2016);
- Marginal lending facility: 0.25% (since March 2016); and
- Deposit facility: -0.50% (since September 2019).

The deposit facility rate, which is used by banks to make overnight deposits with the Eurosystem, has been negative since June 2014. Moreover, the last time the ECB increased key interest rates was more than a decade ago (July 2011).

The forward guidance on interest rates remained through the first year of the pandemic period as articulated in the September 2019 decision when the calendar-based element was dropped and forward-guidance became state-contingent. In July 2021, after the conclusion of the monetary policy strategy review, the forward guidance was reformulated:

“In support of its symmetric two per cent inflation target and in line with its monetary policy strategy, the Governing Council expects the key ECB interest rates to remain at their present or lower levels until it sees inflation reaching two per cent well ahead of the end of its projection horizon and durably for the rest of the projection horizon, and it judges that realised progress in underlying inflation is sufficiently advanced to be consistent with inflation stabilising at two per cent over the medium term. This may also imply a transitory period in which inflation is moderately above target.”

With this, the ECB defined three criteria that need to be fulfilled before it would start raising interest rates: i) inflation reaching 2% “well ahead” of the projection horizon, ii) inflation stabilizing durably for the rest of the projection horizon, and iii) progress in underlying inflation consistent with inflation stabilising at 2% over the medium term.

In March 2022, with inflation increasing much faster than anticipated, the ECB made three key adjustments to its forward guidance by: (i) removing the “easing bias” (i.e. the “or lower”) in the formulation, (ii) decoupling the interest rate hike decision from end of net asset purchases (interest rate adjustment “some time after” the end of net asset purchases), and (iii) reconfirming the commitment to stabilise inflation at 2% over the medium term and to a “gradual” adjustment of the interest rates. The ECB’s current forward guidance on interest rates, confirmed in the 14 April 2022 Governing Council meeting, is as follows:

“Any adjustments to the key ECB interest rates will take place some time after the end of the Governing Council’s net purchases under the APP and will be gradual. The path for the key ECB interest rates will continue to be determined by the Governing Council’s forward guidance and by its strategic commitment to stabilise inflation at 2% over the medium term. Accordingly, the Governing Council expects the key ECB interest rates to remain at their present levels until it sees inflation reaching 2% well ahead of the end of its projection horizon and durably for the rest of the projection horizon, and it judges that realised progress in underlying inflation is sufficiently advanced to be consistent with inflation stabilising at 2% over the medium term.”

2. Asset purchase programmes

a. Asset purchase programme (APP)

Net asset purchases under the APP have restarted in November 2019 at a pace of EUR 20 billion per month. In March 2020, at the beginning of the pandemic, the Governing Council increased the existing net
purchases under the APP with an additional envelope of EUR 120 billion to be used by the end of 2020. On 16 December 2021, the Governing Council decided to recalibrate the pace of asset purchases: EUR 40 billion per month in the second quarter of 2022, EUR 30 billion in the third quarter of 2022 and EUR 20 billion per month from October 2022 onwards.

Facing sustained inflationary pressure, on 10 March 2022, the Governing Council revised the purchase schedule and scaled back net asset purchases under the APP: EUR 40 billion in April, EUR 30 billion in May and EUR 20 billion in June. The ECB indicated that the decision to stop or recalibrate net asset purchases in the third quarter would be “data-dependent and reflect the evolving assessment of the outlook”. In its 14 April meeting, the Governing Council further expressed the expectation that net asset purchases “should be concluded in the third quarter”.

As of end-March 2022, cumulative Eurosystem holdings under the APP amount to nearly EUR 3.2 trillion - EUR 2.5 trillion of which is under the public sector purchase programme (PSPP).

The ECB will also reinvest principal payments from maturing securities under the APP “for an extended period of time” after it starts raising key interest rates, thus maintaining the stock of assets.

b. Pandemic emergency purchase programme (PEPP)

The PEPP was introduced in March 2020 to counter “serious risks to the monetary policy transmission mechanism and the outlook for the euro area posed by the outbreak and escalating diffusion of the coronavirus, COVID-19”6. Its initial envelope of EUR 750 billion was subsequently increased to EUR 1.85 trillion.

In line with the Governing Council decision of 16 December 2021, net asset purchases under the temporary PEPP were discontinued at the end of March 2022. At the end of the programme, the cumulative Eurosystem holdings amount to EUR 1.7 trillion - about 97% in government bonds. This means that, under the APP and PEPP, the Eurosystem holds a stock of around EUR 5 trillion of assets.

While net asset purchases have stopped, the Governing Council decided to continue reinvesting principal payments from maturing securities purchased under the PEPP at least until the end of 2024. Furthermore, as decided in December 2021, in case of fragmentation risk arising from the pandemic, the Governing Council is ready to adjust reinvestments “flexibly across time, asset classes and jurisdictions at any time”, including “purchasing bonds issued by the Hellenic Republic over and above rollovers of redemptions in order to avoid an interruption of purchases in that jurisdiction, which could impair the transmission of monetary policy to the Greek economy while it is still recovering from the fallout from the pandemic”.

3. Swap and repo lines with non-euro area central banks

Repo lines are used to provide euro liquidity to non-euro area central banks in exchange for euro-denominated collateral. Swap lines are used by the ECB to exchange euros against other currencies.

Since the war in Ukraine started, the ECB established a precautionary swap line with the National Bank of Poland to provide euro liquidity to financial institutions in Poland. In addition, the Eurosystem repo facility for central banks (EUREP) set up in June 2020 was extended as well as bilateral repo lines to several non-euro area central banks (Hungary, Albania, North Macedonia and San Marino)7. The EUREP and the bilateral swap lines were due to expire in March 2022, and have now been prolonged to 15 January 2023. The EUREP, compared to a bilateral repo line, is accessible to a wide range of non-euro area central banks, more expensive and the range of collateral is narrower.
4. **Comparison with recent decisions of the Federal Reserve and the Bank of England**

**Rising inflation since spring 2021 is a global phenomenon** and equally poses a challenge for central banks in other jurisdictions. The figure below shows headline inflation rates in the euro area, US and UK, all exceeding the respective central bank inflation targets by a wide margin. Core inflation measures, which exclude food and energy prices as volatile components, reveal that core inflation in the US and UK is currently about two percentage points higher than in the euro area. When setting monetary policy, a focus on (various measures of) core inflation enables the central bank to avoid overreacting to transitory supply shocks. Core inflation is thus considered a better indicator of underlying inflation trends. However, maintaining headline inflation stable is the ultimate objective of monetary policy. Periods of persistently high headline inflation are likely to lead to second-round effects and upward revisions of inflation expectations.

Inflation rates in the euro area, US and UK: headline (solid lines) and core - excluding food and energy (dotted lines)

![Inflation rates chart](chart)

Notes: Percent changes from one year ago, by month. Euro area: Harmonised Index of Consumer Prices (HICP); US: Personal Consumption Expenditures (PCE), UK: Consumer Price Inflation (CPI). Solid lines represent headline inflation and dotted lines represent core inflation excluding food and energy.

Sources: Author’s elaboration based on data from the ECB’s Statistical Data Warehouse (euro area), FRED, Federal Reserve Bank of Saint Louis (US), Office for National Statistics (UK headline), Organisation for Economic Co-operation and Development (UK core).

Direct comparisons of the current policy responses between the different monetary authorities are difficult due to the differences in central bank mandates, institutional frameworks, economic structures and, importantly for the current context, trade relations and financial exposure to other countries, in particular Ukraine and Russia. Nevertheless, since the steep rise in inflation that started in the recovery phase of the pandemic is occurring simultaneously in these economies, it is informative to at least **take stock of the monetary policy measures taken by other major central banks**, such as the Federal Reserve and the Bank of England. In addition, relative differences in monetary policy stances, in particular with the Federal Reserve, are important as they affect exchange rates which then, in turn, have an impact on import prices and inflation.

The **Federal Open Market Committee (FOMC)** decided on a 25-basis-point rate hike on 16 March 2022 (first increase since 2018). On 4 May 2022, the FOMC decided on a further 50-basis-point increase, first one since 2000. The current federal funds target range is 0.75%-1%. In terms of asset purchases, the FOMC has...
decided to end net purchases of Treasury securities and mortgage-backed securities (MBS) in early March, after having gradually reduced the pace of monthly purchases since November 2021. The Federal Reserve was reinvesting principal repayments from its securities holdings. On 26 January 2022, however, the FOMC agreed on the “principles for reducing the size of the Federal Reserve’s balance sheet”9. The FOMC intends to reduce the Federal Reserve’s balance sheet primarily by adjusting the amounts of reinvestments of principal payments, instead of engaging in active selling of assets. On 4 May 2022, the FOMC made the next step in its tightening cycle by agreeing on a “plan for reducing the size of the Federal Reserve’s balance sheet”10. During the first three months, the balance sheet will be reduced by USD 47.5 billion (USD 30 billion Treasury securities and USD 17.5 billion MBS) per month, after that by USD 95 billion (USD 60 billion Treasury securities and USD 35 billion MBS) per month.

On 5 May 2022, the Bank of England’s Monetary Policy Committee (MPC) raised its key interest rate by 25 basis points, to 1%11. That was the fourth such increase in the last three meetings. With respect to asset purchases, as of 16 March 2022, the total stock of assets held in the Bank of England’s Asset Purchase Facility (APF) was GBP 867 billion, comprised GBP 847 billion of UK government bonds and GBP 20 billion of sterling non-financial investment-grade corporate bonds. The MPC favours a “gradual and predictable” pace of reduction of its asset holdings. On 2 February 2022, the MPC decided12 to begin the reduction of the stocks of bonds held in the APF, by stopping reinvestments of maturing UK government bonds. Bank of England’s Governor Andrew Bailey has informed the UK Chancellor of the Exchequer that, in 2022-2023, over GBP 70 billion of government bonds held under the APF will mature and, in 2024-2025, a further GBP 135 billion13. Following its 5 May 2022 meeting, the MPC stated that it will consider active sales of UK government bonds held under the APF. Bank of England staff was asked to prepare a strategy for UK government bond sales, to be considered by the MPC in August, possibly followed by a decision on sales at a subsequent meeting14.

Measuring the overall monetary policy stance in a world of unconventional measures is a difficult task. Comparisons between central banks are even more complicated due to the differences in instruments employed. To help measure the effects of unconventional monetary policies when policy interest rates are at the zero lower bound, different models and estimates have been developed. For instance, the “shadow rate” is an analytical tool used to quantify the monetary policy stance taking into account unconventional monetary policies and expressing it as a short-term interest rate15. The figure below shows shadow rates for the euro area, US and UK, as estimated by Jing Cynthia Wu and Fan Dora Xia, before the recent decisions.
Monetary policy issues in the context of the war in Ukraine

Shadow rate estimates for the euro area, US and UK

Note: Does not take into account the most recent decisions by the respective central banks in February, March and May.

Source: Author’s elaboration based on Wu-Xia shadow rate estimates for the euro area, US and UK.

Another useful comparison is the relative sizes of the central banks’ balance sheets, as shown in the figure below, again showing the situation before the recent tightening decisions.

Central bank assets, as percentage of GDP

Sources: Author’s elaboration based on data from the Atlantic Council’s Global QE Tracker.

Other considerations beyond price stability

1. Financial stability

The ECB has maintained that the direct impact of the war in Ukraine on financial stability in the euro area has thus far been largely contained. Overall, the direct exposure of European banks to Russia and Ukraine is limited and concentrated in a few significant banks. Recent geopolitical tensions have significantly increased the risk of cyber incidents aimed at the financial system. Another concern relates to non-
performing loans (NPLs). NPLs have been steadily declining until end-2021, but this trend could reverse due to the negative impact of the war on growth.

The latest European Systemic Risk Board (ESRB)’s composite indicator of systemic stress (CISS) published on 31 March 2022 shows an elevated level of systemic stress in the financial system (in particular in Member States where the financial sector’s exposure to Russia is higher), but still below levels seen in the previous crises. Due to its asymmetric impact, the war in Ukraine could bring about another period of fragmentation in euro area sovereign bond markets. In addition, in the context of the currently high inflation, the ECB is expected to continue on the path of monetary policy normalisation, which could entail gradually ending net asset purchases, the first interest rate increase in more than 10 years and stopping reinvestments of principal repayments under its asset purchase programmes. There has been some fragmentation in sovereign bond markets in the euro area in the early phase of the Russian invasion of Ukraine. The sovereign CISS, which measures stress is euro area sovereign bond markets, is also elevated, almost at the level of March 2020, when the COVID-19 pandemic started. However, the real test of resilience is likely to occur in case the ECB decides on a more aggressive approach to monetary policy normalisation.

Even though the prolonged period of accommodative monetary policy and increased average maturity of sovereign debt might have, in general, decreased the sensitivity of debt servicing costs to rising interest rates, some Member States appear more vulnerable than others. The ECB’s recent decisions reflect the fact that it takes fragmentation risk seriously (e.g. the flexible reinvestment policy under the PEPP, including in Greek government bonds). ECB President Christine Lagarde recently reaffirmed the ECB’s readiness to use a wide range of instruments, including designing and deploying new ones, to address fragmentation. In a high inflation scenario, it would be more difficult to justify, for instance, new asset purchases strictly for price stability purposes.

2. Climate and energy policies

The Russian invasion of Ukraine has made it the EU’s highest policy priorities to reduce its energy dependency and accelerate the green transition. EU policies in these areas have direct implications for both the ECB’s primary objective (price stability, according to Article 127 of the Treaty on the Functioning of the European Union) and its secondary objectives (without prejudice to the objective of price stability, support EU’s “general economic policies”, according to Article 3 of the Treaty on European Union).

With respect to price stability, a recent speech by ECB Executive Board member Isabel Schnabel outlined three different sources of inflationary pressure: i) “climateflation” or direct price increases as a result of climate change (natural disasters and extreme weather events), ii) “fossilflation” or legacy costs of dependence on fossil fuels, which is currently the main driver in the increase in inflation, iii) “greenflation” or the increase in prices due to the transition to a greener economy.

As a result of the war, the latter two are expected to play a significant role in the inflation process in the short and medium term. The ECB, in setting monetary policy, will take into account these developments. As one of the outcomes of the July 2021 monetary policy strategy review, the Governing Council adopted an action plan to further include climate change considerations in the ECB’s monetary policy framework. In the current context, however, trade-offs could emerge between objectives. For instance, persistently high inflation would warrant monetary tightening which, in turn, might undermine investments and incentives necessary for the EU’s green transition and energy independence. In this case, it could be argued that the order of priorities is not clear cut, as disregarding the latter might impede the ECB’s ability to pursue price stability in the long run. On the other hand, ensuring price stability in the medium term is the ECB’s primary, Treaty-defined mandate. Failure to deliver on that objective would have a clear detrimental effect on the ECB’s credibility.
3. ECB/Eurosystem staff projections

Forecasting is a central element of monetary policy decision-making. It is widely recognised that monetary policy affects economic activity with a time lag. This is the reason why monetary policy has a medium-term orientation. Because monetary policy decisions have to be forward-looking, central bank forecasts about the future path of inflation (and other variables) play a key role. Forecasts are not only important as input for decision-making, they also help implicitly guide expectations and provide information about the central bank’s commitment to price stability.

For the period between the European sovereign debt crisis and the COVID-19 pandemic, observers have noted a systematic bias of Eurosystem/ECB inflation forecasts. Forecasts have persistently over-predicted inflation in that period. ECB staff tried to identify the sources of projection errors, while noting that Eurosystem/ECB macroeconomic projections have performed similarly to those of private sector forecasters and other international institutions.

Providing meaningful forecasts in times of extreme shocks such as the global financial crisis or the COVID-19 pandemic is certainly challenging. Breaking with the previous trend, since spring 2021, actual inflation has been surprising on the upside month after month, reaching a record of 7.4% in March 2022 (7.5% in April, according to the flash estimate). The war in Ukraine has caused a significant increase in uncertainty that might well persist in the future.

The March ECB staff macroeconomic projections were published on 10 March, with a cut-off date for technical assumptions on 28 February. With a clear disclaimer for high uncertainty, the baseline scenario forecasts headline HICP inflation of 5.1% in 2022, 2.1% in 2023 and 1.9% in 2024. Compared to the December 2021 projections, there was a substantial upward revision of the inflation forecast for 2022 (+1.9 percentage points - p.p.) and a minimal revision over the later part of the medium-term horizon (+0.3 p.p. for 2023 and +0.1 p.p. for 2024). ECB staff also produced two alternative scenarios: “adverse” and “severe”. Under the adverse scenario, inflation would reach 5.9% in 2022, 2% in 2023 and 1.6% in 2024. Under the severe scenario, inflation would be 7.1% in 2022, 2.7% in 2023 and 1.9% in 2024. In each of the three scenarios, inflation is expected to revert back to the ECB’s 2% target in the medium-term. These projections have attracted some criticism, both from external observers as well as members of the Governing Council. It is evident that some key technical assumptions, such as those for oil prices and exchange rates became outdated rather quickly. More broadly, the issue of “mean reversion” in forecasting models (or in the context of inflation: the expected reversion to the ECB’s target of 2% in the medium term) has been identified as problematic, especially in the current context of the successive large shocks caused by COVID-19 and the war in Ukraine. Systematic under-forecasting of inflation in the future might negatively impact the ECB’s credibility.

4. Public trust

The latest Standard Eurobarometer for winter 2021-2022 published in April 2022 shows a significant deterioration of public trust in the ECB, in particular in some countries, as shown in the figure below.

“Rising prices/inflation/cost of living” was indicated as the personally most important issue for the respondents in the euro area (51%, 17 p.p. increase since Spring 2021). An important relationship to observe in this context is the one between inflation, inequality and public trust. For different reasons, high inflation has a disproportionate impact on lower-income households. This is referred to as “inflation inequality”. Inequality, in turn, tends to reduce public trust in the ECB, but also in other EU institutions.
Standard Eurobarometer 96, Winter 2021/2022, question 10.3.: “Do you tend to trust or tend not to trust the European Central Bank?”

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1 Account of the monetary policy meeting, 9-10 March, summarising the introduction of Mr Philip Lane: “On the one hand, policy should not be restricted in its timely response to the risk of excess inflation, should the observed price pressures extend into the medium term. On the other, the possibility to take all the measures necessary if the current crisis continued to escalate should not be ruled out, as further escalation might stifle the economic rebound in the euro area and jeopardise the stability of the financial system.”


3 See e.g. the integrated analytical framework (the monetary and financial analysis pillar), proportionality assessments and flexibility of the medium-term orientation. For an example how the Governing Council resorted to a lengthening of the medium-term horizon to mitigate risks to financial stability in December 2020, see Schnabel, I. (2021). “Monetary policy and financial stability”. Speech at the fifth annual conference of the European Systemic Risk Board.

4 “The Governing Council expects the key ECB interest rates to remain at their present or lower levels until it has seen the inflation outlook robustly converge to a level sufficiently close to, but below, 2% within its projection horizon, and such convergence has been consistently reflected in underlying inflation dynamics.”

5 See Account of the monetary policy meeting, 9-10 March


The New Euro Area Inflation Indicator and Target: The Right...VoxEU, 31, summarising the discussion on the economic, monetary and financial analyses:  

- Adverse: assumes a worsening in all three channels (trade, commodities and confidence) and, in particular, constraints in the production capacity of the euro area. Severe: a steeper and more persistent rise in commodity prices, triggering second-round effects from higher inflation and broader financial amplification effects.
- Account of the monetary policy meeting, 9-10 March, summarising the discussion on the economic, monetary and financial analyses: "In particular, doubts were expressed about the convergence of inflation to 1.9% as expected in the baseline staff projection for 2024, the last year of the projection horizon. The question was raised as to how one could expect such a fast mean reversion in inflation, faster than in the previous projection round, after the current huge shocks to inflation. It appeared puzzling that inflation projections would still fall somewhat short of the 2% target in 2024 despite consecutive upside surprises in inflation outcomes, a persistently positive output gap for most of the projection horizon and the latest increases in longer-term inflation expectations. In this context, it was acknowledged that models estimated on historical data naturally had their limits in the face of unusual shocks and possible turning points or regime shifts."

Account of the monetary policy meeting, 9-10 March, summarising the introduction of Mr Philip Lane: "Looking at developments in commodities and exchange rates, the picture for oil prices was changing by the day, with the oil price on 7 March clearly above the level assumed in the March 2022 ECB staff projection exercise. Regarding the exchange rate, a distinction needed to be drawn between what was happening in bilateral movements of the euro exchange rate and the evolution of the euro’s effective (trade-weighted) exchange rate. The heightened uncertainty from the Russian invasion had led investors to move into safe-haven currencies. The euro had appreciated strongly against the currencies of central and eastern European countries and had depreciated notably against the US dollar. When weighting the different developments, in nominal effective terms, the fall in the euro had not been very pronounced."


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