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REGIONAL ECONOMIC OUTLOOK

EUROPE

Europe's Balancing Act: Taming
Inflation without a Recession

2023
APR



World Economic and Financial Surveys

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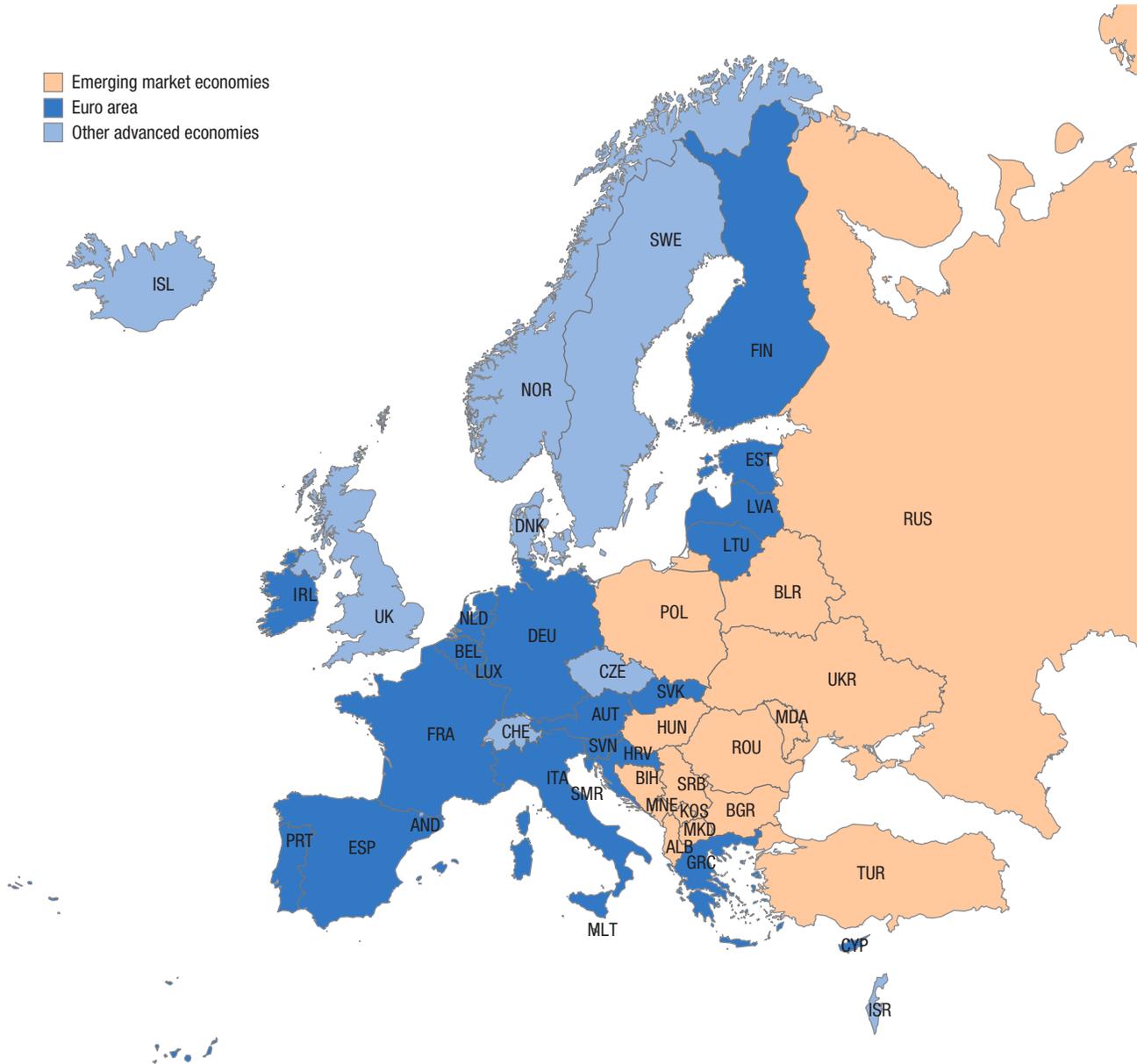
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April 2023 Regional Economic Outlook: Europe

- Emerging market economies
- Euro area
- Other advanced economies



Note: The boundaries, colors, denominations, and any other information shown on the maps do not imply, on the part of the International Monetary Fund, any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries. In this report, country abbreviations are International Organization for Standardization country codes. UK = United Kingdom.

Executive Summary

Europe faces the difficult task of simultaneously bringing down inflation, sustaining economic growth, and preserving financial stability, as it grapples with the fallout of the energy crisis triggered by *Russia's* invasion of *Ukraine* and the aftermath of the COVID-19 pandemic. While declining, inflation remains very high. Growth has tumbled since the middle of last year as inflation lowered households' real incomes. An all-out recession was avoided this winter thanks to sharply lower energy prices and government relief measures. Following the fastest tightening in decades, monetary policy is starting to bite, and financial sector risks have materialized.

Europe's outlook is one of slow growth and sticky inflation. Supply forces—lower energy prices, easing supply bottlenecks—should provide tailwinds. Meanwhile, gradually easing demand headwinds—improving household purchasing power, some unwinding of the tightening of financial conditions later next year—should support a slow recovery. Annual growth is expected to rebound in 2024—from 0.7 percent in 2023 to 1.4 percent in 2024 in *advanced European economies*, and from 1.1 to 3.0 percent in *emerging European economies* (excluding *Belarus, Russia, Türkiye, and Ukraine*). Average inflation is projected to decline to 5.6 percent in 2023 and 3.0 percent in 2024 in *advanced European economies*, and to 11.7 percent in 2023 and 5.5 percent in 2024 in *emerging European economies*. Revisions with respect to the October 2022 forecasts are small for *advanced European economies*, while they are on the downside for growth and on the upside for inflation in *emerging European economies*.

This outlook comes with severe and interconnected risks. Failure to contain financial stability risk could lead to crisis and lower growth. While tighter macroeconomic policies could add to financial sector worries, failure to act forcefully now—as assumed—to bring down inflation could mean higher inflation later, forcing even greater than projected policy tightening and an economic downturn. At the same time, tight labor markets, a resurgence of energy prices, or fragmentation risks could bring lower growth and higher inflation. This will further complicate the task of European policymakers.

To succeed in taming sticky inflation while avoiding financial stress and a recession, macroeconomic, financial, and structural policies need to work in concert. Tight(er) monetary policy is needed to bring inflation down decisively to central bank targets. Further increases in policy rates are required in the *euro area*, while central banks in *emerging European economies* should stand ready to tighten further where real rates are low, labor markets are tight, and underlying inflation persistence is high. A tighter stance is also a desirable response to high uncertainty around economic slack and inflation persistence. Financial sector liquidity risks should be addressed primarily through central banks' well-established lender-of-last-resort role.

Maintaining financial stability across markets and bank and nonbank financial institutions will require close monitoring, contingency planning, and prompt corrective action. In the European Union, stability could be bolstered by extending the reach of bank resolution tools, clarifying the availability of the Single Resolution Fund's resources, ratifying the European Stability Mechanism's amended treaty, and agreeing on a pan-European deposit insurance. Macroprudential policies should maintain or increase buffers as needed. Measures to help households cope with rising interest rates should be targeted and well-designed. Forced conversions from flexible- to fixed-rate mortgages at below market rates and regulatory forbearance should be avoided.

Governments should pursue more ambitious fiscal consolidation. Tighter fiscal policy would support monetary policy in the fight against inflation, helping central banks meet their objectives at lower interest rates, with positive spillovers for public debt service costs and financial stability. It would also restore depleted fiscal space and governments' ability to cope with large future shocks.

Structural reforms should prioritize easing growth-inflation trade-offs. Raising female and older workers' labor force participation and enhancing job matching would reduce labor market tensions. In the European Union, progress on implementing the Recovery and Resilience Plans and the Capital Markets Union could unlock investments needed to raise crisis-hit productive capacity, achieve the European Union's climate goals, and enhance energy security. Subsidies to green industries should be limited in scope and well-targeted and minimize distortions to international trade and the single market.

Europe's Balancing Act: Taming Inflation without a Recession

Inflation remains very high, but economic growth has slowed rapidly as some financial sector risks have materialized and Europe continues to grapple with the fallout from the energy crisis caused by Russia's invasion of Ukraine and the pandemic. The expected recovery in the course of the year assumes that policymakers manage to keep financial stress contained and tame inflation without a recession. Given still tight labor markets, monetary policy will need to remain contractionary until inflation subsides decisively. Fiscal consolidation will need to become more decisive. Financial stability could be tested again, and policymakers should closely monitor developments, identify weaknesses, and take swift action where needed. Beyond the short term, the scars that the COVID-19 and energy crises have left on potential output require structural reforms to boost labor supply and ensure energy security by accelerating the ongoing green transition. These reforms would sustainably expand Europe's productive capacity and reduce price pressures in the medium term.

Europe Has So Far Avoided an All-Out Recession . . .

Europe is facing the difficult task of bringing down inflation, sustaining economic growth, and maintaining financial stability, as the economy adjusts to the consequences of the energy crisis triggered by Russia's invasion of Ukraine and the aftermath of the COVID-19 pandemic (Figure 1, panel 1).

GDP growth across *Europe* has slowed significantly. Activity decelerated sharply in the second half of 2022 as inflation lowered real incomes, monetary tightening started to bite, and growth slowed in key trading partners. A few *advanced European economies* are expected to post negative sequential GDP growth in the first quarter of 2023. Some *emerging European economies* already experienced technical recessions—at least two consecutive quarters of negative GDP growth—in 2022. The weakness was broad-based, with both private consumption and investment cooling (Figure 1, panel 2). High-frequency surveys suggest that activity remains subdued, although there are tentative signs that growth may have bottomed out (Figure 1, panel 3).

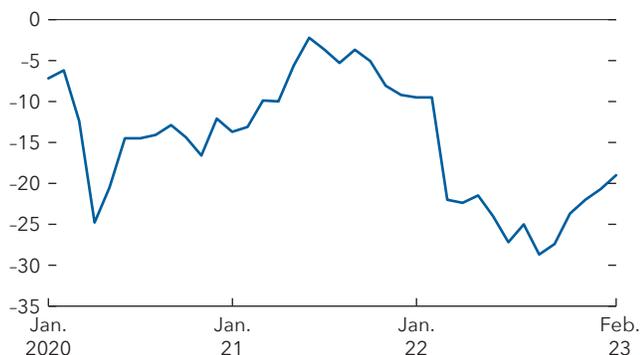
Economic activity would have been even weaker if energy prices had not dropped and supply-chain bottlenecks eased. The warm winter alleviated natural gas shortages by lowering demand (Figure 1, panel 4), and weaker economic activity outside Europe (especially in *China*) freed up global liquified natural gas supply. Proactive policies helped at both ends by improving infrastructure, increasing imports and inventories, and improving demand efficiency. By early 2023, natural gas and electricity prices had dropped to about half of their 2022 averages. In addition, the unwinding of global supply chain problems eased price pressures through lower shipping costs and more readily available inputs.

Energy relief measures also supported activity. Toward the end of the year, most *advanced* and many *emerging European economies* rolled out broad-based measures to help households and firms cope with the cost-of-living crisis, blunting the contractionary effects of the phasing out of COVID-19-related support measures and robust tax revenue growth driven in part by higher inflation. As a result, aggregate fiscal consolidation in *advanced European economies* fell short of the projections in the October 2022 *World Economic Outlook*. On average, fiscal positions deteriorated in *emerging European economies*.

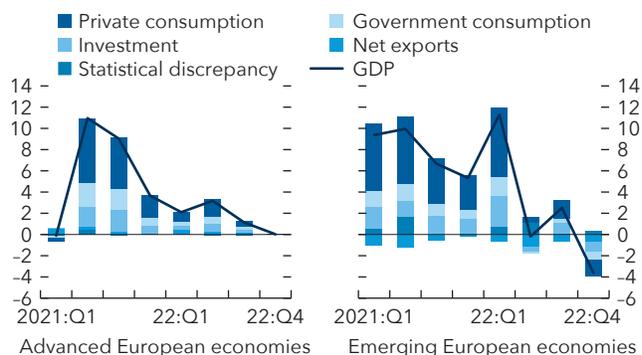
¹ This chapter was prepared by Gabriel Di Bella, Agustin Roitman, and Sebastian Weber, with contributions from Chikako Baba, Luis Brandao Marques, Geoffroy Dolphin, Gianluigi Ferrucci, Shakill Hassan, Ting Lan, Claire Li, Grace Li, Aiko Mineshima, Vina Nguyen, Ben Park, Manasa Patnam, Alex Pienkowski, Frederik Toscani, and Laura Valderrama, under the supervision of Helge Berger and Romain Duval. Agnesa Zalezakova provided administrative support. It reflects data and developments as of March 30, 2023.

Figure 1. Recent Economic Developments**1. Euro Area: Consumer Confidence's Double Dip**

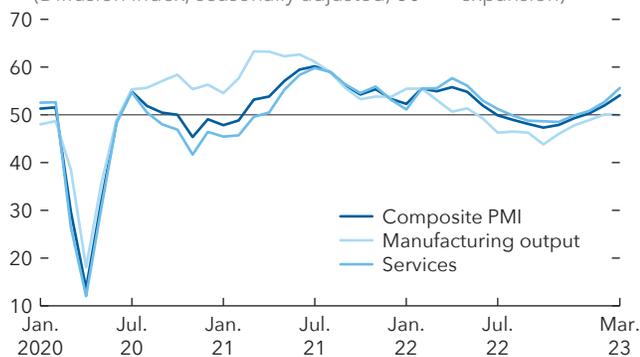
(Seasonally adjusted, percent balance)

**2. GDP Growth Contributions**

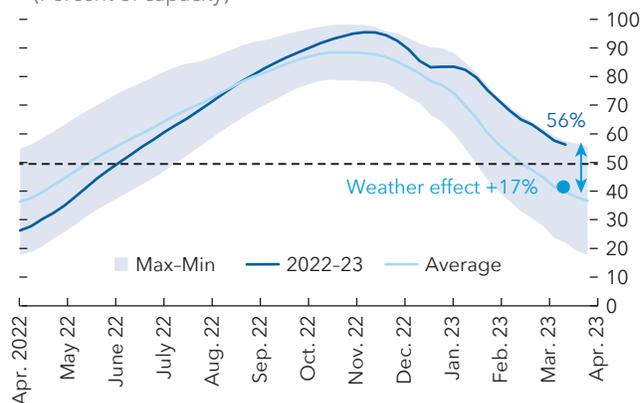
(Quarter-over-quarter annualized percent change contribution to GDP, seasonally adjusted)

**3. Euro Area: PMI Indices**

(Diffusion index, seasonally adjusted, 50+ = expansion)

**4. European Union: Natural Gas Storage, 2015-23**

(Percent of capacity)



Sources: Bruegel; European Commission; Eurostat; Haver Analytics; and IMF staff calculations.

Note: In panel 4, maximum and minimum values are calculated using 2015-20 values. Advanced European economies includes Austria, Belgium, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom. Emerging European economies includes Albania, Bosnia and Herzegovina, Bulgaria, Hungary, Kosovo, North Macedonia, Moldova, Montenegro, Poland, Romania, and Serbia. PMI = purchasing managers' index.

... But Core Inflation Remains High ...

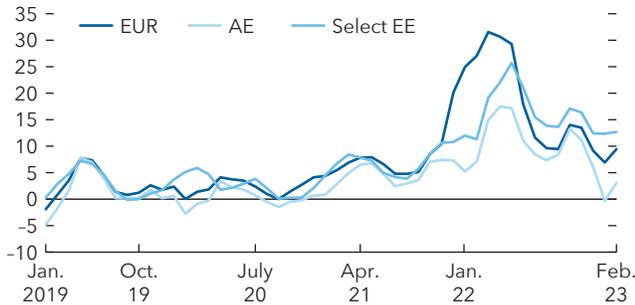
Inflation remains significantly above target across Europe (Figure 2, panel 1). By end 2022, falling commodity prices and easing supply-chain bottlenecks contributed to a sharp downward turn in headline inflation (for example, in *Belgium, Greece, The Netherlands, and Spain*). But core inflation surprised on the upside and continued increasing to double-digit levels in several *advanced European economies (the Baltics, Czech Republic)* and *emerging European economies (Bulgaria, Hungary, North Macedonia, Poland)* (Figure 2, panel 2). Lower energy prices will ease underlying inflation pressures in the months ahead, but, on their own, will not be enough to bring inflation back down to central bank targets (Figure 2, panel 6). Moreover, inflation expectations have increased relative to a year ago and remain above target in several economies (*Hungary, Poland*).

Tight labor markets and a buildup of wage pressures have fueled core inflation. Vacancy-to-unemployment ratios remain near record highs in the *euro area* and broadly in line with their pre-COVID-19 heights in *emerging European economies* (Figure 2, panel 3). Employment and hours worked are back to pre-pandemic levels in most cases. More broadly, many European economies are operating at close to or above full capacity. Average output gaps across *advanced European economies*, including the *euro area*, are estimated to have turned positive in

Figure 2. Inflation and Labor Market Indicators

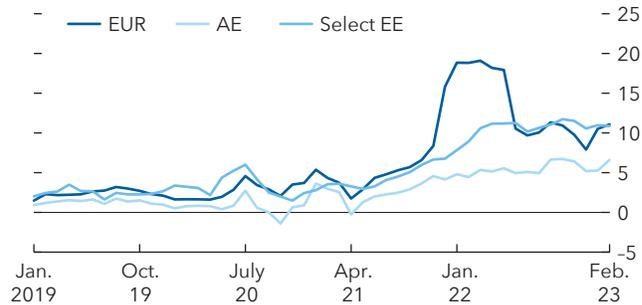
1. Headline Inflation

(Percent change, three-month moving average of month-over-month annualized)



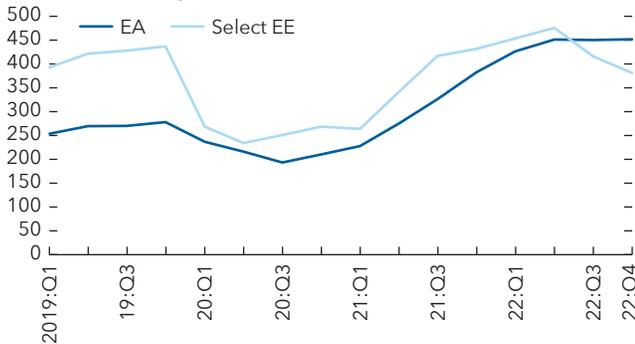
2. Core Inflation

(Percent change, three-month moving average of month-over-month annualized)



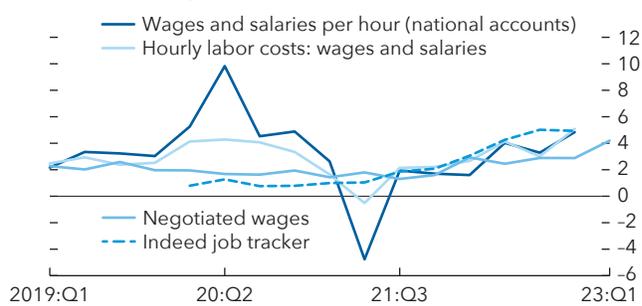
3. Labor Market Tightness

(Vacancies per unemployed, seasonally adjusted, 2015:Q1 = 100)



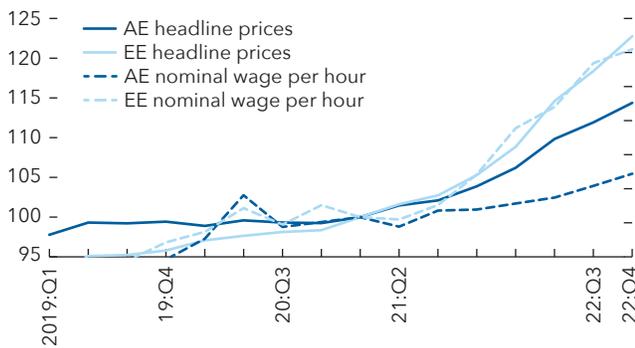
4. Euro Area: Indicators of Wages and Salaries

(Year-over-year percent change)



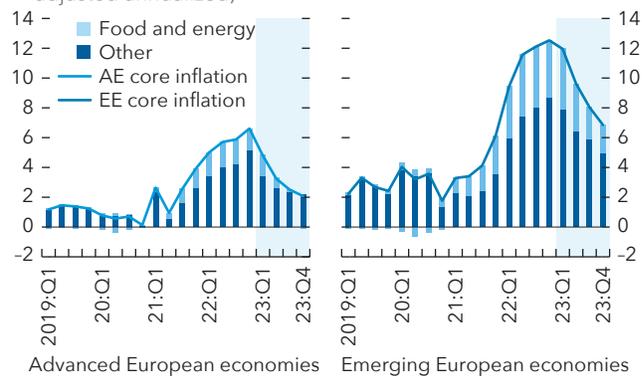
5. Prices and Wages

(Index, 2021:Q1 = 100)



6. Core Inflation and External Price Shocks

(Quarter over quarter, percent change; seasonally adjusted annualized)



Sources: Haver Analytics; Indeed, Wage Tracker; IMF, World Economic Outlook database; and IMF staff calculations.

Note: In panel 3, select emerging European economies on the right subpanel includes Bulgaria, Hungary, Poland, and Romania; euro area excludes Malta due to a lack of data. In panel 6, contributions and projections are calculated based on the dynamic simulations of country-by-country Phillips curve regressions. AE = advanced European economies; EE = emerging European economies; EUR = Europe.

2022. Excluding *Belarus, Russia, Türkiye, and Ukraine*, emerging European economies recorded even higher positive output gaps in 2022 than in 2021. Against this backdrop, it is not surprising that nominal wage growth has picked up. In emerging European economies, nominal wages kept up with double-digit headline inflation, reinforcing core inflation pressures. In advanced European economies, especially in the euro area, nominal wages have increased more slowly than inflation, but the implied drop in real wages is fueling workers' demands for more raises, pointing to a risk of sustained high core inflation ahead (Figure 2, panels 4 and 5).

... And Recent Financial Market Stress Is Adding Headwinds

Financial conditions have broadly tightened across European economies. Even before the recent increase in financial market stress, expectations of higher policy rates and shrinking central bank balance sheets had lifted longer-term bond yields and turned bank lending standards more restrictive. As interest rates rose, however, so did tensions in some corners of financial markets. In the fall of last year, market turmoil in the *United Kingdom* following the announcement of a deficit-increasing fiscal package revealed financial vulnerabilities among nonbank financial institutions (NBFIs), forcing the Bank of England to intervene to restore orderly market conditions. In March, banking sector stress in the *United States* spilled over to Europe, causing sharp declines in banks' equity prices. In some *emerging European economies*, exchange rate pressure increased (for example, *Hungary*). While decisive actions by the authorities in *Switzerland* reduced immediate contagion risks from the feared failure of Credit Suisse, financial market risk levels remain elevated. As a result, overall financing conditions are likely to remain tighter than they would otherwise have been. This holds despite the fact that markets have somewhat pared back expectations of monetary tightening following these events (for example, in the *euro area* and *United Kingdom*).

Europe's Outlook: Slow Recovery, Sticky Inflation

This *Regional Economic Outlook: Europe* assumes that policymakers will continue to act to lower inflation, alleviating the need for a sharper tightening and deeper economic slowdown later. This implies that several central banks, including the European Central Bank (ECB), will tighten further and/or keep a restrictive stance for an extended period, some mild fiscal consolidation will proceed, and any renewed bouts of financial stress will remain contained. Another key assumption underpinning the projections is no further escalation of the war in Ukraine and associated sanctions, which will allow energy and other commodity prices to continue falling in line with April 2023 *World Economic Outlook* projections.²

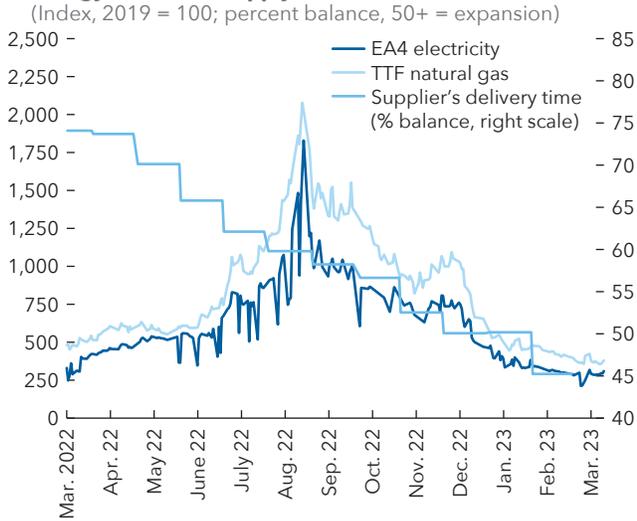
Supply tailwinds and a gradual easing of ongoing demand headwinds should support a gradual recovery in activity starting in the course of 2023, leading to a rebound in annual growth in 2024. In 2023, subdued real wages, tight financial conditions, and soft external demand will weigh on economic activity. But as inflation drops, growth in the *United States* and *China* picks up, and financial conditions start easing during the second half of 2024, these headwinds should gradually ease. Meanwhile, on the supply side, declining energy prices and easing supply bottlenecks (Figure 3, panel 1) will continue to underpin economic activity. Moreover, fiscal consolidation will be less ambitious than expected in last October's *Regional Economic Outlook: Europe* in both *advanced* and *emerging European economies*, limiting the associated drag on growth (Figure 3, panel 2).

Overall, GDP growth in 2023 is forecast to decline to 0.7 percent in *advanced European economies* and to 1.1 percent in *emerging European economies* (excluding *Belarus*, *Russia*, *Türkiye*, and *Ukraine*) before rebounding to 1.4 percent and 3.0 percent in 2024, respectively. This implies upward revisions of about 0.1 percentage point in 2023 and downward revisions of 0.3 percentage point in 2024 in *advanced European economies* and larger downward revisions of 0.5 and 0.4 percentage point in *emerging European economies*, compared to the October 2022 *Regional Economic Outlook: Europe* (Figure 4). Private demand deceleration in 2023 is projected to be particularly sizable in *Hungary* and *Poland* among *emerging European economies* and in *Austria*, *Cyprus*, *Greece*, *Iceland*, *Slovenia*, and the *United Kingdom* among *advanced European economies*. Some of the largest European economies (*France*, *Germany*, *Italy*) are projected to experience weak or negative quarterly sequential growth in 2023, with some facing technical recessions (for example, *Sweden* and the *United Kingdom*).

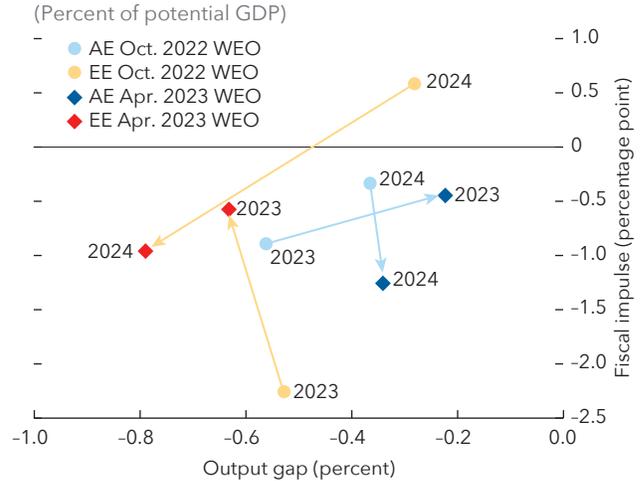
² Western governments imposed far-reaching financial and trade sanctions, including a ban of imports of oil and gas by the European Union, the *United Kingdom*, and the *United States* and a price cap on oil exports to third countries, some of which entered into force in late 2022 and early 2023.

Figure 3. Growth Tailwinds

1. Energy Prices and Supply Bottlenecks



2. Fiscal Stance Measure over Time



Sources: Bloomberg Finance L.P.; IMF, World Economic Outlook database; and IMF staff calculations.

Note: In panel 1, percent balance above 50 indicates longer delivery times. In panel 2, the changes in fiscal policies are inverted to show positive values as expansionary policies and negative values as contractionary policies; fiscal impulse is the change in cyclically adjusted primary deficit excluding grants; advanced European economies excludes Norway, and emerging European economies includes Bosnia and Herzegovina, Bulgaria, Hungary, Poland, and Romania. EA4 includes France, Germany, Italy, and Spain. AE = advanced European economies; EE = emerging European economies; TTF = Title Transfer Facility; WEO = *World Economic Outlook*.

In *Ukraine*, following a collapse of 30 percent in GDP in 2022, high-frequency indicators suggest that activity has stabilized early in 2023, and it is projected to remain broadly flat (Box 1). However, the war and the massive loss of social and economic infrastructure along with large outward migration creates uncertainty around the forecast.

In *Türkiye*, the powerful earthquakes in February came with severe human and material cost. The resulting disruption of economic activity will lower GDP growth this year, followed by higher growth supported by reconstruction activity next year (Box 2).

After contracting in 2022, *Russia's* GDP will grow slowly in 2023, still supported by last year's large acceleration in deficit-financed public spending. However, the medium-term outlook is for very low growth, as many links to the global economy remain severed and potential output is permanently reduced (Box 1).

Lower commodity prices and the normalization of supply disruptions will drive headline inflation down, but core inflation is projected to stay high for longer. Average headline inflation in 2023 is now forecast to reach 5.6 and 11.7 percent in *advanced* and *emerging European economies* (excluding *Belarus*, *Russia*, *Türkiye*, and *Ukraine*), respectively, a downward revision of 0.6 and 0.3

Figure 4. Europe: The Outlook
(Percent)

	Current Projection			Revision ²	
	2022	2023	2024	2023	2024
Real GDP Growth					
Europe	2.7	0.8	1.7	0.2	-0.3
Advanced European Economies	3.6	0.7	1.4	0.1	-0.3
Euro Area	3.5	0.8	1.4	0.3	-0.4
Emerging European Economies ¹	4.4	1.1	3.0	-0.5	-0.4
CPI Inflation (avg)					
Europe	15.2	10.4	6.3	-0.2	1.2
Advanced European Economies	8.4	5.6	3.0	-0.6	0.1
Euro Area	8.4	5.3	2.9	-0.4	0.2
Emerging European Economies ¹	14.1	11.7	5.5	-0.3	1.4

Source: IMF staff calculations.

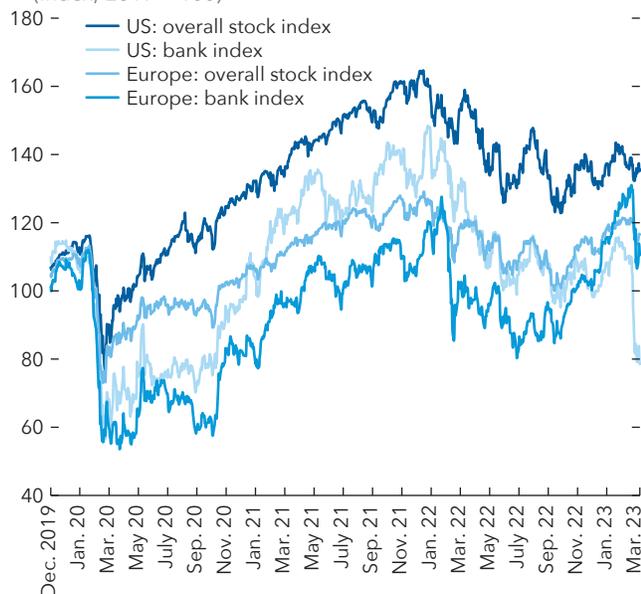
Note: CPI = consumer price index.

¹Excludes Belarus, Russia, Türkiye, and Ukraine.

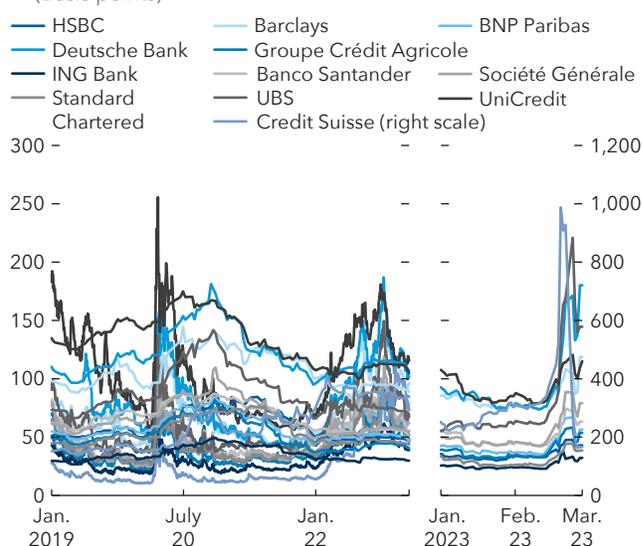
²Revision with respect to October 2022 *Regional Economic Outlook: Europe*.

Figure 5. Financial and Banking Stress**1. Overall and Banks Equity Prices**

(Index; 2019 = 100)

**2. Five-Year European G-SIBs CDS Spreads**

(Basis points)



Sources: Bloomberg Finance L.P.; and IMF staff calculations.

Note: CDS = credit default swap; G-SIBs = global systemically important banks.

percentage point from the October 2022 *Regional Economic Outlook: Europe*, respectively. In contrast, core inflation is projected to increase from 5.1 percent in 2022 to 5.6 percent on average in 2023 in *advanced European economies* and from 10.6 percent to 12.5 percent in *emerging European economies* (excluding *Belarus, Russia, Türkiye, and Ukraine*) before declining to 3.1 and 7.0 percent in 2024, respectively. Across the region, the cooling of core inflation is predicated on the ongoing policy tightening and its lagged impact on activity, the pass-through from lower energy and food prices, and the continued easing of supply-chain bottlenecks. However, largely reflecting lower current inflation rates, smaller second-round effects on wages, better anchored inflation expectations, and lower exchange rate depreciation, inflation in *advanced European economies* is projected to return to target by 2025 or 2026, earlier than most *emerging European economies*.

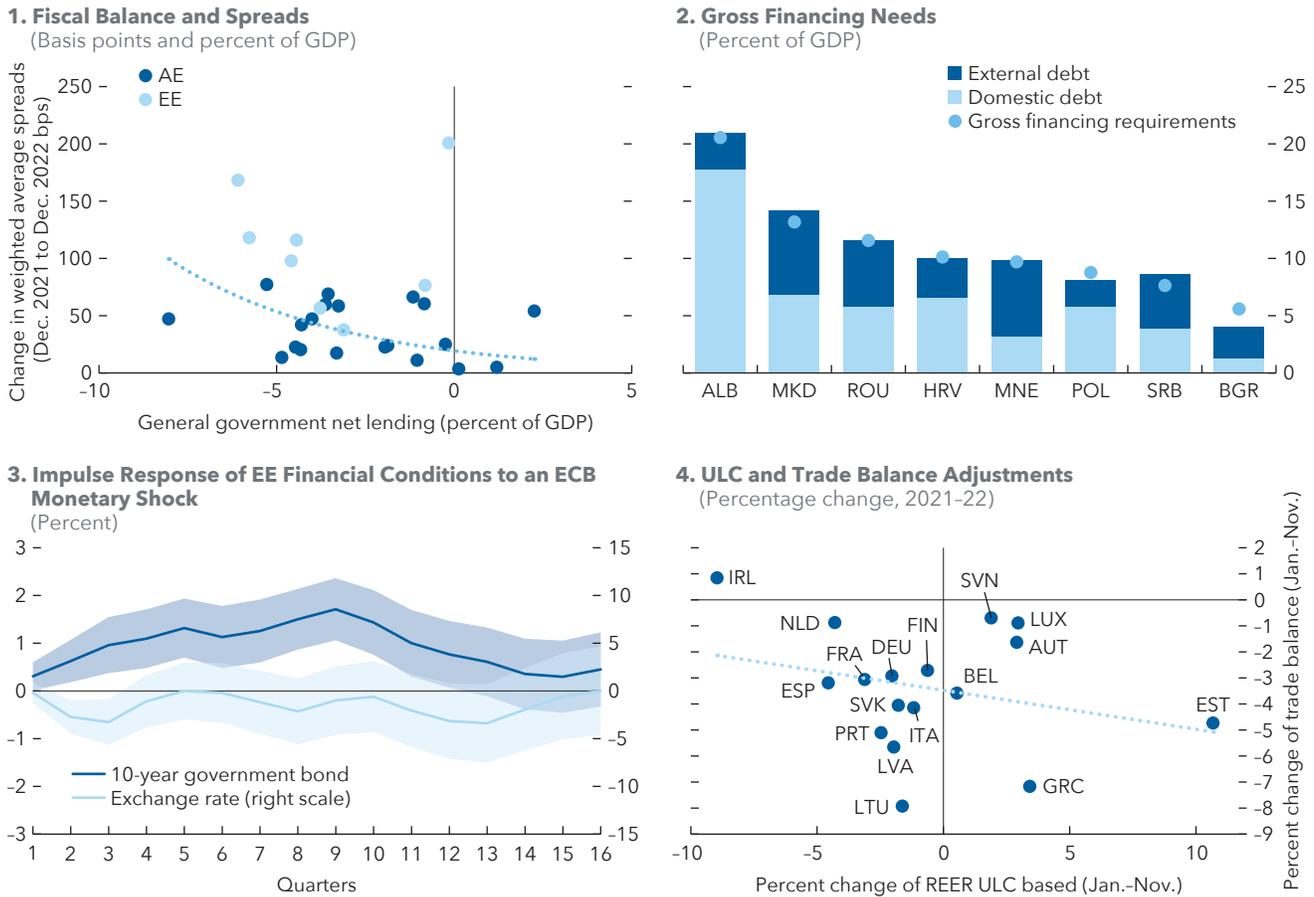
Growth and Inflation Risks Continue to Cloud Europe's Outlook

The baseline forecast comes with severe and interconnected risks. New financial sector concerns have emerged, and failure to contain financial stability risks could lead to crisis and lower growth. While tighter macroeconomic policies could add to financial sector worries, failure to act forcefully now to bring down inflation, as assumed in the baseline, could mean higher inflation later, forcing greater-than-projected policy tightening going forward. At the same time, a resurgence of energy prices or fragmentation risks could bring lower growth and higher inflation, further complicating the task of European policymakers.

Financial Sector Risks

Risks of financial distress among banks and nonbanks have come to the fore. While comfortable average capital and liquidity buffers among banks in the *euro area* and the *United Kingdom* provide a cushion (Box 6), the recent banking sector problems illustrate how liquidity strains and financial stress can surface abruptly in an environment of higher interest rates after 15 years of highly accommodative monetary policy (Figure 5). Another stress episode could erode buffers, especially among banks with weaker fundamentals, and sharply tighten credit and

Figure 6. Asymmetric Rise in Sovereign Spreads



Sources: Global Data Source; Haver Analytics; Monetary and Capital Markets Department, Sovereign Spread Monitor; IMF, World Economic Outlook database; and IMF staff calculations.

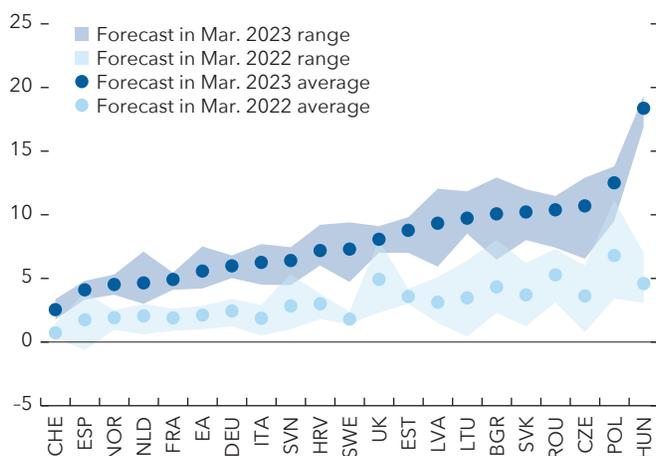
Note: In panel 1, weighted average spread is the par value-weighted spread across all of a country's bonds with more than one year remaining maturity. In panel 3, shaded areas refer to confidence bands around estimates, and the x-axis reflects the quarter after the initial shock. Country abbreviations are International Organization for Standardization country codes. AE = advanced European economies; bps = basis points; ECB = European Central Bank; EE = emerging European economies; REER = real effective exchange rate; ULC = unit labor cost.

broader financial conditions. The ensuing deterioration in the outlook and increase in lending rates would likely reduce asset quality and raise provisioning needs, further affecting bank balance sheets and tightening credit conditions, which in turn would further weaken activity. Such a scenario could also trigger capital outflows and hit *emerging European economies* disproportionately. Several NBFIs with long-dated asset portfolios, including some pension funds, have been under acute deleveraging pressures that could intensify should long-term interest rates rise significantly further. These and other maturity risks would be amplified if inflation proves to be more persistent than markets expect, triggering a sudden downward adjustment in bond prices.

Disorderly corrections in real estate markets could occur even if broader financial distress is avoided. A housing market correction is already underway in some European countries—for instance, in the *Czech Republic*, *Denmark*, as well as in *Sweden* where house prices declined more than 6 percent in 2022. House price declines could accelerate if markets reprice inflation risks and financial conditions tighten more than expected. These price declines would have adverse effects on household and bank balance sheets (Box 3).

Figure 7. Distribution of Inflation Expectations for 2023

(Percent, Consensus Forecasts)



Source: Consensus Forecasts.

Note: Inflation expectations is the average year-over-year inflation produced by Consensus Forecasts. Country abbreviations are International Organization for Standardization country codes.

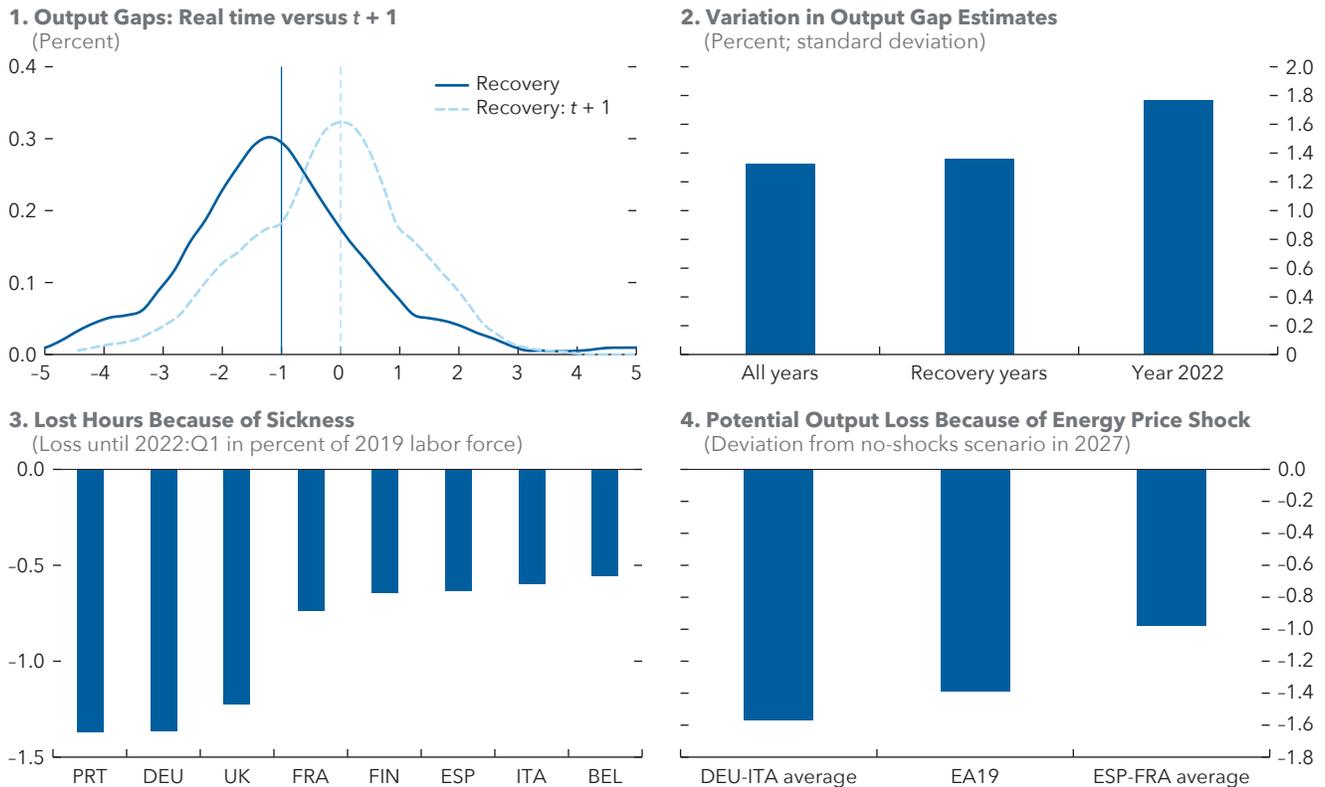
more remote risk is a resurgence of acute sovereign bond yield pressures within the *euro area*. Finally, the energy price shock triggered major inflation divergence across countries, resulting in large real effective exchange rate shifts and trade balance adjustments across member economies (Figure 6, panel 4). If underlying inflation divergence persists, external imbalances could widen, and, over time, risks of bond yield spikes in economies with weaker fundamentals could increase.

Inflation Risks

High and divergent inflation could persist for longer than expected if energy prices were to spike again, inflation expectations drifted upward, or wage growth picked up more than projected. Any combination of factors—such as a harsh 2023–24 winter, insufficient demand compression, the discontinuation of remaining Russian gas flows, or a pickup of liquified natural gas demand from China—could lead to renewed energy price spikes. Despite some recent decline, expected inflation for 2023 is higher than it was a year ago, and it is also subject to a wide divergence in views (Figure 7). Furthermore, a new bout of inflation could surface if wage- and price-setting behavior became more backward-looking, with workers and firms seeking greater compensation for recent price and wage increases, respectively (as described in Chapter 2 of the October 2022 *Regional Economic Outlook: Europe*). Minimum wage hikes tracked core inflation closely last year, with risks that such increases could propagate through the pay scale, increasing inflation persistence.

Another factor pointing to inflation risks is evidence that *economic slack in many European economies may be even smaller than estimated* after back-to-back shocks left long-lasting scars on Europe's productive capacity (Li and Di Bella, forthcoming). Historically, economic slack has been often overestimated in real time, particularly during recovery periods (Figure 8, panels 1 and 2). The confluence of supply and demand shocks makes it even harder to assess slack at the current juncture. This raises a risk that many European economies might be running to a greater extent above capacity than currently estimated for this *Regional Economic Outlook: Europe*. For instance, long COVID-19 is thought to have durably increased the number of workdays lost because of sickness which, along with other factors (such as shifting worker preferences away from working long hours after COVID-19), affects labor supply negatively (Figure 8, panel 3). Moreover, futures prices suggest that long-term European energy prices may be up to 40 percent higher than before the pandemic, reflecting the shift to liquified natural

Finally, an asymmetric rise in sovereign bond yields amid broader market stress could reignite economic divergence across European economies. Looking across Europe, sovereign spreads in countries with weaker fiscal positions have risen in both *advanced* and *emerging European economies*, with particularly large increases in the latter (Figure 6, panel 1). Debt composition and large financing requirements add to vulnerabilities in several *emerging European economies* (Figure 6, panel 2). A spike in global risk aversion or other sources of broad market stress could have a sizable impact on the sovereign spreads and exchange rates of these economies. Spreads could also be affected by faster-than-expected ECB monetary tightening (Box 4). For example, based on historical evidence, a 100 basis point ECB monetary policy rate surprise might raise 10-year government yields in *emerging European economies* by more than 150 basis points, with larger effects in economies with weaker fundamentals (Figure 6, panel 3). A likely

Figure 8. Risk Factors: Energy Prices and Geopolitical Fragmentation

Sources: Eurostat; IMF, World Economic Outlook database; and IMF staff calculations.

Note: In panel 1, recovery is a three-year period after the individual country's recession; distribution shows the kernel density of the output gap difference between the real-time and the ex post estimates. In panel 3, excess sickness leave is estimated based on the overall working hours deficit (usual versus actual hours) relative to the pre-pandemic level in 2019; the proportion of sickness leave in the overall deficit is proxied from French administrative data on sickness declarations. In panel 4, the no-shock scenario assumes an absence of price shocks; the energy price shock scenario corresponds to the commodity price path forecast in the October 2022 *World Economic Outlook*. The estimates are based on an endogenous technical change model with energy as an input, allowing for energy efficiency to increase in response to price changes (see Lan and others, forthcoming). Country abbreviations are International Organization for Standardization country codes. EA = euro area.

gas and other adjustments. European firms have improved energy efficiency in response to higher prices, but persistently higher energy prices reduce potential output, especially in the near term when fixed costs make substitution away from fossil fuels harder. While the adoption of energy-saving technologies over the medium term is more feasible, the average potential output decrease because of higher medium-term energy prices is assessed at more than 1 percentage point in most European countries, reaching more than 1.5 percent on average in *Germany* and *Italy*, for example (Figure 8, panel 4).³

Fragmentation Risks

Rising geopolitical fragmentation risks also cast a cloud on the disinflationary recovery projected in this *Regional Economic Outlook: Europe*. Trade fragmentation—as measured by the number of trade and foreign direct investment restrictions imposed on and by European countries—is on the rise (Figure 9), and Russia's war in Ukraine has increased economic and national security concerns within and outside Europe. These events have increased uncertainty and volatility in the short term while raising risks of a durable drag on growth over the medium term. Specifically, conflicts and weakened international cooperation could lead to a reconfiguration of trade and foreign direct investment, renewed waves of supply disruptions, technological and payment systems fragmentation,

³ If firms' energy efficiency improves less in response to higher energy prices—as would be the case if the pass-through from higher energy prices to end users were to be durably muted—than has been the case historically, such as in the aftermath of oil price shocks, medium-term output losses from the energy crisis would become larger.

rising input costs, financial instability, a fracturing of international monetary and financial systems, and productivity and output losses.

Policies: Acting Decisively Now to Avoid a Hard Landing Later

Policymakers are facing the tough task of taming persistent inflation while avoiding a recession—including by preserving financial stability. To succeed, macroeconomic, financial, and structural policies need to work in concert: (1) A tighter monetary stance is needed to bring inflation down decisively to central bank targets. Failure to do so would require even more contractionary macroeconomic policies later, making a harsh landing far more likely; (2) while monetary policy takes center stage in the fight against inflation, a more restrictive fiscal policy would help ease demand pressures and achieve disinflation at lower interest rates, which will help reduce risks to financial stability; (3) financial policies should focus on enhancing resilience to risks of higher interest rates, including liquidity strains, asset price corrections, and broader downturn risks; finally, (4) structural policies should ease growth-inflation trade-offs through labor market and other reforms that raise labor supply, and by implementing measures that strengthen energy security and demand efficiency, including by promoting the green energy transition.

Figure 9. EU Trade Restrictions
(Average number of new restrictions imposed and faced)



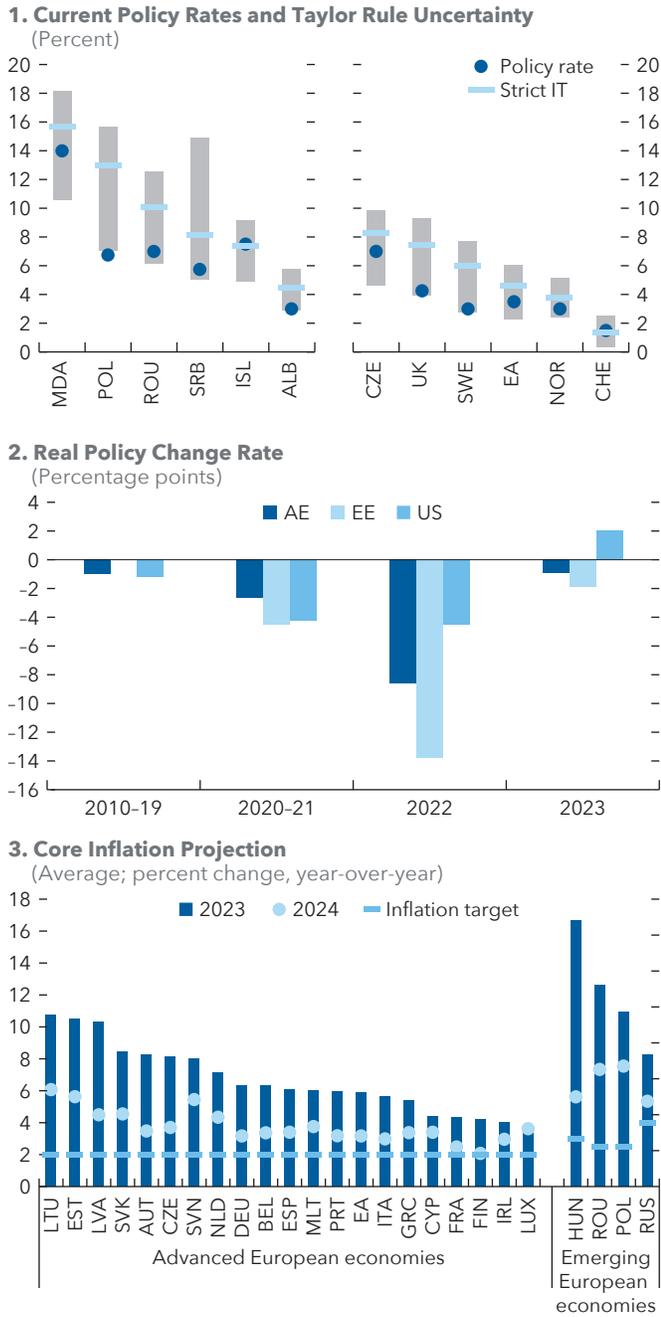
Sources: Global Trade Alert; and IMF staff calculations.
Note: EU = European Union; FDI = foreign direct investment.

Monetary Policy: Keeping a Tight(er) Stance for Longer

High and potentially more persistent than expected underlying inflation calls for tight monetary policy until core inflation is unambiguously on a path back to central bank inflation targets (Figure 10, panel 3). This approach helps mitigate second-round effects and keeps inflation expectations well anchored in the face of building wage pressures. Policy rates have increased significantly across the region but may still be too low to bring inflation down to targets in a timely fashion in many cases. Some central banks (mostly among *emerging European economies*) that started early have been early to slow or pause their policy tightening. In the *euro area*, although the cumulative increase in policy rates has been larger than in past tightening cycles, real rates based on current or one-year-ahead expected inflation remain low (Figure 10, panel 2). Where real rates are already high, but core inflation rates are not yet on a clear declining path, prematurely easing the monetary stance should be avoided. While evaluating the required degree of monetary tightening is a difficult task in times of heightened macroeconomic volatility, there are some indications that policy rates in a number of countries are at the lower end of commonly used benchmarks such as Taylor rules, suggesting that higher rates may be needed to rein in inflation in a timely manner (Figure 10, panel 1; Box 5).

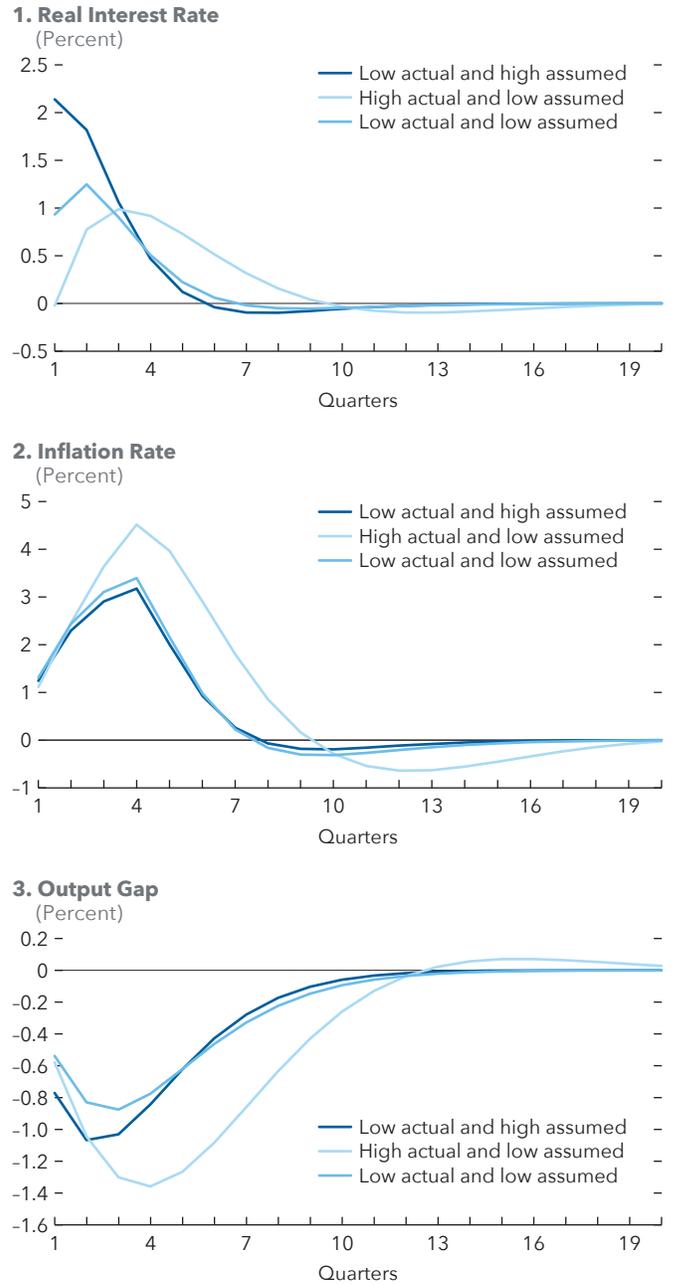
A tighter monetary stance is also desirable from a risk management perspective: if inflation persistence is uncertain, there are larger economic losses to be incurred from reacting too late versus reacting decisively early on, because underestimating persistence would entrench high inflation and force central banks to tighten later for longer, requiring a sharp recession to bring inflation back to target (Figure 11). Similarly, when the extent of (unobservable) economic slack is uncertain, monetary policy would be well advised to place more weight on observed inflation and labor market dynamics, both of which are observable and favor higher policy rates.

Figure 10. Monetary Policy: Keeping a Tight Stance for Longer



Sources: European Central Bank; IMF, World Economic Outlook database; and IMF staff calculations.
 Note: In panel 1, a hybrid Taylor rule is used; simulated values are computed using the October 2022 *World Economic Outlook* projections for headline inflation and output growth starting in 2022 (see Box 5 of this *Regional Economic Outlook* for more details). Country abbreviations are International Organization for Standardization country codes. AE = advanced European economies; EE = emerging European economies; EA = euro area; IT = inflation target; US = United States.

Figure 11. The Benefits of Monetary Policy Acting Sooner Rather than Later in Euro Area
(Responses to a cost shock)



Source: IMF staff calculations.
 Note: Optimal and robust monetary policy responses to a cost-push shock are derived using a simple New Keynesian model embedded with different levels of inflation persistence and imperfect knowledge from the central bank; based on forthcoming work by Luis Brandao-Marques, Roland Meeks, and Vina Nguyen.

Differing Paths Depending on Country Circumstances

Monetary policy paths will need to differ across countries depending on the extent of slack, inflation drivers and their persistence, and inflation risks. For the *euro area*, the current baseline assumes a terminal rate of about 3¾ percent, implying additional policy hikes ahead. The ongoing quantitative tightening (QT) will support this tighter stance while aiming to reduce the distortions stemming from the ECB's large financial market footprint. This can be achieved if QT is done in a predictable and gradual way. However, financial fragmentation—including a sharp divergence in sovereign borrowing costs—and broader financial stability risks call for caution and flexibility to change course if needed.

For the *United Kingdom*, monetary policy may need some further tightening to keep inflation expectations well-anchored and bring inflation back to target, though risks to inflation are now more balanced. Central banks in other *advanced European economies* (*Sweden, Switzerland*) would also need to calibrate carefully terminal rates, and how long the stance remains tight, to bring down inflation in line with the target.

Central banks in *emerging European economies* will have to maintain a monetary stance that will decisively contain further upward shifts in inflation expectations and avoid escalating wage-price dynamics, especially where real policy rates are low, labor markets remain tight, and nominal wage growth and associated risks of persistent inflation are already high (including *Hungary, Poland*). Depending on the circumstances, this may require more rate increases. Elsewhere, policymakers should avoid pausing rate hikes or reversing previous earlier tightening prematurely, even more so if this leads to exchange rate depreciations.

Monetary policy will have to adjust to changing data and conditions. For example, a less contractionary stance would be warranted if financial conditions such as bank lending standards tighten notably for nonmonetary policy-related reasons, including banking sector problems. While financial sector liquidity risks should be addressed primarily through central banks' well-established lender-of-last-resort role, a systemic financial crisis would require monetary policy to switch gears and ease as recession prospects would rise and expected inflation would fall. Other shocks would also warrant altering the course of monetary policy. For instance, renewed supply pressures, such as from energy price hikes, would call for additional tightening, especially where second-round effects and inflation persistence are high. Conversely, significantly faster cooling of underlying inflation because of a sharp slowdown in demand, greater pass-through from lower commodity prices, and subdued nominal wage growth would warrant less tightening. Communicating baseline paths and policy response functions to markets while preparing them for potential deviations in response to shocks would help set expectations and adequate rate pricing while allowing for flexibility in a credible and transparent manner.

Financial Policies: Reaffirming Financial Stability

Regulation and Supervision

Maintaining financial stability across markets, banks, and NBFIs will require close monitoring, strong supervision, contingency planning, and prompt corrective action, where needed. Regulators and supervisors should keep close watch on vulnerabilities in banks and NBFIs, including by stress-testing their balance sheets. In addition to household firms' balance sheet risks and their effects on banks, real estate risks, including in commercial real estate markets, warrant continued close monitoring. The recent episodes of banking sector stress also point to the importance of having contingency plans in place. In the European Union, extending bank resolution tools to small- and medium-sized banks and clarifying the availability of the Single Resolution Fund's resources would strengthen the supervisors' capacity to act. Ratifying the European Stability Mechanism's amended treaty would bolster the stability of the financial system by providing a backstop to the Single Resolution Fund. An agreement on a pan-European deposit insurance could further enhance the credibility of bank resolution arrangements. Finally, dealing with weak banks promptly should facilitate orderly exits of nonviable banks and ensure robust capital restoration plans for the viable ones.

Macroprudential Policies

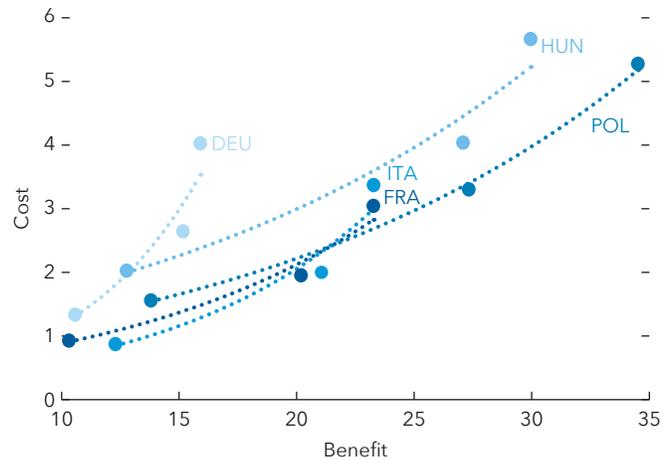
Sound macroprudential policies remain important to guard against financial stability risks, including those from housing market risks and rising household balance sheet vulnerabilities (Box 3). Maintaining the current macroprudential policy stance appears broadly appropriate, but with variation across countries. In countries where macro-financial imbalances are rising, an increase in buffers may be needed to preserve resilience, provided procyclical effects are avoided. Raising countercyclical buffers may be preferable to tightening borrower-based measures because the former increase banks' reserves to absorb losses and do not reduce credit as much, particularly if banks have enough capital headroom. By contrast, a tightening of borrower-based measures will have no impact on the materialization of immediate losses (because they apply only to new flows, which are typically lower in a downturn) and may unduly constrain credit growth. A sharp downturn causing widespread credit supply disruptions, or an abrupt house price correction, would warrant the immediate relaxation of capital-based tools. To avoid adverse macro-financial feedback loops, some cyclical borrower-based measures could also be eased if they have become too constraining, and there is enough macroprudential policy space.

Financial Policy Measures to Support Households

Governments' financial policy measures to help households cope with rising interest rates need to be well-designed and narrowly targeted. They should avoid forced conversions from flexible- to fixed-rate mortgages at below market rates and regulatory forbearance, which have gained ground in some *emerging European economies* over the past year. Such measures not only weaken transmission of policy rate increases to the economy but also delay loss recognition in banks' books, distort market signals, shift burdens *ex post* in a manner that increases moral hazard, and could undermine banking sector deepening. Targeted transfers to lower-income households are less distortive and more cost-effective ways to reduce risks of debt distress. This is particularly true in *advanced European economies* (such as *Germany*), where the cost-effectiveness of transfers to prevent household debt distress—as measured by the share of households saved from financial distress per percentage point of GDP spent—declines rapidly as support is broadened to include higher-income households (Figure 12).

Figure 12. Costs and Benefits of Alternative Policies to Support Households in an Adverse Scenario

(Percent of households shielded from financial distress versus cost of the policy in percent of GDP)



Sources: Eurostat; Household Finance and Consumption Survey microdata; and IMF staff calculations.

Note: The benefit of the policy is measured by the share of households shielded from financial distress. A household is in financial distress when the cost-of-living-adjusted debt-service-to-income ratio is equal to or higher than 70 percent. The cost of the policy is measured by the estimated fiscal expenditure as a share of GDP. The figure shows three policy interventions: (1) a broad targeting policy, (2) a medium targeting policy, and (3) a narrow targeting policy. For details, please see Valderrama and others 2023. Country abbreviations are International Organization for Standardization country codes.

Fiscal Policies: Taking Advantage of Recent Fiscal Windfalls to Consolidate at a Faster Pace

Some mild fiscal consolidation is projected over the 2023–24 period (Figure 13, panel 1), but a stronger and sustained effort is needed now in most countries. In *advanced European economies*, a meaningful fiscal consolidation is expected only next year. *Emerging European economies* are set to improve their fiscal balance more meaningfully in 2023, even if the adjustment comes after a significant loosening last year.

But across the region, the projected consolidation is less than projected in the October 2022 *Regional Economic Outlook: Europe*, partly reflecting the far-reaching support packages to counter the cost-of-living crisis adopted last fall. More is needed to support monetary policy in the fight against inflation, helping central banks achieve their objectives at lower interest rates, with positive spillovers for public debt service costs and financial stability. Taking a longer view, governments also need to pursue more ambitious fiscal consolidation to restore their ability to cope with large shocks of the magnitude Europe experienced during the pandemic and energy crisis.

Improving Policy Targeting to Rebuild Fiscal Space

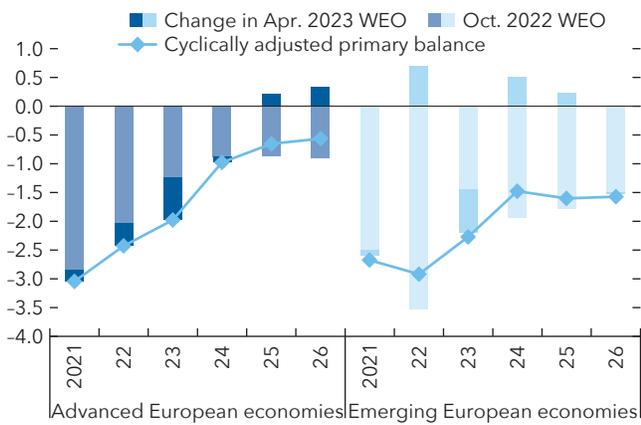
Recent fiscal windfalls strengthen the case for larger and faster fiscal consolidation. The sharp decline in energy prices should make it easier to consolidate public finances. For example, in *Denmark* and *Finland*, fiscal savings from lower energy prices compared with the October 2022 *World Economic Outlook* may be about 0.1 percent of GDP, whereas in *Montenegro* and *Slovenia*, they could reach about 0.5 percent of GDP. Another recent fiscal windfall has been the positive impact of high inflation on tax revenue. Governments' fiscal policy choices need to factor in that such revenue buoyancy is not projected to last, and interest burdens will rise over time as governments roll over maturing debt and fund new deficits at higher interest rates (Figure 13, panels 2 and 3).

Better targeting energy relief measures could contribute to fiscal adjustment while continuing helping those who need such support the most. The abrupt surge in energy prices in 2022 prompted European policymakers to assist households and firms through transfers and subsidies and by delaying the pass-through to domestic prices. In many countries (such as the *Baltics* and *Hungary*), support was largely untargeted (Figure 13, panel 4). In some cases (for example, *France* and *Spain*), limited pass-through of higher energy prices partly muted the reduction in energy demand. Amid lower energy prices, fiscal policy should unwind support that is no longer needed, target any remaining measures better, and allow domestic prices to reflect price signals. Direct transfers should reach only the most vulnerable, and support should be coordinated across countries to avoid unwarranted asymmetries that could hinder international competitiveness.

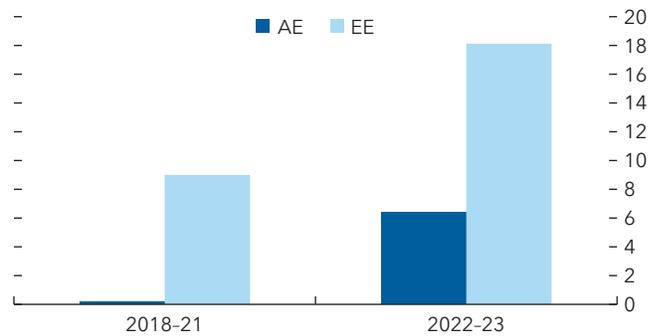
Public budgets also need to make room for longer-term spending pressures from pensions, health, energy security, and the green transition. Announcing clear, credible, and, for some countries, more ambitious medium-term adjustment paths would ease risks and financing pressures. Many countries face immediate and likely lasting budgetary pressures from higher military spending. In *Türkiye*, reconstruction needs following the earthquakes will require sizable investment to rebuild buildings and infrastructure. Across much of Europe, significant opportunities remain for growth-enhancing tax and expenditure reforms, such as broadening tax bases or shifting taxation away from labor toward less distortive taxes on property and wealth. Budget pressures from Ukrainian refugee inflows will remain a challenge for the main recipient countries (the *Czech Republic*, *Estonia*, and *Poland*, among others) for as long as the war continues. Public expenditures to cover immediate needs such as social services or health are expected to decline gradually, but other costs related to social and physical infrastructure (schools, hospitals, and housing) are likely to be more persistent. Increased tax revenues from continued integration of refugees into host countries' labor markets will provide some offset.

Figure 13. Fiscal Developments**1. Primary Balance Projections**

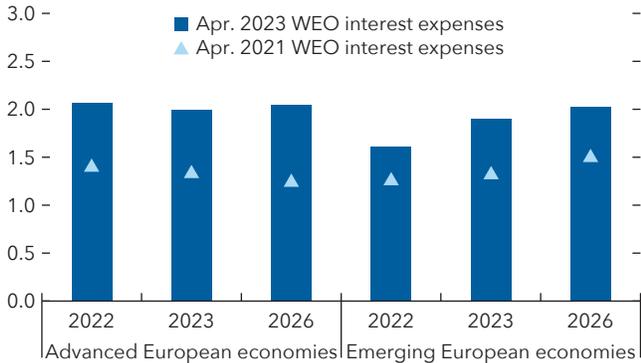
(Percent of potential GDP, 2021–26)

**2. General Government Taxes on Goods and Services**

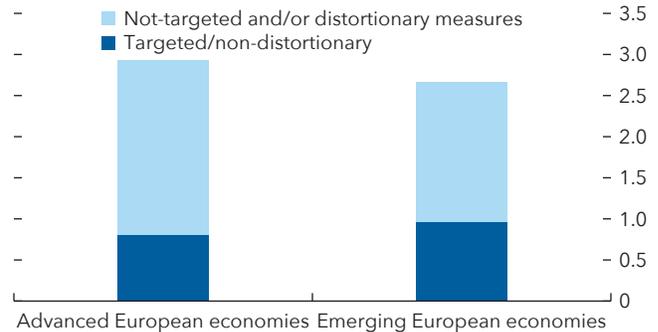
(Year-over-year percent change)

**3. Interest Payments Projections**

(Percent of GDP)

**4. Targeting of Household Support Measures**

(Percent of GDP)



Sources: IMF, World Economic Outlook database; and IMF staff calculations.

Note: In panel 4, it is the cumulative fiscal cost over 2021–23. Country abbreviations are International Organization for Standardization country codes. AE = advanced European economies; EE = emerging European economies; WEO = *World Economic Outlook*.

Windfall taxes imposed ex post and singling out particular sectors—as already enacted or currently planned in some countries in the energy and banking sectors—should be avoided. Where they have been introduced, they should remain strictly temporary and their effects should be carefully monitored to minimize any adverse effects on investment and financial stability risks.

Tailoring Fiscal Policy Stance to Country Circumstances

Countries with elevated debt-to-GDP ratios, such as a few *euro area* economies, are in greatest need of further consolidation in 2023. Debt ratios are projected to decline somewhat in the medium term in low-debt *advanced European economies* but are projected to remain broadly stable in their high-debt counterparts. In general, public debt interest burdens as a share of GDP will rise more in *emerging European economies*, where the rise in sovereign spreads has been larger and the tenor of debt is shorter. Countries with limited fiscal space should cut deficits decisively in 2023, particularly where labor markets remain resilient and economic slack limited. Countries where fiscal space is more ample can afford a slower consolidation pace (for example, *Latvia*). In the European Union, the European Council's recent endorsement of the broad principles of the EU fiscal governance reform is an important step to provide a strong fiscal framework that relies on a risk-based approach and

medium-term fiscal plans while keeping the 3 and 60 percent of GDP reference values for fiscal deficits and public debt, respectively. A swift agreement on a new framework—including clarification of its implementation—would help support a sustained consolidation, tailored to country-specific circumstances.

Fiscal policy should support monetary policy in bringing inflation back to target in most scenarios. The consolidation path would need to be adjusted if major adverse shocks significantly reduced activity and inflation. In such a scenario, countries with available fiscal space could allow automatic stabilizers to work and slow the pace of consolidation to smooth the weakening of aggregate demand and support the most vulnerable as needed. Economies with limited fiscal space would need to offset any additional support by reducing other spending—except for harmful reductions in health and education spending and in public investment—or by increasing less distortive and progressive taxes, such as those on property. By contrast, smaller temporary demand shocks, or long-lasting adverse supply shocks, would not warrant delaying fiscal consolidation plans, especially in economies where greater-than-projected consolidation would be desirable under the baseline projection.

Structural Policies: Easing Growth-Inflation Trade-offs by Enhancing Labor Supply and Energy Security

At the current juncture, structural reforms should prioritize areas where they can ease growth-inflation trade-offs most quickly and effectively. Beyond pursuing long-standing reform needs critical to raising Europe's productivity growth and reduce scarring from successive crises, two priorities stand out: increasing labor supply by enhancing labor force participation and worker job transitions, and improving energy security and consumption efficiency, including by speeding up the green transition.

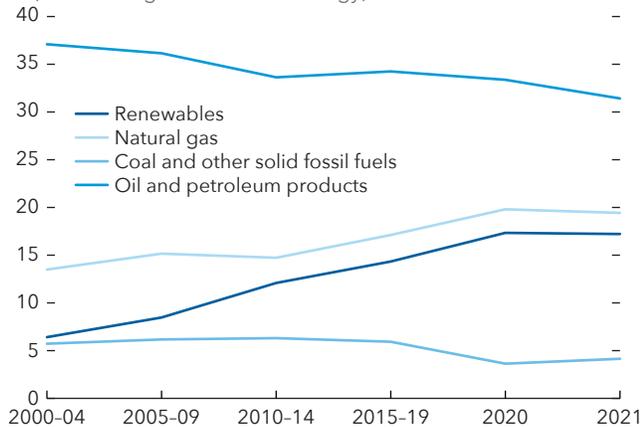
Raising labor supply and improving the matching between workers and vacancies could help ease labor market tensions amid demographic pressures. In many countries, relevant reforms in this regard include enhancing childcare policies and cutting second-earner taxation to raise female labor force participation, reducing disincentives to continued work for older workers through pension reforms, scaling up and better designing active labor market policies, and easing employment protection legislation for regular workers relative to temporary workers. Although priorities vary across countries, many of these reforms would be particularly beneficial in several *euro area* economies and in *emerging European economies*. In economies hosting large refugee populations, several of these reforms would also speed up labor market integration—for example, by providing language training as part of targeted active labor market policies.

Speeding up the green transition would support Europe's energy security and prosperity in the medium term. The European Commission estimates that achieving Europe's emissions-reduction goals will require additional investment of some €3–4 trillion through 2030. Here the European Union's REPowerEU plan helpfully proposes enhancing long-term energy efficiency measures, diversifying energy supplies, and supporting the development of green technologies. To achieve these objectives, the European Union has made €225 billion in loans available under the Recovery and Resilience Facility, with additional grants and voluntary transfers from different sources. Continued progress on implementing Recovery and Resilience Plans will also help. However, about one-third of countries are lagging behind their plans, about half of which are experiencing significant delays in general (*Hungary, Poland*) or on selected significant reforms (*Belgium, Bulgaria, Romania*). Completion of the Capital Markets Union could stimulate investment and growth in Europe, including in support of the European Union's climate goals.

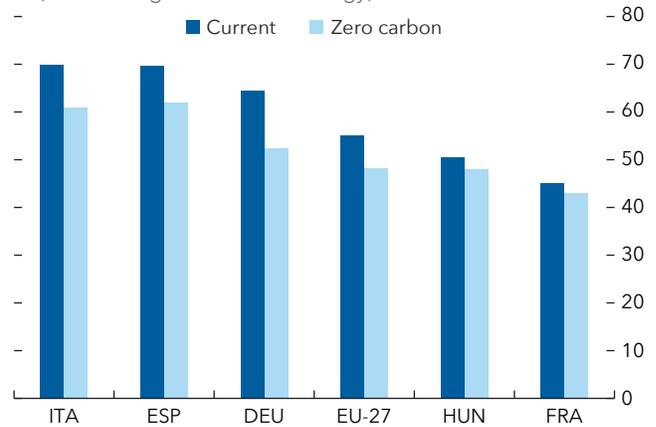
If well-designed, the European Union's proposed Green Deal Industrial Plan could complement the bloc's many ongoing initiatives to achieve climate neutrality while preserving the European Union's competitiveness as a green investment location. A constructive European response to industrial policies and subsidies from outside Europe should seek to protect competitiveness while minimizing trade distortions and pursuing broader aims such as speedy decarbonization and development policy goals. As the European Union fleshes out the details

Figure 14. Energy Security and Green Transition**1. Net Fossil Fuel Imports and Renewables in the European Union, 2000-21**

(Percent of gross available energy)

**2. Energy Import Dependence under Current and Zero Carbon Power Generation Mix**

(Percent of gross available energy)



Sources: International Energy Agency; and IMF staff calculations.

Note: Country abbreviations are International Organization for Standardization country codes. EU = European Union.

of the proposal, it will be important for it to keep working cooperatively with other countries committed to the green transition and ensure that any subsidies to green industries are limited in scope and well-targeted and minimize distortions to international trade and the single market.

Enhancing energy security will require significant additional efforts both to expand renewables but also to strengthen energy efficiency. Renewable deployment needs to double from over its 2000-21 average speed to achieve the European Union's target for the share of renewables in final energy consumption of 42.5 percent. The timely implementation of policies incentivizing and enabling such investment are critical, including subsidies and simplified procedures for utility-scale renewable generation. On its own, however, a rising share of renewables does not necessarily translate into major improvements in energy security. In the past two decades, the share of net gas imports (in total gross available energy) rose along with the European Union's share of renewables, as gas substituted for coal and was also used for other purposes, including heating (Figure 14, panel 1). In addition, while fully decarbonizing the power sector would reduce dependence on imported fossil fuels, this decline would be modest (Figure 14, panel 2). Other complementary policies that cover all sources of fossil fuel energy consumption will be needed to reduce dependence more decisively. These can include targeted measures, such as curbing the extensive use of gas for heating by incentivizing the use of heat pumps. They should also include broad-based measures, such as expanding the coverage and raising the price of carbon in Europe, including by continuing to expand and tighten the European Union's emission trading program.

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Box 1. Recent Economic Developments in Russia and Ukraine

Ukraine

Russia's invasion of Ukraine led to a contraction of Ukraine's GDP of approximately 30 percent in 2022.

Russia's invasion has resulted in a significant destruction of infrastructure, damage to capacity in the agricultural and metals sectors, and labor supply disruption due to loss of life and migration. About 35 percent of the population fled their homes, and the World Bank has assessed that the poverty rate increased fivefold to about 20 percent since the war started. Support from the international community has been crucial in helping to preserve macroeconomic stability, while sustaining essential health and education services, payments for pensions, public sector wages, and social programs for the vulnerable.

The baseline projection is for GDP to remain about flat in 2023. The economy has so far adapted to power outages, and high-frequency indicators point to an incipient pickup in activity that should continue throughout the year, assuming no significant escalation in combat. An increase in government expenditures is expected to support demand, but still weak private investment and net exports will remain a drag on growth—with the current account deficit projected to reach \$6.5 billion, and goods exports declining another 20 percent after their one-third drop in 2022. The continued export decline reflects (1) lost or impaired productive capacity in the metals and minerals industries, given continuing challenges on power and logistics; and (2) headwinds for Ukraine's key agricultural sector due to a 40 percent drop in harvest volumes in 2022, leaving less inventory to ship in 2023. Ukraine's import demand is expected to grow modestly, reflecting weak consumption versus a need to rebuild inventories, especially of natural gas for the next heating season, as well as imports for essential repairs.

Costs for rebuilding Ukraine's economy are substantial. War developments could disrupt economic activity, deteriorate the fiscal and external outlooks, and intensify financial and inflationary pressures. Bilateral and multilateral support will continue to be required for urgent repairs to energy infrastructure, roads, bridges, housing, schools, and hospitals to ensure that basic services can be delivered. Moreover, sufficiently large and concessional support will need to be sustained in the medium term to rebuild social and economic infrastructure and strengthen incentives for migrants to return home. In addition, structural reforms—including those in pursuit of EU accession—to upgrade regulatory frameworks, support the rule of law, and encourage market competition could boost productivity, trade, and Ukraine's recovery.

Russia

Russia's economy has so far proven to be more resilient to sanctions than many observers initially expected. After a sharp drop in the second quarter of last year, the economy bounced back strongly in the third and fourth quarters, limiting the 2022 drop in output to 2.1 percent. The momentum from the second half of last year is carried over to this year, with growth projected at 0.7 percent. A large improvement in the terms of trade and resilient oil export volumes in the course drove oil and gas revenues to record highs and supported the economy in 2022. Russia's ability to redirect crude exports from sanctioning to nonsanctioning countries is confirmed by independent, nonofficial data, while gas export revenues were also high despite the sharp drop in volumes. The sharp rise in government, including defense-related, spending in the second half of the year provided a further boost to GDP of about 4 percent of potential GDP. With sanctions severely curtailing imports from Western economies, the current account surplus rose to a record \$227 billion.

Prepared by the IMF Ukraine and Russia teams.

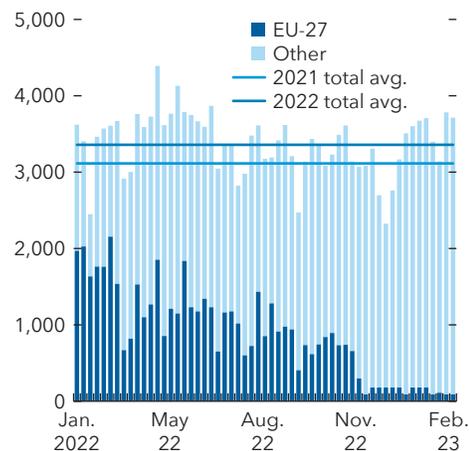
Box 1. (continued)

The outlook, however, shows pressures building up. Staff forecasts show a sharp decline in fiscal revenues in 2023, mainly as a result of lower oil and gas prices. On December 5, 2022, the European Union’s crude oil import ban and a price cap of \$60 per barrel on exports to third countries came into effect, followed on February 5, 2023, by an additional import ban and price cap on oil products. While it is too early to assess the impact of the sanctions on oil products, the price cap on crude has not led to a decline in Russian oil volumes so far, but it has increased the price discount. Combined with the sharp decline in gas prices projected for this year, oil and gas revenues are therefore set to fall far below last year’s levels. This means that the authorities will have to either curtail fiscal spending sharply or find ways to finance significantly higher deficits.

Staff have revised down substantially the estimate of potential growth in the Russian economy, to less than 1 percent per year. This reflects, among other factors, the isolation triggered by trade and financial sanctions, curtailed access to advanced technology and know-how, and a substantial loss in human capital. As a result, Russia’s output in 2027 is projected to be about 8 percent lower than forecasted prior to Russia’s invasion of Ukraine. Such low potential growth would also mean that Russia’s per capita income levels would no longer converge toward those of richer countries and could even fall further behind.

Box Figure 1.1. Russia: Crude Exports, All Destinations

(Daily average per week, KBD)

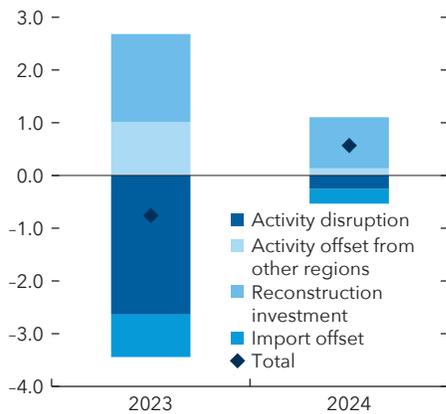


Sources: Kpler; and IMF staff calculations.

Note: EU = European Union; KBD = thousand barrels per day.

Box 2. Türkiye: The Macroeconomic Impact of the Recent Earthquakes

Box Figure 2.1. Türkiye: Contributions to Estimated Growth Impact from Earthquakes
(Percentage points)



Source: IMF staff calculations.

The human and physical toll of the earthquakes has been high. Tens of thousands of lives have been tragically lost, and many livelihoods and homes compromised, after powerful earthquakes struck Türkiye and Syria in February. The Turkish authorities estimated the total financial burden from this disaster at \$104 billion (11 percent of 2022 GDP).¹

The public sector will likely bear most of the cost of crucial recovery and reconstruction efforts. While support from the international community and private investment will help address some of the reconstruction and relief needs, the burden on the public sector will likely be large. The final increase in the general government deficit, however, might not reflect the full cost of reconstruction because of possible quasi-fiscal operations through the state-owned housing agency and the recently announced off-budget reconstruction fund, and because offsetting measures are possible, as seen following previous earthquakes.² Taken together, staff's baseline assumes that the earthquakes will add a combined 2.5 percent of GDP to the fiscal deficit in 2023-24. While

public debt remains low and reconstruction financing needs appear manageable, a sharp rise in domestic borrowing could increase banks' sovereign exposure and weigh on their performance.

Reconstruction will moderate the adverse effect on growth. While highly uncertain, the overall growth impact from the earthquakes will crucially depend on the pace of reconstruction, which will determine both the investment boost to growth and the speed with which economic activity normalizes. Staff's baseline includes a 0.8 percentage point drag on growth in 2023 and a 0.6 percentage point boost in 2024. These estimates assume that reconstruction spending will be frontloaded. They also reflect the affected region's relatively small share in GDP; the initial activity shortfall in affected provinces; and a partial growth offset from non-affected regions, driven by some reallocation of displaced workers and increased use of industrial spare capacity. Staff's baseline also includes stronger-than-expected activity pre-earthquakes.

Spillovers from the earthquakes are also expected to widen the current account deficit and to pose upside risks to already-high inflation. Higher imports to meet reconstruction needs and a temporary reduction in exports from affected provinces are expected to slow, by about 1.3 percentage point of GDP, the projected improvement in the current account deficit this year. This will only be partly offset by transfers from abroad as a result of announced international support.

Prepared by Silvia Domit.

¹ The total financial burden amounts to 9 percent of GDP when using as reference the authorities' 2023 GDP forecast. The estimate includes emergency spending, debris management, insurance costs, GDP losses from activity disruption, and reconstruction to modern standards.

² See Bibbee and others (2000).

Box 3. Risks to Housing Markets and Household and Bank Balance Sheets in Europe

Real estate markets show growing signs of overvaluation across Europe.

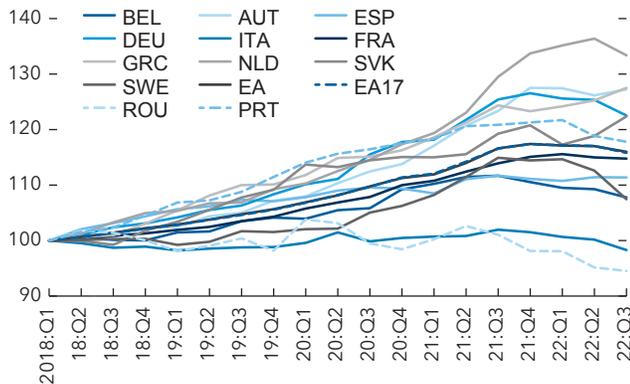
Real house prices have doubled since 2015 in the *Czech Republic, Hungary, Iceland, Luxembourg, The Netherlands, and Portugal*. Since the pandemic, the divergence between house prices and income, and between house prices and rents, has widened further. Price-to-income ratios currently stand at more than 30 percent above their long-term trends, while price-to-rent ratios also far exceed their historical norms, including in parts of northern Europe and *emerging European economies*. Similarly, empirical models linking house prices to their fundamental drivers point to an overvaluation of 15-20 percent in most European countries. Therefore, with mortgage rates still on the rise and real incomes dented by inflation, house prices have been declining recently in many markets (Box Figure 3.1).

Rising living costs and mortgage rates are stretching household balance sheets, which could deteriorate further if additional shocks hit. The share of households that could struggle to afford basic expenses (food, utilities, rents, debt repayments) is likely to increase by 10 percentage points in 2023, accounting for about 25 percent of mortgage debt. Under adverse scenarios featuring higher living costs and mortgage rates, about 45 percent of households—and more than 80 percent of lower-income ones—could be stretched financially, holding more than 40 percent of mortgage debt and 45 percent of consumer debt (Box Figure 3.2).

Impacts on bank balance sheets should be generally contained, but the picture would be bleaker under a combination of

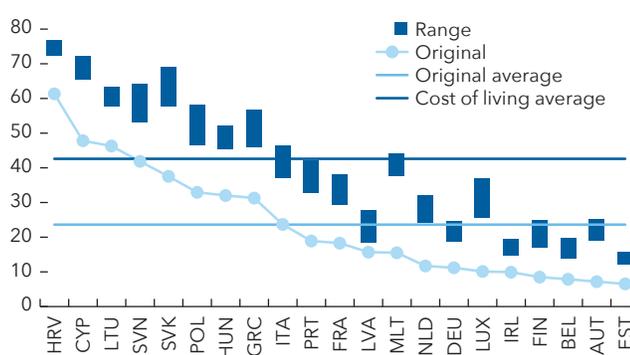
Box Figure 3.1. Europe: Evolution of Real House Prices

(Selected countries, 2018:Q4 = 100)



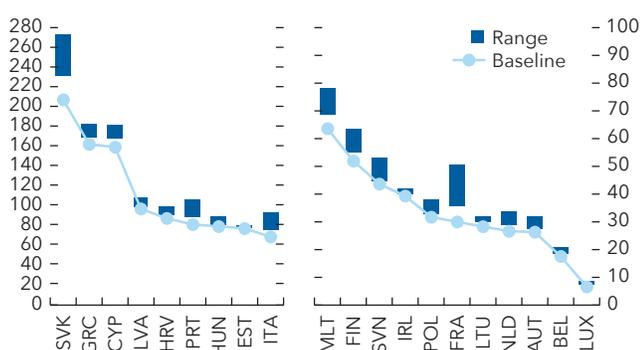
Box Figure 3.2. Europe: Mortgage Debt at Risk

(Percent)



Box Figure 3.3. Europe: Bank Capital Depletion from Household Balance Sheet Stress Scenarios

(Basis points)



Sources: Eurostat; Household Finance and Consumption Survey microdata; and IMF staff calculations.

Note: Country abbreviations are International Organization for Standardization country codes. EA17 excludes Croatia, Cyprus, and Malta from the euro area.

Prepared by Laura Valderrama.

Box 3. *(continued)*

shocks, including a major house price correction. Under the baseline (Common Equity Tier 1), capital depletion from rising household debt default would not exceed 100 basis points in most countries, but a 20 percent downturn in the housing market would push up losses into the 100–300 basis point range, with southern and eastern European countries affected most severely (Box Figure 3.3). Such losses could lead to tighter credit standards, increasing the chances of adverse macro-financial feedback loops among bank balance sheets, housing (and other asset) prices, and the real economy.

Box 4. Spillovers of European Central Bank Monetary Policy on Emerging European Economies

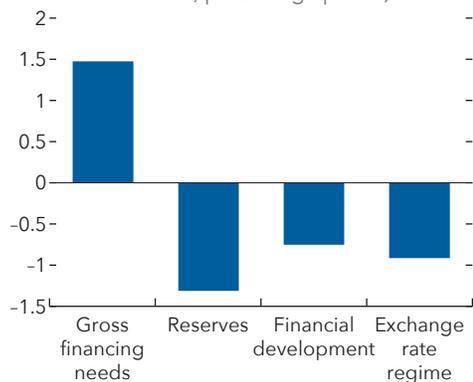
Emerging European economies experienced exchange rate and bond yield pressures when expectations of future ECB monetary tightening shifted significantly in the summer of 2022. Capital outflows were accompanied by currency depreciations and increases in borrowing costs. Bond yields rose amid rising policy rates and risk premiums. Countries with funding constraints and sizable trade deficits financed by foreign currency-denominated debt were more exposed (for example, *Romania* and *Serbia*) (Box Figure 4.1, panel 1).

Recent spillover patterns are confirmed by an analysis of historical ECB tightening episodes. Based on local projection methods for the period from the first quarter of 1999 through the third quarter of 2022, ECB monetary tightening surprises are found to have increased *emerging European economies* government bond yields more than one to one, and also to have generated sizable increases in sovereign spreads and depreciations in domestic currencies. These financial spillovers also had a substantial impact on domestic output, which decreased following a contractionary monetary policy shock from the ECB, reaching a trough after about 10 quarters (Box Figure 4.1, panel 2). More flexible exchange rate regimes and strong fundamentals—reflected in greater domestic financial market development, stronger reserve cushions, and lower public gross financing needs—tended to mitigate these spillovers.

Box Figure 4.1 Impact of ECB Monetary Tightening on Emerging European Economies

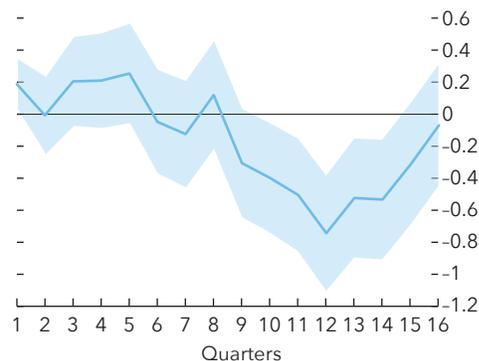
1. Impact on 10-Year Government Bond Yield

(Difference in impact of 100 basis point ECB monetary tightening shock between countries with high and low values of fundamentals, percentage points)



2. Impact on Domestic Output

(Impact of one-standard-deviation ECB monetary tightening shock, percent)



Source: IMF staff calculations.

Note: Columns in panel 1 show the estimated differential impact of the 100 basis point ECB monetary policy tightening in the summer of 2022 for high and low values of various fundamentals mentioned on the x-axis, where the exchange rate regime bar refers to the relative difference between floating and fixed exchange rate regimes. Panel 2 shows the impulse response of (the natural logarithm of) real GDP to a one-standard-deviation ECB monetary tightening shock, based on quarterly data for 16 countries during the first quarter of 1999 through the third quarter of 2022. The shaded area indicates significance at the 90 percent level, based on standard errors two-way clustered at the country and quarter levels. For details, see Engler, Ferrucci, and Zheng (forthcoming). ECB = European Central Bank.

Prepared by Gianluigi Ferrucci, Philipp Engler, and Tianxiao Zheng.

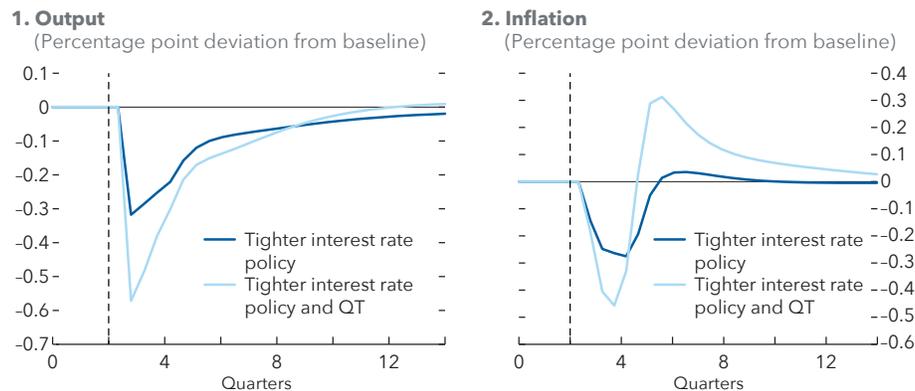
Box 4. (continued)

A unique feature of the ongoing ECB's tightening cycle is that it combines a sequence of sharp interest rate hikes with plans to progressively reduce the size of bond holdings under the asset purchase program. This raises the question of whether spillovers from conventional and unconventional measures differ, and whether the exchange rate regime and foreign exchange interventions could shape spillovers to emerging European economies.

The ECB's interest rate policy and quantitative tightening both generate significant spillovers to emerging European economies. Using a two-country dynamic stochastic general equilibrium model calibrated to the current context,¹ a first exercise compares spillovers from a scenario in which interest rates are hiked and complemented by a gradual and predictable unwinding of the ECB's asset purchase program stock—both broadly in line with ECB communication as of March 2023—to a counterfactual where only the interest rate hike is considered.² Both tightening strategies lead to lower output in emerging European economies, with tightening via interest rate policy accounting for a somewhat larger share of the overall output losses (Box Figure 4.2).

The adverse spillover effects from tighter ECB monetary policy tend to be more elevated under a fixed exchange rate regime than under the baseline of an inflation targeting regime with a freely floating currency. The results also suggest that, for countries with fixed exchange rate regimes, foreign exchange intervention can be an effective line of defense in terms of output and inflation stabilization when the ECB pursues both conventional and unconventional tightening. Generally, these findings are a reminder of the potential costs of a fixed exchange rate regime when the economy is exposed to large shocks with potentially asymmetric effects.

Box Figure 4.2. Spillovers to Emerging European Economies of Alternative ECB Tightening Policies



Source: IMF staff calculations.

Note: Spillovers to a representative emerging European economy with flexible exchange rate and inflation targeting central bank. Spillovers are expressed in terms of deviation from a gradual tightening scenario in which both the European Central Bank and the emerging European central bank follow a passive monetary policy in line with a standard Taylor rule. QT = quantitative tightening, namely a reduction in asset purchase program holdings.

¹ For details on the model, see Kolasa and Wesołowski (2020).

² The interest rate hike is calibrated to resemble the tightening that occurred between July 2022 and March 2023. It assumes that the policy rate is increased by 50 basis points above the prediction from a standard Taylor rule in four steps over one year. The gradual and predictable unwinding of the asset purchase program is calibrated to mimic the ECB's announcement of December 2022, envisioning a quarterly pace of reduction of asset purchase program holdings of €45 billion.

Box 5. What Does the Taylor Rule Say about the Stance of Monetary Policy across Europe?

The Taylor rule provides an approximate optimal monetary policy path that limits welfare losses from (output and inflation) volatility. Estimated based on past data, it provides a useful description of many central banks' reaction function, and, calibrated correctly, it can inform the optimal monetary policy path. Thus, it is a simple, positive, and normative metric, a general version of which is given by:

$$i_t = \rho i_{t-1} + (1 - \rho) [r^* + \pi^* + \beta^{CPI} (\pi_t - \pi^*) + \beta^Y (y_t - y^*)]$$

where i_t is the short-term rate, ρ is the interest rate smoothing parameter, r^* is the natural real rate, and π^* is the inflation target. For what follows, π_t is the average headline inflation in t and $t + 1$, and $(y_t - y^*)$ is the deviation of output growth from its average value.¹

To account for large uncertainty around (country-specific) optimal parameters, Taylor rule-implied rates are simulated for a wide range of parameters. The further actual policy rates are in the tail of the range, the more likely that rate changes are needed, all else equal. The parameter space for the simulation is given by $\rho \in (0.4, 0.6)$, $r^* \in (r^{C*} - 1, r^{C*} + 1)$, $\beta^{CPI} \in (1.0, 1.5)$, and $\beta^Y \in (0, 0.4)$ and is motivated by the empirical and theoretical literature. These ranges, which could possibly be narrowed significantly from country to country (reducing the uncertainty around the country-specific rates), nest a strict inflation target rule $\beta^Y = 0$, where policy rates react only to inflation, and other parameters are fixed at respective midvalues of the ranges. To allow for differences in the natural interest rate r^* while preserving parsimony across countries, three groups are differentiated based on historical ex post r^* and estimates in the literature: $r^{C*} = 2$ for Moldova and Türkiye; $r^{C*} = 0$ for the Czech Republic, euro area, Norway, Sweden, Switzerland, and the United Kingdom; and $r^{C*} = 1$ for all others. Simulations are based on observed data and IMF staff projections for inflation and output growth. They start in 2022. Inflation targets are the respective countries' targets, or the midpoints of the range for countries with upper and lower bounds.

The parameter-implied uncertainty makes the approach less suited for accurate advice on the precise optimal policy rate, but it is informative of whether policy rates are more likely to be on the low side or on the high side. Current policy rates are generally found to be at the lower end of the Taylor rule-implied range. This has not been the case historically, despite episodes of higher inflation and policy rates. Thus, under the baseline projection, it is likely that, for several countries, policy rates will still need to increase and remain higher for some time. Because a hybrid version of the Taylor rule (with a forward-looking inflation term) is simulated, the case for higher policy rates would be even more pressing at the current juncture if only the contemporaneous inflation rate were to be included in the Taylor rule. This is potentially a better reflection of the accurate policy stance in cases where inflation expectations are less well anchored.

Prepared by Sebastian Weber.

¹ Variations of the Taylor rule exist focusing on output gaps or changes in the unemployment rate for $(y_t - y^*)$ or alternative inflation metrics.

Box 6. The State of the European Banking Sector

Amid rising interest rates, European banks faced financial stress in early 2023. The failure of a US regional bank and the need to rescue Credit Suisse triggered worries about broader vulnerabilities in the financial system. With limited direct contagion through counterparty exposure, the main driver was market sentiment. Stock prices, default insurances, and secondary market rates for selected bank debt suffered setbacks.

Europe's banking sector today is better prepared for such testing times. Following several rounds of new financial sector regulation, bank liquidity and capital buffers have strengthened significantly (Box Figures 6.1 and 6.2). Headroom above regulatory limits is comfortable. The average (asset-weighted) Common Equity Tier 1 (CET1) ratio in European banks exceeds 16 percent. High-quality liquid assets of banks are also well above the regulatory limit with liquidity coverage ratios averaging more than 150 percent across Europe. Reliance of euro area global systemically important banks on wholesale funding and unsecured deposits from nonfinancial corporations (NFCs) range between 22 and 37 percent (Box Figure 6.3).

Pockets of vulnerabilities exist, however, including from unrealized losses, asset quality, and feedback loops with nonbank financial institutions (NBFIs). Fast-rising interest rates exposed banks with large fixed-income assets. In case of need, for instance due to funding shocks generated by changing market sentiment, these assets would have to be sold at a loss. Such unrealized losses, often associated with sovereign assets held to maturity, are significant for a number of countries, but are on average within headroom above CET1 thresholds even before accounting for possible unrealized gains from fixed-rate liabilities, hedges, or other offsetting factors.

A deterioration of asset quality is another potential cause for concern. While nonperforming loan (NPL) ratios are at a historic low, so-called stage 2 loans, for which banks are less certain of credit quality, and corporate insolvency filings are increasing (Box Figure 6.4). Finally, NBFIs, especially where leveraged, could amplify financial market stress with potential adverse feedback loops to banks. These risks would further rise if persistently high underlying inflation led to sharply higher-than-expected interest rates.

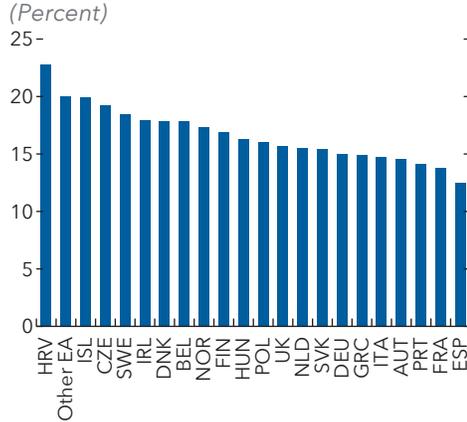
While there has been important progress, the financial system could be strengthened further. Supervisors can reduce uncertainty in markets by enhancing the transparency of banks' unrealized losses on hold-to-maturity exposures and offsetting factors, routinely performing stress tests, and verifying the feasibility and stability of bank funding structures. A faithful implementation of Basel III standards remains critical as the recent failure of Silicon Valley Bank has shown. For NBFIs, policy priorities include monitoring leverage- and liquidity-related risks, developing macroprudential policy tools, and working actively on closing data gaps.

Progress on the capital and banking unions remains paramount. The European Commission's recent capital market union legislative package for the first time includes steps toward harmonizing insolvency processes across member states. Stronger insolvency frameworks would expand firms' access to credit, help banks resolve NPLs, promote entrepreneurship, and deepen European debt markets. It is also important to make progress on finalizing the Banking Union, including the European deposit insurance scheme, full ratification of the European Stability Mechanism treaty that would give a backstop to the Single Resolution Fund, and the conclusion of the Commission's Review of the Crisis Management Framework.

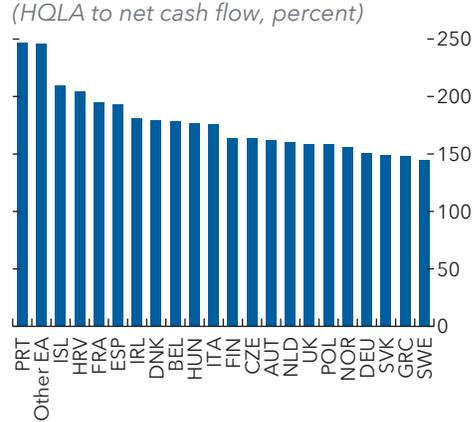
Prepared by Luis Brandao-Marques, Lev Ratnovski and Sebastian Weber.

Box 6. (continued)

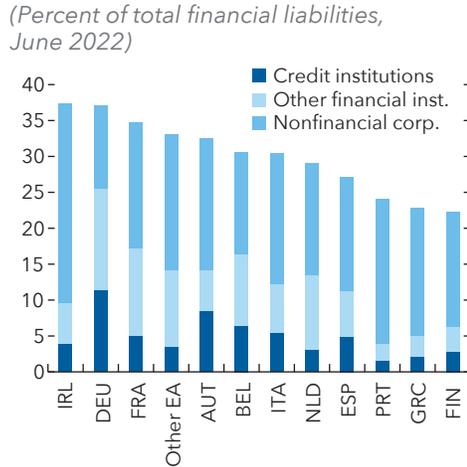
Box Figure 6.1. Europe: Common Equity Tier 1 Ratio, 2022:Q3
(Percent)



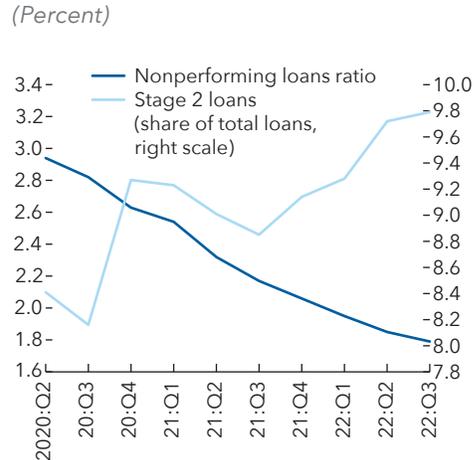
Box Figure 6.2. Europe: Bank Liquidity Coverage Ratio, 2022:Q3
(HQLA to net cash flow, percent)



Box Figure 6.3. Wholesale Funding in Euro Area Banks
(Percent of total financial liabilities, June 2022)



Box Figure 6.4. NPLs and Stage 2 Loans in Euro Area Banks
(Percent)



Sources: Bank of England; Bloomberg Finance L.P.; European Banking Authority, Transparency Data; ECB 2022; UK Office for National Statistics; and IMF staff calculations.

Note: Country abbreviations are International Organization for Standardization country codes. EA = euro area; HQLA = high-quality liquid assets; NPLs = nonperforming loans.

Annex Table 1.1 Real GDP Growth*(Year-over-year percent change; aggregation based on GDP in purchasing power parity terms)*

	Current WEO				October 2022 WEO			Difference		
	2021	2022	2023	2024	2022	2023	2024	2022	2023	2024
Europe	6.2	2.7	0.8	1.7	2.6	0.6	2.0	0.1	0.2	-0.3
Advanced European Economies	5.7	3.6	0.7	1.4	3.2	0.6	1.7	0.4	0.1	-0.3
Euro Area	5.4	3.5	0.8	1.4	3.1	0.5	1.8	0.4	0.3	-0.4
Austria	4.6	5.0	0.4	1.1	4.7	1.0	1.9	0.3	-0.6	-0.8
Belgium	6.1	3.1	0.7	1.1	2.4	0.4	1.4	0.7	0.3	-0.3
Croatia	13.1	6.3	1.7	2.3	5.9	3.5	3.0	0.4	-1.8	-0.7
Cyprus	6.6	5.6	2.5	2.8	3.5	2.5	2.6	2.1	0.0	0.2
Estonia	8.0	-1.3	-1.2	3.2	1.0	1.8	3.8	-2.3	-3.0	-0.6
Finland	3.0	2.1	0.0	1.3	2.1	0.5	1.1	0.0	-0.5	0.2
France	6.8	2.6	0.7	1.3	2.5	0.7	1.6	0.1	0.0	-0.3
Germany	2.6	1.8	-0.1	1.1	1.5	-0.3	1.5	0.3	0.2	-0.4
Greece	8.4	5.9	2.6	1.5	5.2	1.8	2.2	0.7	0.8	-0.7
Ireland	13.6	12.0	5.6	4.0	9.0	4.0	4.0	3.0	1.6	0.0
Italy	7.0	3.7	0.7	0.8	3.2	-0.2	1.3	0.5	0.9	-0.5
Latvia	4.1	2.0	0.4	2.9	2.5	1.6	3.4	-0.5	-1.2	-0.5
Lithuania	6.0	1.9	-0.3	2.7	1.8	1.1	2.8	0.1	-1.4	-0.1
Luxembourg	5.1	1.5	1.1	1.7	1.6	1.1	2.5	-0.1	0.0	-0.8
Malta	11.8	6.9	3.5	3.5	6.2	3.3	3.6	0.7	0.2	-0.1
Netherlands, The	4.9	4.5	1.0	1.2	4.5	0.8	1.7	0.0	0.2	-0.5
Portugal	5.5	6.7	1.0	1.7	6.2	0.7	2.4	0.5	0.3	-0.7
Slovak Republic	3.0	1.7	1.3	2.7	1.8	1.5	3.4	-0.1	-0.2	-0.7
Slovenia	8.2	5.4	1.6	2.1	5.7	1.7	3.0	-0.3	-0.1	-0.9
Spain	5.5	5.5	1.5	2.0	4.3	1.2	2.6	1.2	0.3	-0.6
Nordic Economies	4.8	3.1	0.4	1.5	2.9	0.9	2.1	0.2	-0.5	-0.6
Denmark	4.9	3.6	0.0	1.0	2.6	0.6	1.9	1.0	-0.6	-0.9
Iceland	4.3	6.4	2.3	2.1	5.1	2.9	2.6	1.3	-0.6	-0.5
Norway	3.9	3.3	2.1	2.5	3.6	2.6	2.2	-0.3	-0.5	0.3
Sweden	5.4	2.6	-0.5	1.0	2.6	-0.1	2.1	0.0	-0.4	-1.1
Other European Advanced Economies	6.8	3.9	0.2	1.4	3.5	0.7	1.3	0.4	-0.5	0.1
Andorra	8.9	8.7	1.3	1.5	6.6	2.0	2.4	2.1	-0.7	-0.9
Czech Republic	3.6	2.4	-0.5	2.0	1.9	1.5	3.9	0.5	-2.0	-1.9
Israel	8.6	6.4	2.9	3.1	6.1	3.0	3.0	0.3	-0.1	0.1
San Marino	8.3	4.6	1.2	1.0	3.1	0.8	1.1	1.5	0.4	-0.1
Switzerland	4.2	2.1	0.8	1.8	2.2	0.8	1.8	-0.1	0.0	0.0
United Kingdom	7.6	4.0	-0.3	1.0	3.6	0.3	0.6	0.4	-0.6	0.4

	Current WEO				October 2022 WEO			Difference		
	2021	2022	2023	2024	2022	2023	2024	2022	2023	2024
Emerging European Economies	7.3	0.8	1.2	2.4	1.1	0.5	2.5	-0.3	0.7	-0.1
Central Europe	6.9	4.9	0.4	2.6	4.2	0.8	3.1	0.7	-0.4	-0.5
Hungary	7.1	4.9	0.5	3.2	5.7	1.8	2.8	-0.8	-1.3	0.4
Poland	6.8	4.9	0.3	2.4	3.8	0.5	3.1	1.1	-0.2	-0.7
Eastern Europe	5.3	-4.5	0.4	1.3	-3.5	-2.1	1.5	-1.0	2.5	-0.2
Belarus	2.3	-4.7	0.7	1.2	-7.0	0.2	1.0	2.3	0.5	0.2
Moldova	13.9	-5.6	2.0	4.3	0.0	2.3	5.8	-5.6	-0.3	-1.5
Russia	5.6	-2.1	0.7	1.3	-3.4	-2.3	1.5	1.3	3.0	-0.2
Ukraine	3.4	-30.3	-3.0	.	-35.0	.	.	4.7	.	.
Southeastern European EU Member States	6.3	4.5	2.2	3.6	4.6	3.1	3.8	-0.1	-0.9	-0.2
Bulgaria	7.6	3.4	1.4	3.5	3.9	3.0	4.1	-0.5	-1.6	-0.6
Romania	5.9	4.8	2.4	3.7	4.8	3.1	3.8	0.0	-0.7	-0.1
Southeastern European Non-EU Member States	7.7	2.9	2.1	3.2	3.4	2.6	3.4	-0.5	-0.5	-0.2
Albania	8.5	3.7	2.2	3.3	4.0	2.5	3.2	-0.3	-0.3	0.1
Bosnia and Herzegovina	7.4	3.8	2.0	3.0	2.4	2.0	3.0	1.4	0.0	0.0
Kosovo	10.7	2.7	3.5	3.9	2.7	3.5	3.9	0.0	0.0	0.0
Montenegro	13.0	6.4	3.2	3.0	7.2	2.5	3.0	-0.8	0.7	0.0
North Macedonia	3.9	2.2	1.4	3.6	2.7	3.0	3.9	-0.5	-1.6	-0.3
Serbia	7.5	2.3	2.0	3.0	3.5	2.7	3.5	-1.2	-0.7	-0.5
Türkiye	11.4	5.6	2.7	3.6	5.0	3.0	3.0	0.6	-0.3	0.6
<i>Memorandum</i>										
World	6.3	3.4	2.8	3.0	3.2	2.7	3.2	0.2	0.1	-0.2
Advanced economies	5.4	2.7	1.3	1.4	2.4	1.1	1.6	0.3	0.2	-0.2
Emerging market and developing economies	6.9	4.0	3.9	4.2	3.7	3.7	4.3	0.3	0.2	-0.1
Emerging Europe excl. Belarus, Russia, Türkiye and Ukraine	6.9	4.4	1.1	3.0	4.2	1.6	3.4	0.2	-0.5	-0.4
European Union	5.6	3.7	0.7	1.6	3.2	0.7	2.1	0.5	0.0	-0.5
United States	5.9	2.1	1.6	1.1	1.6	1.0	1.2	0.5	0.6	-0.1
China	8.4	3.0	5.2	4.5	3.2	4.4	4.5	-0.2	0.8	0.0
Japan	2.1	1.1	1.3	1.0	1.7	1.6	1.3	-0.6	-0.3	-0.3

Sources: IMF, World Economic Outlook (WEO) database; and IMF staff calculations.

Annex Table 1.2. Headline Inflation*(Year-over-year percent change; aggregation based on GDP in purchasing power parity terms)*

	Current WEO				October 2022 WEO			Difference		
	2021	2022	2023	2024	2022	2023	2024	2022	2023	2024
Europe	4.8	15.2	10.4	6.3	15.1	10.6	5.1	0.1	-0.2	1.2
Advanced European Economies	2.5	8.4	5.6	3.0	8.3	6.2	2.9	0.1	-0.6	0.1
Euro Area	2.6	8.4	5.3	2.9	8.3	5.7	2.7	0.1	-0.4	0.2
Austria	2.8	8.6	8.2	3.0	7.7	5.1	2.5	0.9	3.1	0.5
Belgium	3.2	10.3	4.7	2.1	9.5	4.9	1.8	0.8	-0.2	0.3
Croatia	2.7	10.7	7.4	3.6	9.8	5.5	3.9	0.9	1.9	-0.3
Cyprus	2.2	8.1	3.9	2.5	8.0	3.8	2.1	0.1	0.1	0.4
Estonia	4.5	19.4	9.7	4.1	21.0	9.5	2.5	-1.6	0.2	1.6
Finland	2.1	7.2	5.3	2.5	6.5	3.5	1.8	0.7	1.8	0.7
France	2.1	5.9	5.0	2.5	5.8	4.6	2.4	0.1	0.4	0.1
Germany	3.2	8.7	6.2	3.1	8.5	7.2	3.5	0.2	-1.0	-0.4
Greece	0.6	9.3	4.0	2.9	9.2	3.2	1.6	0.1	0.8	1.3
Ireland	2.4	8.1	5.0	3.2	8.4	6.5	3.0	-0.3	-1.5	0.2
Italy	1.9	8.7	4.5	2.6	8.7	5.2	1.7	0.0	-0.7	0.9
Latvia	3.2	17.2	9.7	3.5	16.5	8.0	2.9	0.7	1.7	0.6
Lithuania	4.6	18.9	10.5	5.8	17.6	8.4	3.2	1.3	2.1	2.6
Luxembourg	3.5	8.1	2.6	3.1	8.4	3.7	2.3	-0.3	-1.1	0.8
Malta	0.7	6.1	5.8	3.4	5.9	4.6	2.6	0.2	1.2	0.8
Netherlands, The	2.8	11.6	3.9	4.2	12.0	8.0	2.7	-0.4	-4.1	1.5
Portugal	0.9	8.1	5.7	3.1	7.9	4.7	2.6	0.2	1.0	0.5
Slovak Republic	2.8	12.1	9.5	4.3	11.9	10.1	4.4	0.2	-0.6	-0.1
Slovenia	1.9	8.8	6.4	4.5	8.9	5.1	3.3	-0.1	1.3	1.2
Spain	3.0	8.3	4.3	3.2	8.8	4.9	3.5	-0.5	-0.6	-0.3
Nordic Economies	2.7	7.6	5.8	2.6	6.5	5.8	3.0	1.1	0.0	-0.4
Denmark	1.9	8.5	4.8	2.8	7.2	3.8	2.4	1.3	1.0	0.4
Iceland	4.5	8.3	8.1	4.2	8.4	6.7	4.1	-0.1	1.4	0.1
Norway	3.5	5.8	4.9	2.8	4.7	3.8	2.7	1.1	1.1	0.1
Sweden	2.7	8.1	6.8	2.3	7.2	8.4	3.5	0.9	-1.6	-1.2
Other European Advanced Economies	2.3	8.4	6.5	3.1	8.6	7.6	3.2	-0.2	-1.1	-0.1
Andorra	1.7	6.2	5.6	2.9	5.3	2.8	1.9	0.9	2.8	1.0
Czech Republic	3.8	15.1	11.8	5.8	16.3	8.6	2.5	-1.2	3.2	3.3
Israel	1.5	4.4	4.3	3.1	4.5	3.6	2.5	-0.1	0.7	0.6
San Marino	2.1	7.1	4.6	2.7	6.9	4.5	1.5	0.2	0.1	1.2
Switzerland	0.6	2.8	2.4	1.6	3.1	2.4	1.5	-0.3	0.0	0.1
United Kingdom	2.6	9.1	6.8	3.0	9.1	9.0	3.7	0.0	-2.2	-0.7

	Current WEO				October 2022 WEO			Difference		
	2021	2022	2023	2024	2022	2023	2024	2022	2023	2024
Emerging European Economies	9.7	30.2	21.0	13.9	30.9	20.9	10.2	-0.7	0.1	3.7
Central Europe	5.1	14.4	13.1	5.9	13.8	14.1	4.5	0.6	-1.0	1.4
Hungary	5.1	14.5	17.7	5.4	13.9	13.3	5.6	0.6	4.4	-0.2
Poland	5.1	14.4	11.9	6.1	13.8	14.3	4.3	0.6	-2.4	1.8
Eastern Europe	7.1	14.4	8.2	4.8	14.0	5.5	4.3	0.4	2.7	0.5
Belarus	9.5	14.8	7.5	10.1	16.5	13.1	11.7	-1.7	-5.6	-1.6
Moldova	5.1	28.6	13.8	5.0	28.5	13.8	5.0	0.1	0.0	0.0
Russia	6.7	13.8	7.0	4.6	13.8	5.0	4.0	0.0	2.0	0.6
Ukraine	9.4	20.2	21.1	.	20.6	.	.	-0.4	.	.
Southeastern European EU Member States	4.6	13.6	9.8	5.0	13.1	9.8	3.3	0.5	0.0	1.7
Bulgaria	2.8	13.0	7.5	2.2	12.4	5.2	2.2	0.6	2.3	0.0
Romania	5.0	13.8	10.5	5.8	13.3	11.0	3.6	0.5	-0.5	2.2
Southeastern European Non-EU Member States	3.2	11.9	9.2	4.2	10.6	6.5	3.6	1.3	2.7	0.6
Albania	2.0	6.7	5.0	3.4	6.2	4.3	3.0	0.5	0.7	0.4
Bosnia and Herzegovina	2.0	14.0	6.0	3.0	10.5	4.5	3.5	3.5	1.5	-0.5
Kosovo	3.3	11.7	5.5	2.6	12.0	5.0	2.6	-0.3	0.5	0.0
Montenegro	2.4	13.0	9.7	5.0	12.8	9.2	4.5	0.2	0.5	0.5
North Macedonia	3.2	14.2	9.2	3.5	10.6	4.5	2.4	3.6	4.7	1.1
Serbia	4.1	12.0	12.2	5.3	11.5	8.3	4.2	0.5	3.9	1.1
Türkiye	19.6	72.3	50.6	35.2	73.1	51.2	24.2	-0.8	-0.6	11.0
<i>Memorandum</i>										
World	4.7	8.7	7.0	4.9	8.8	6.5	4.1	-0.1	0.5	0.8
Advanced economies	3.1	7.3	4.7	2.6	7.2	4.4	2.4	0.1	0.3	0.2
Emerging market and developing economies	5.9	9.8	8.6	6.5	9.9	8.1	5.3	-0.1	0.5	1.2
Emerging Europe excl. Belarus, Russia, Türkiye and Ukraine	4.8	14.1	11.7	5.5	13.5	12.0	4.1	0.6	-0.3	1.4
European Union	2.9	9.3	6.3	3.3	9.2	6.8	3.0	0.1	-0.5	0.3
United States	4.7	8.0	4.5	2.3	8.1	3.5	2.2	-0.1	1.0	0.1
China	0.9	1.9	2.0	2.2	2.2	2.2	1.9	-0.3	-0.2	0.3
Japan	-0.2	2.5	2.7	2.2	2.0	1.4	1.0	0.5	1.3	1.2

Sources: IMF, World Economic Outlook (WEO) database; and IMF staff calculations.