Has the fight against inflation been won?

Isabel Schnabel
*Member of the Executive Board
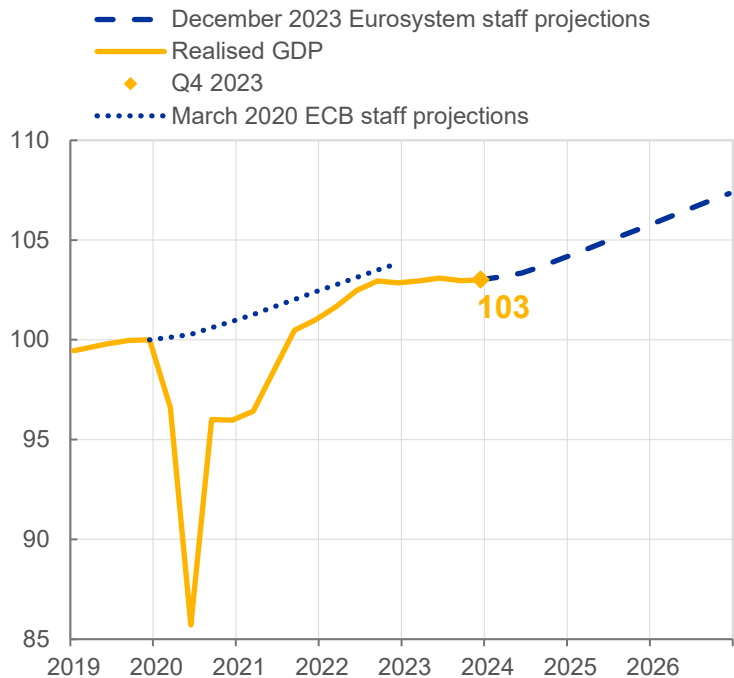of the European Central Bank*

Lecture on monetary policy and financial policy
Bocconi University, Milan, 23 February 2024

Economic growth and inflation in the euro area since the start of the pandemic
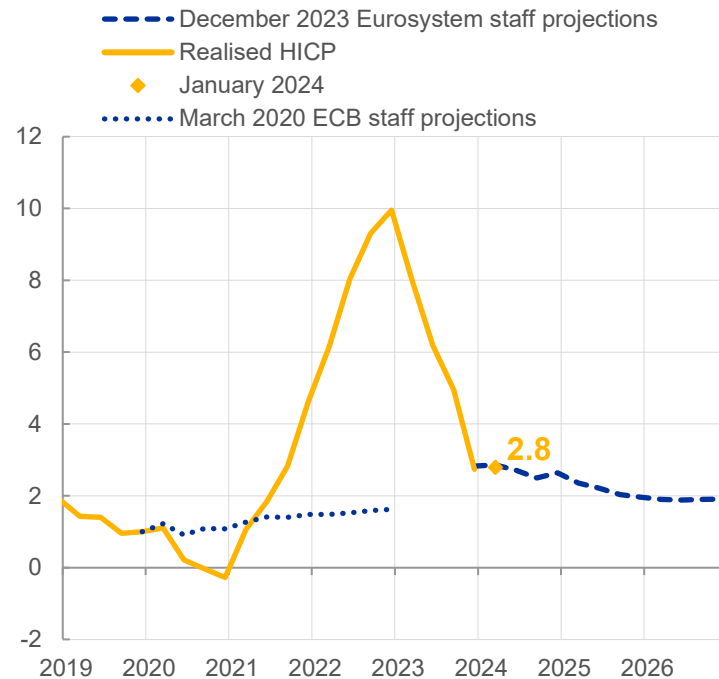
Real GDP
(index: Q4 2019 = 100)

- – – December 2023 Eurosystem staff projections
- —— Realised GDP
- ◆ Q4 2023
- ····· March 2020 ECB staff projections

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Inflation
(annual percentage changes, quarterly data)

- – – December 2023 Eurosystem staff projections
- —— Realised HICP
- ◆ January 2024
- ····· March 2020 ECB staff projections

2.8

Sources: Eurostat, ECB and Eurosystem.
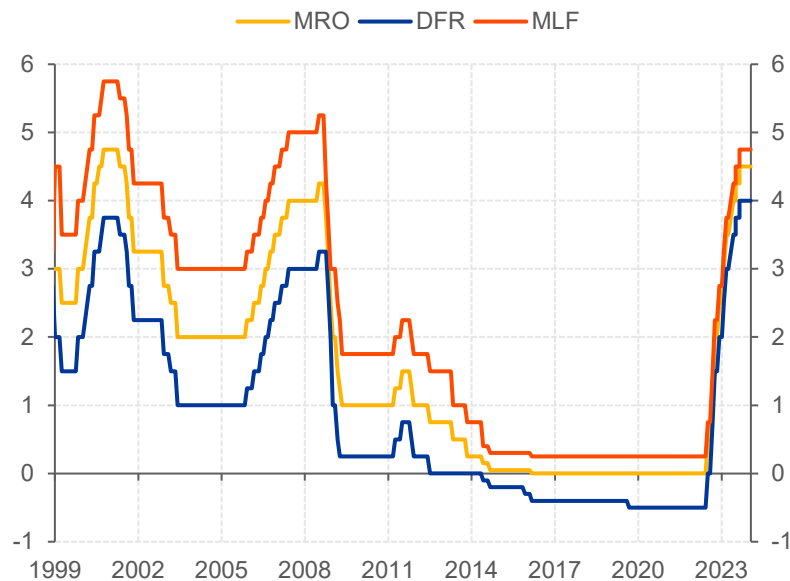Latest observation: Q4 2023 for realised GDP (diamond).

Sources: Eurostat, ECB and Eurosystem.
Latest observation: Q4 2023 for quarterly data, January 2024 for monthly data (diamond).

ECB has taken determined policy action to tackle unprecedented inflation surge
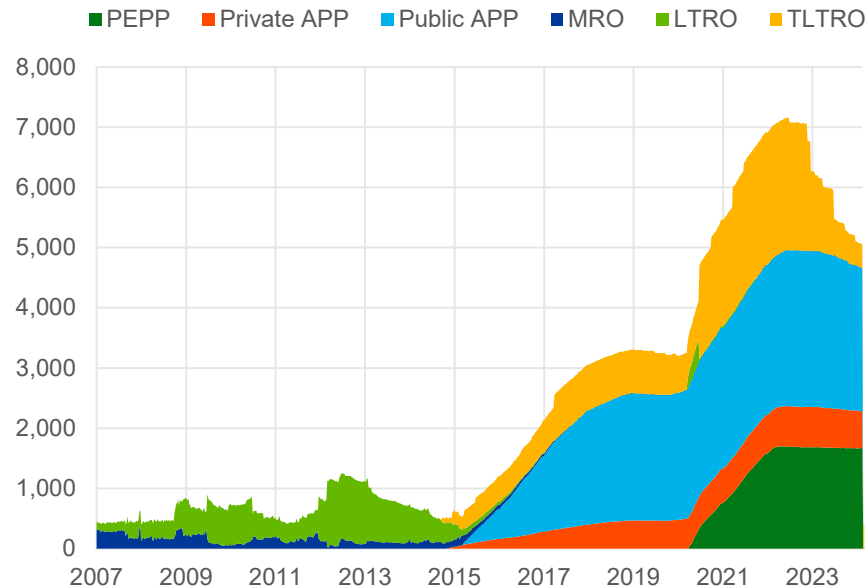
ECB key interest rates
(%)

Legend: MRO, DFR, MLF

Source: ECB.
Latest observation: February 2024.

Monetary policy assets
(€ billion)

Legend: PEPP, Private APP, Public APP, MRO, LTRO, TLTRO
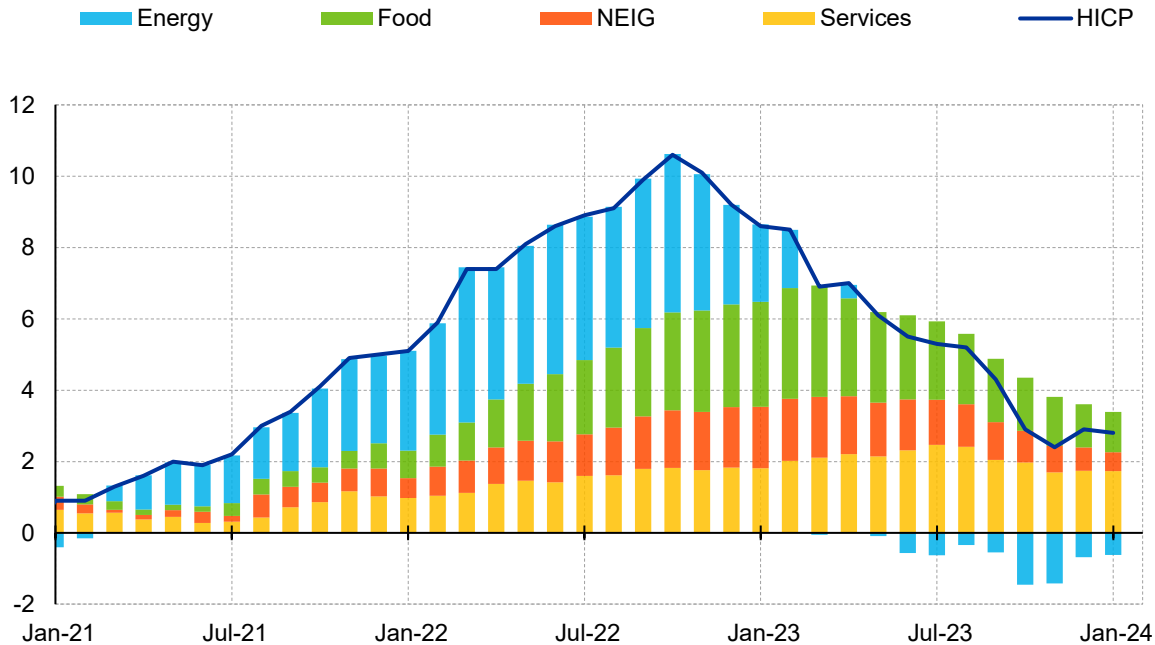
Source: ECB.
Notes: Public APP is PSPP, Private APP is CBPP3, ABSPP and CSPP.
Latest observation: February 2024.

HICP inflation and contributions
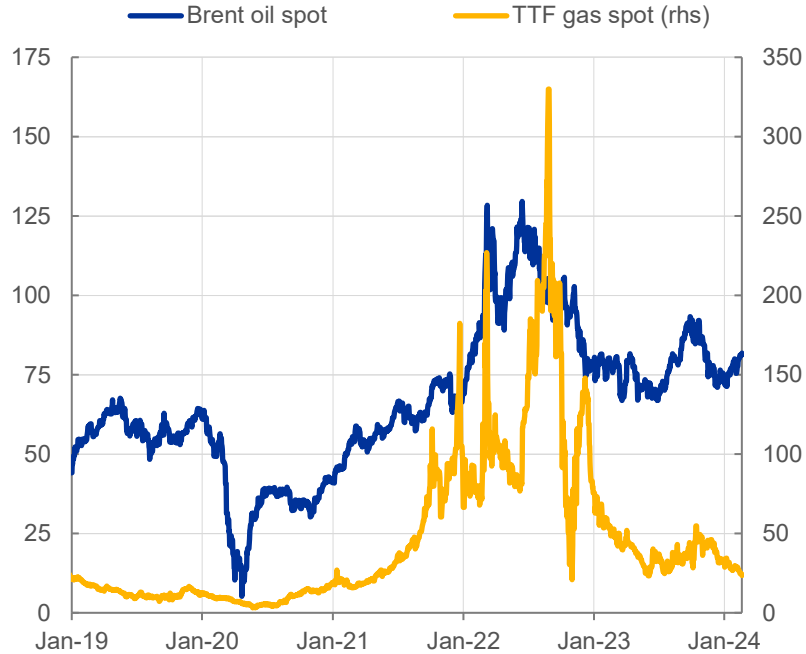(annual percentage changes and percentage point contribution)

Sources: Eurostat and ECB calculations.
Latest observation: January 2024.

Energy price shock and supply chain disruptions have been fading

Crude oil and natural gas prices
(oil: EUR/barrel, gas: EUR/MWh)

— Brent oil spot — TTF gas spot (rhs)

Sources: Bloomberg and ECB calculations.
Latest observation: 18 February 2024.

Shipping prices
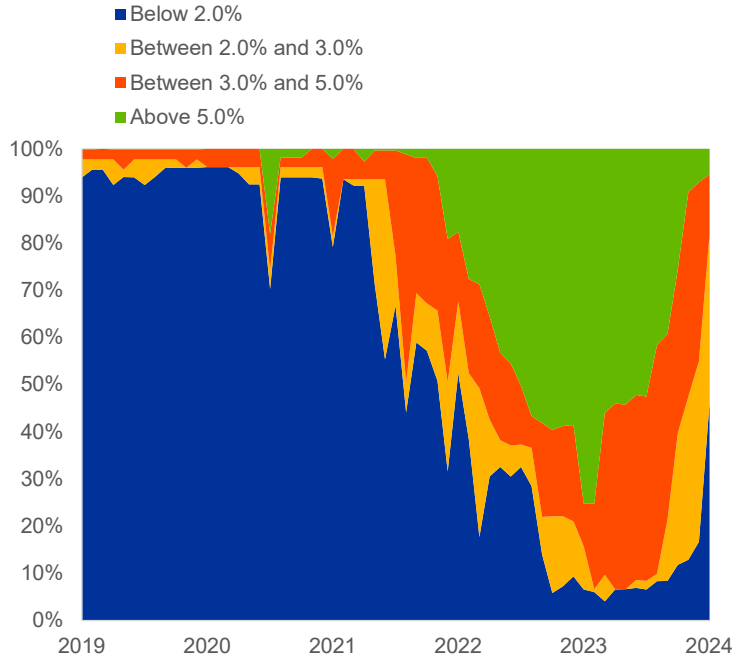(index; Jan 2019 = 100)

— China to US — China to Europe

Sources: Refinitiv, Freightos and ECB staff calculations.
Notes: Freightos baltic directional freight costs (for forty-foot equivalent unit shipping container).
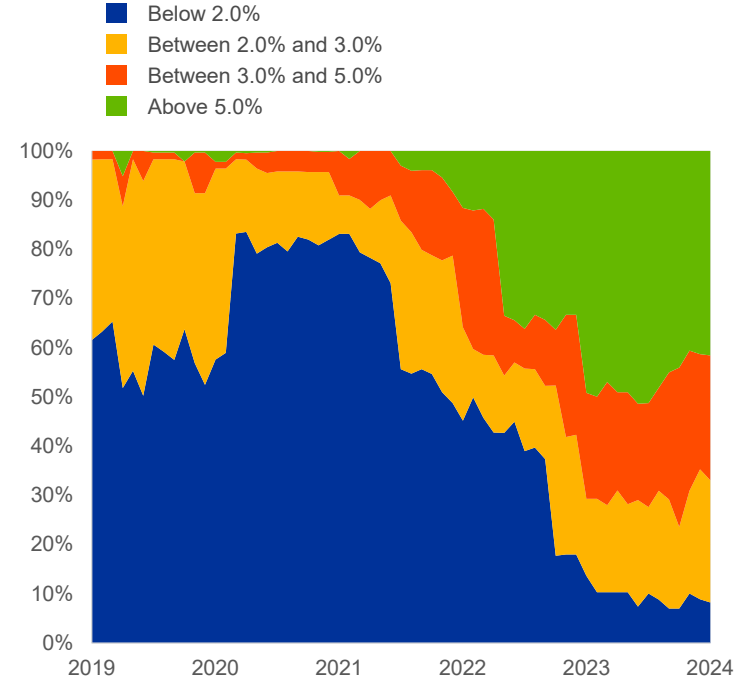Latest observation: 18 February 2024.

Weighted distribution of price changes
(%)

Non-energy industrial goods

- Below 2.0%
- Between 2.0% and 3.0%
- Between 3.0% and 5.0%
- Above 5.0%

Services

- Below 2.0%
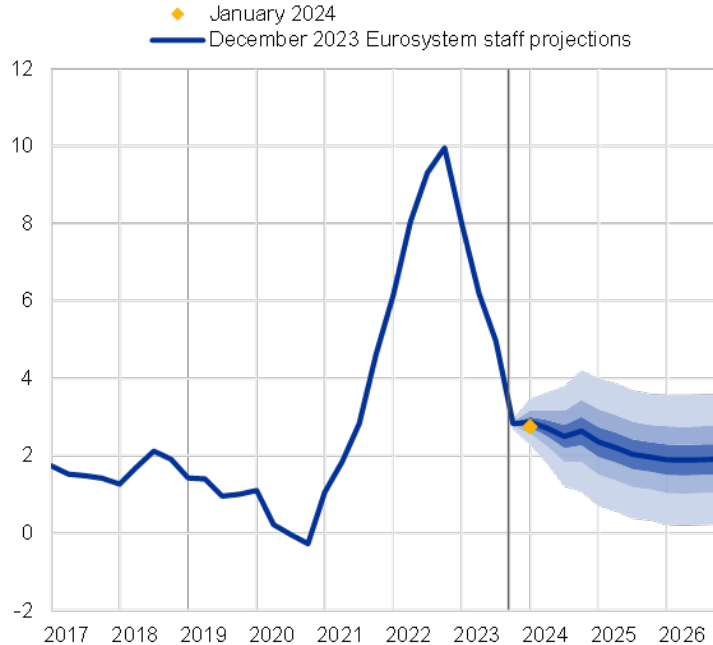- Between 2.0% and 3.0%
- Between 3.0% and 5.0%
- Above 5.0%

Sources: Eurostat, ECB calculations.
Notes: Based on 39 items for Services and 33 items for Non-energy industrial goods; the weight of items sums up the weight of items in the HICP basket in the different categories.
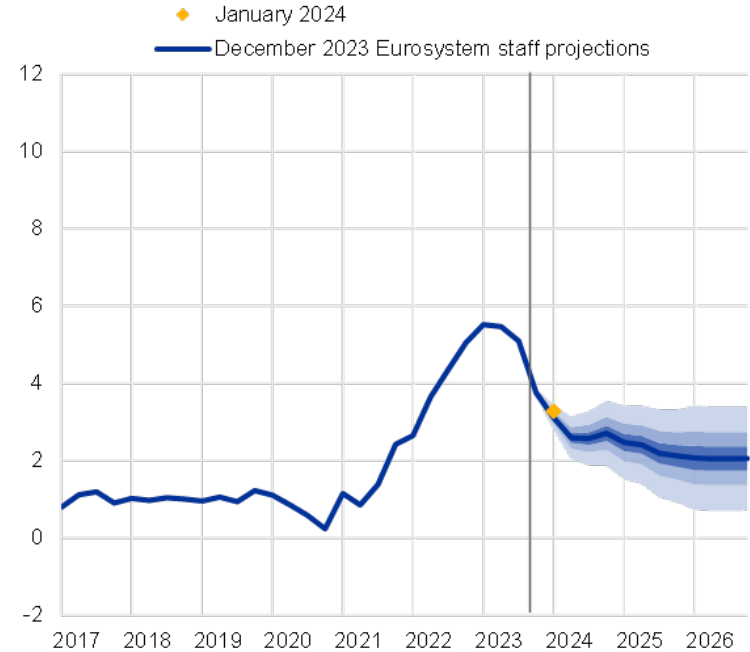Latest observation: January 2024.

HICP inflation projections
(annual percentage changes)

♦ January 2024
—— December 2023 Eurosystem staff projections

HICP excluding energy and food inflation projections
(annual percentage changes)

♦ January 2024
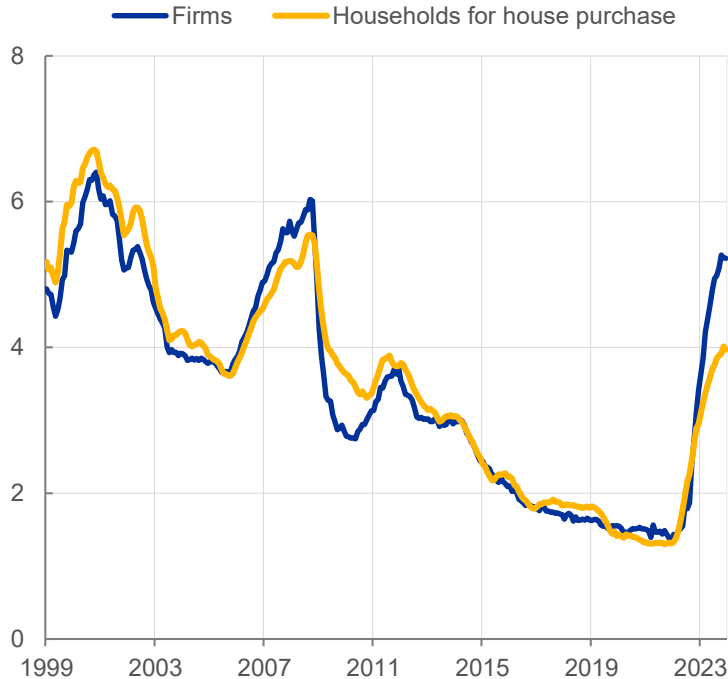—— December 2023 Eurosystem staff projections

Sources: December 2023 Eurosystem staff projections and Eurostat.
Notes: The ranges shown around the central projections are based on past projection errors, after adjustment for outliers. The bands, from darkest to lightest, depict the 30%, 60% and 90% probabilities that the outcome will fall within the respective intervals. For more information, see Box 6 of the March 2023 ECB staff macroeconomic projections for the euro area.
Latest observation: January 2024 for monthly data (diamond).

Strong transmission of monetary policy to funding costs and bank lending

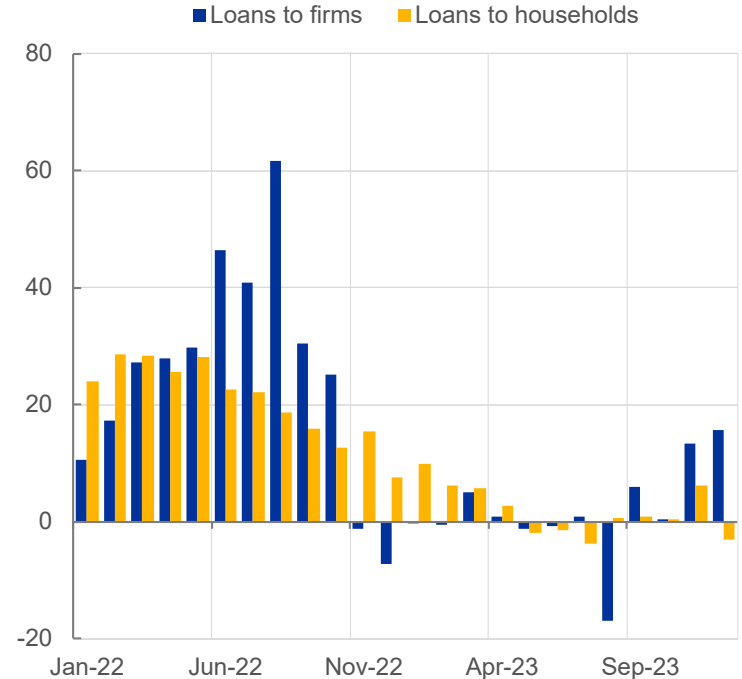## Composite cost of borrowing
(percentages per annum)

Sources: ECB (MIR) and ECB calculations.
Notes: The indicator for the total cost of bank borrowing for firms is calculated by aggregating short-term and long-term rates using a 24-month moving average of new business volumes.
Latest observation: December 2023.

Bank loans to firms and households
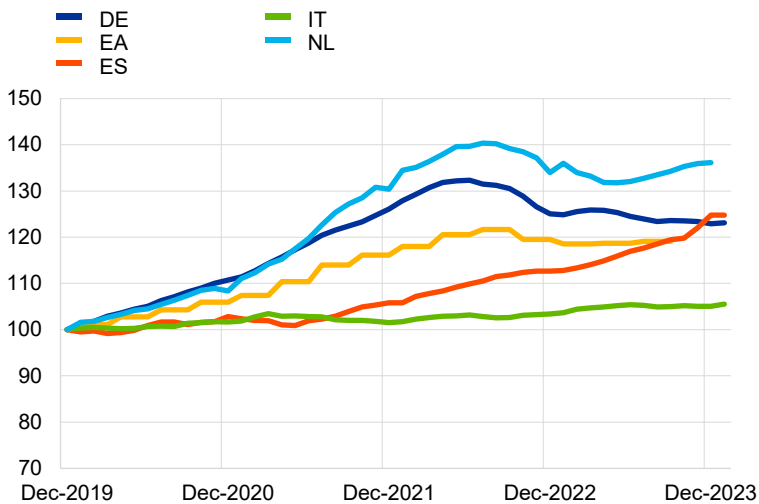### (monthly flows in EUR bn)

Source: ECB (BSI).
Notes: Loans to households and firms are adjusted for sales and securitisation. Loans to firms are also adjusted for cash pooling.
Latest observation: December 2023.

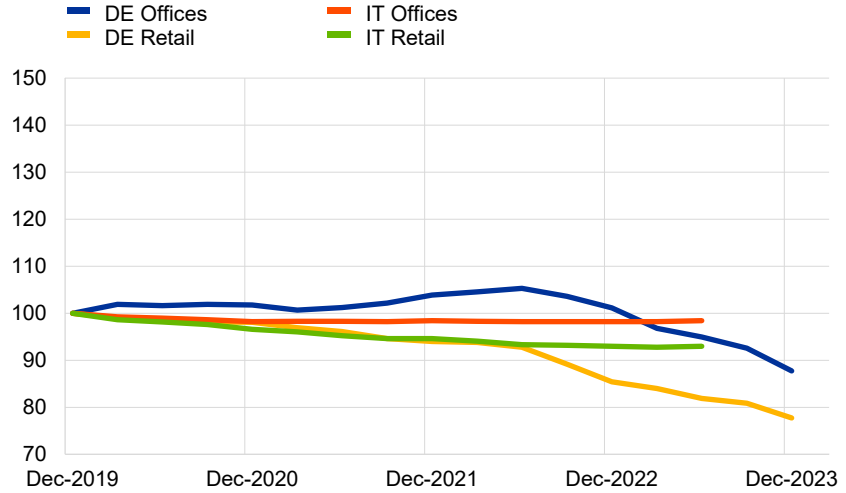# Cooling of real estate markets with some heterogeneity

House prices
(Monthly RRE price indices – December 2019 = 100)

Legend: DE, EA, ES, IT, NL

Commercial real estate prices
(Quarterly CRE price indices – December 2019 = 100)

Legend: DE Offices, DE Retail, IT Offices, IT Retail

Sources: Europace, Eurostat, Immobiliare.it, Indomio.es, Statistics Netherlands.
Notes: RRE stands for Residential Real Estate. Last EA observation from Eurostat is for Q3 2023, so several countries with more timely data available are added. For IT and ES an average listing price index is reported. For all other countries the index reported is a hedonic price index based on transaction prices.
Latest observation: January 2023 for DE, ES and IT, December 2023 for NL, Q3 2023 for EA.
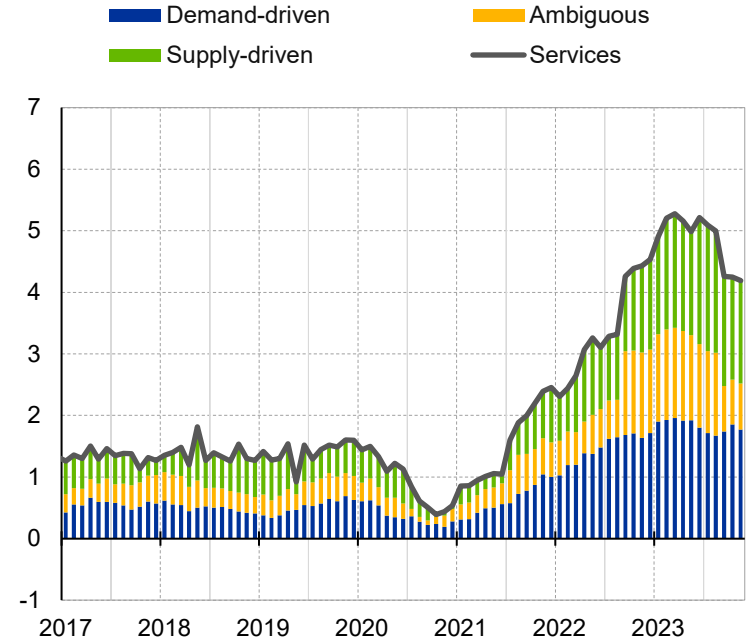
Sources: ECB.
Latest observation: DE: 2023 Q4, IT: 2023 Q2.

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Decomposition of euro area underlying inflation
(annual % change, pp contributions)

Non-energy industrial goods inflation

- Demand-driven
- Supply-driven
- Ambiguous
- NEIG

Services inflation

- Demand-driven
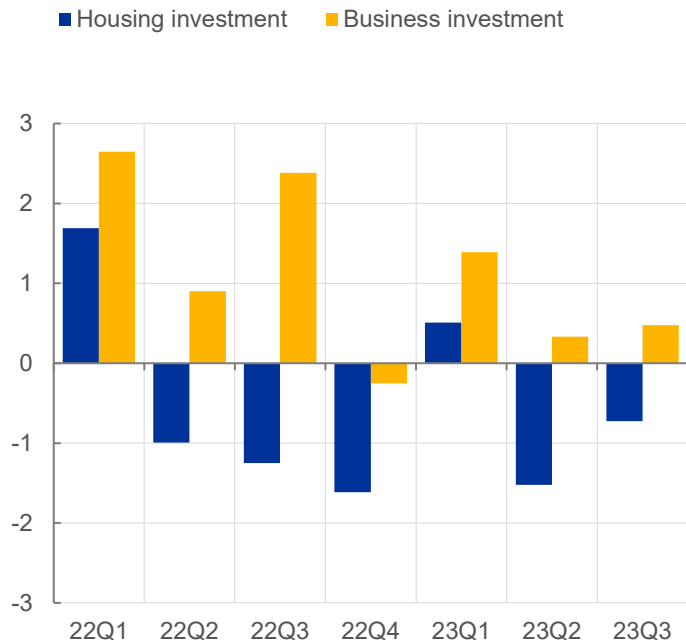- Supply-driven
- Ambiguous
- Services

Sources: Eurostat and ECB staff calculations.
Notes: Seasonally adjusted data. See for details on the decomposition approach Gonçalves and Koester (2022) and Shapiro (2022). NEIG and services inflation reflects the sum of demand-driven, supply-driven and ambiguous components, calculated as the trailing sum of the last 12 monthly contributions. Ambiguous component for services inflation in 2022/2023 affected by measures subsidizing public transport in Germany (and their reversal).
Latest observation: November 2023.

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Weaker investment amid structural weaknesses

Housing and business investment
(q-o-q percentage change)
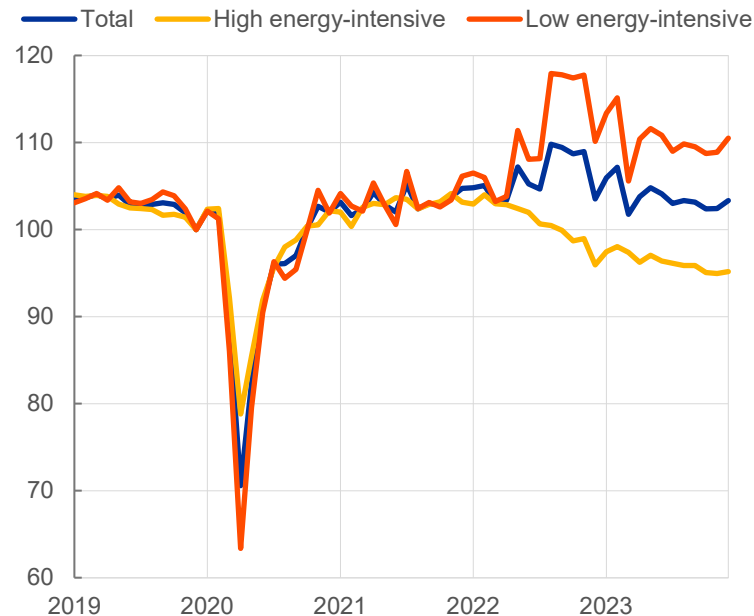
- ■ Housing investment
- ■ Business investment

Source: Eurostat.
Notes: The series for business investment is adjusted excluding Irish intellectual property products (IPP).
Latest observations: Q3 2023.

Industrial production: manufacturing sector
(index: December 2019 = 100)

- — Total
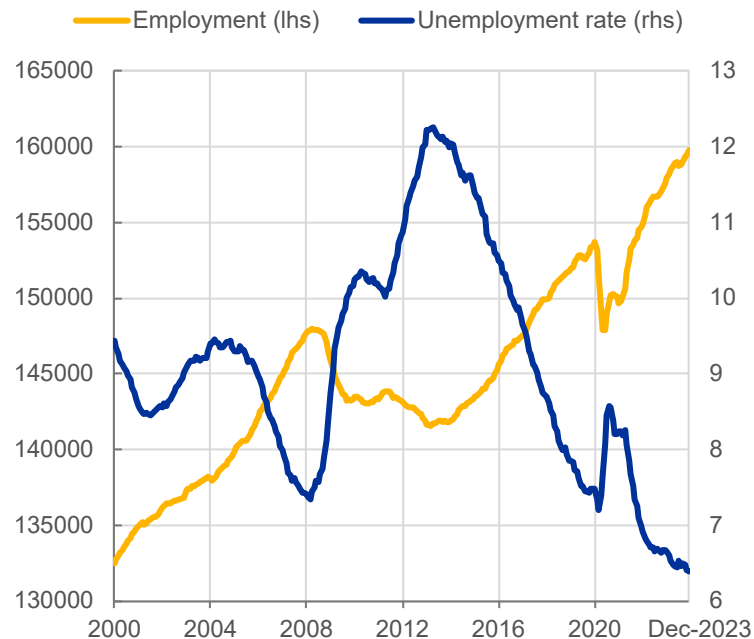- — High energy-intensive
- — Low energy-intensive

Sources: Eurostat, Trade Data Monitor and ECB staff calculations.
Notes: Data are seasonally-adjusted. Industrial production indices for individual sectors are aggregated with value-added weights. Low (high) energy-intensity sectors are defined as those with an energy intensity lower (higher) than that of the median sector. For more details, see Chiacchio, De Santis, Gunnella and Lebastard (2023).
Latest observation: December 2023.

Unemployment rate and employment
(lhs: thousands of persons; rhs: percentage of the labour force)

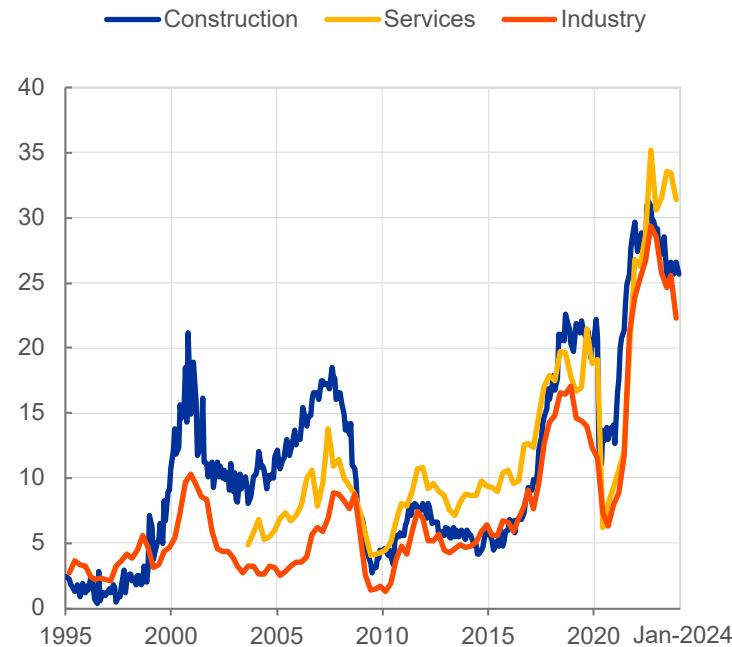— Employment (lhs) — Unemployment rate (rhs)

Source: ECB calculations based on Eurostat data.
Notes: The monthly employment data have been computed manually as
the difference between labour force and unemployment.
Latest observation: December 2023.

Labour as a factor limiting production
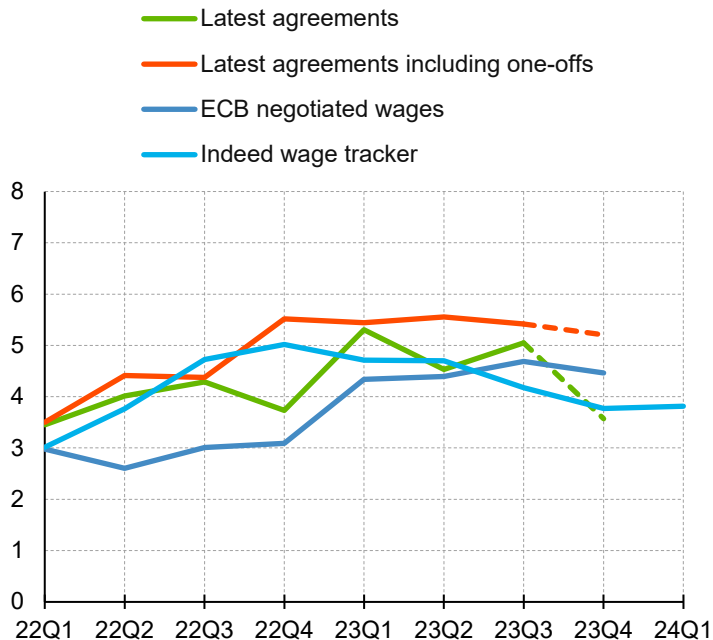(percentage of firms)

— Construction — Services — Industry

Source: European Commission.
Latest observation: January 2024.

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Strong wage growth and falling productivity put upward pressure on unit labour costs

Wage trackers
(annual percentage change)

Sources: Calculated based on micro data on wage agreements provided by Deutsche Bundesbank, Banco de España, the Dutch employer association (AWVN), Oesterreichische Nationalbank, Bank of Greece, Banca d 'Italia and Banque de France.
Notes: Indicator of latest wage agreements shows the wage growth implied by agreements reached in a quarter for 12 months ahead. Indeed tracker measures wage growth in online job ads, computed by the Central Bank of Ireland.
Latest observations: 2024 Q1 (based on Jan 24) for Indeed wage tracker, 2023Q4 for ECB negotiated wages, 2023Q4 for wage growth in latest agreements preliminary as not all collective agreements reached in 2023Q4 are available/included yet.

Labour productivity per hour
(index 2019 Q4 = 100)
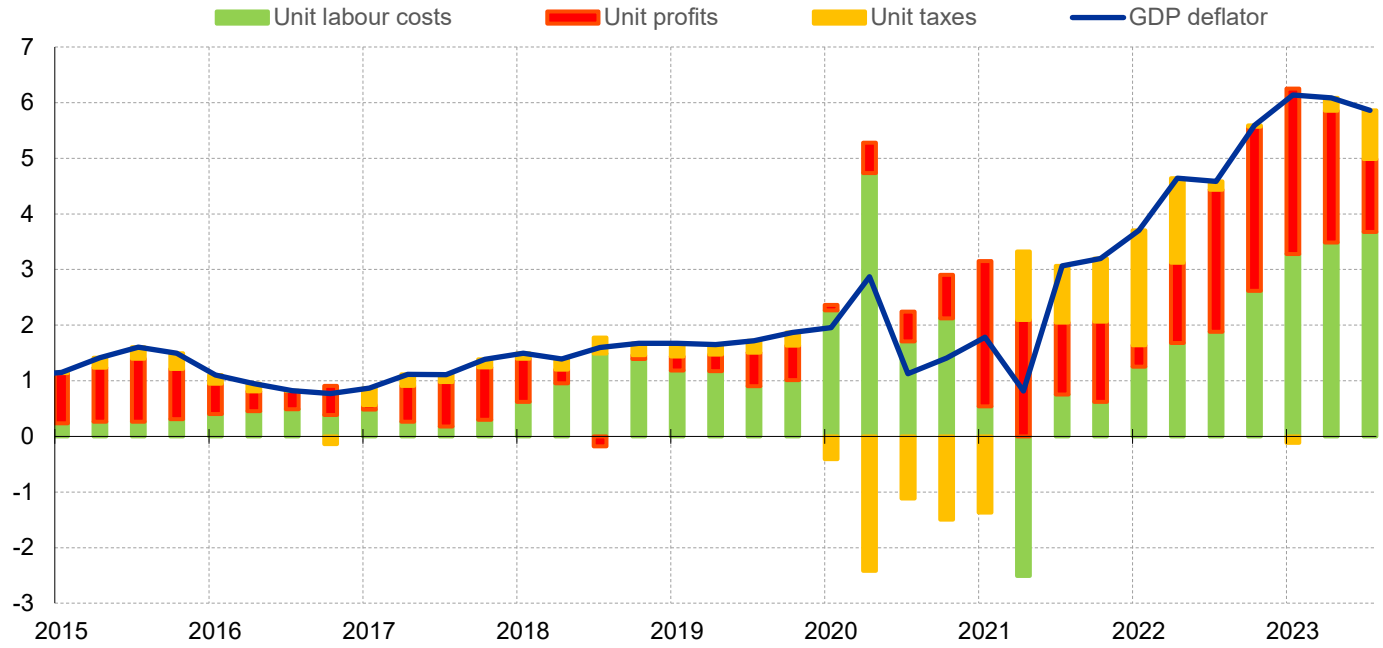

Sources: ECB calculation based on Eurostat data.
Notes: The dashed line represents the historical average from January 2000 to December 2019.
Latest observation: 2023 Q2.

Profit margins are expected to absorb higher unit labour costs, but risks remain
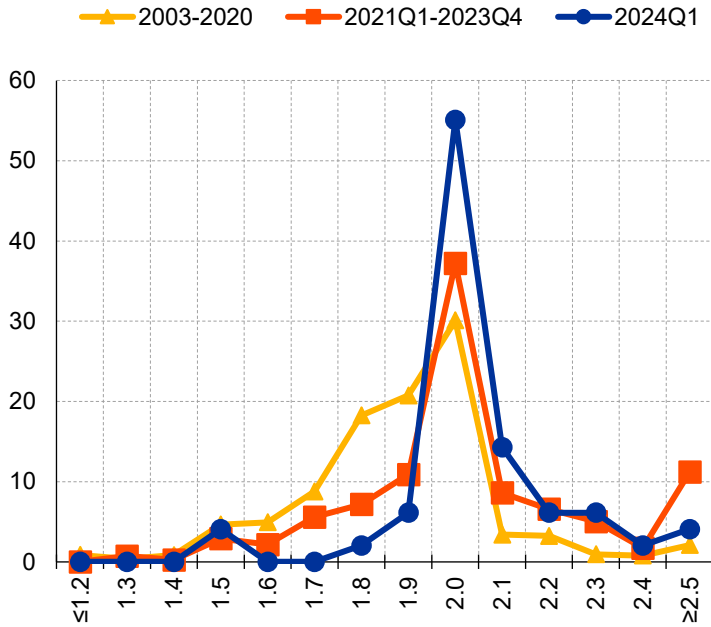
Contributions to GDP deflator
(annual percentage changes and percentage change contributions)

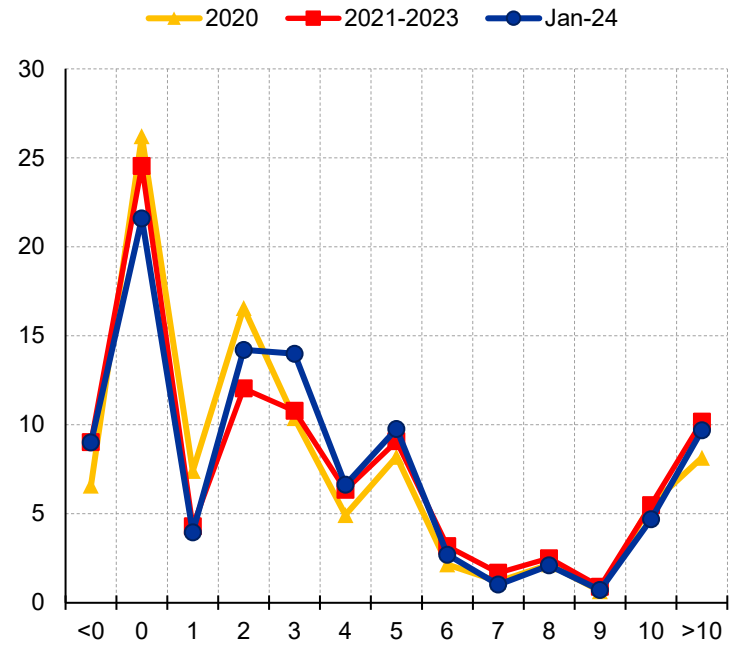Legend: Unit labour costs, Unit profits, Unit taxes, GDP deflator

Sources: Eurostat, ECB calculations.
Notes: Unit taxes refer to unit net indirect taxes defined as indirect taxes minus subsidies.
Latest observation: 2023 Q3.

SPF: Cross-sectional distribution of longer-term inflation point forecasts
(percent)

CES: Cross-sectional distribution of inflation point forecasts (3 years ahead)
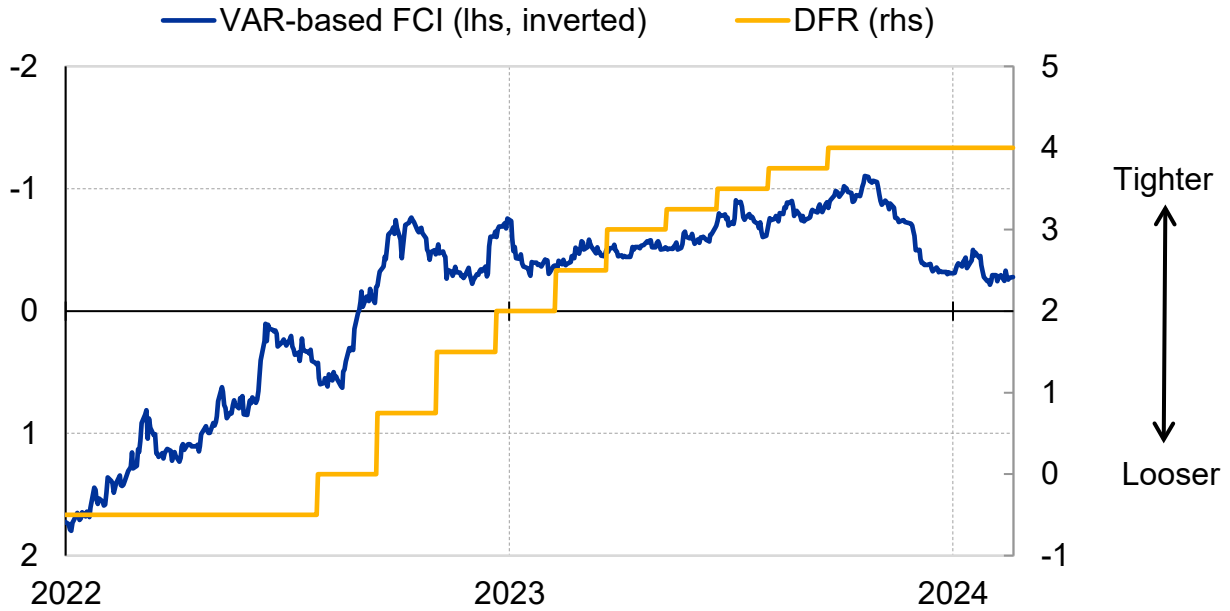(percent)

Sources: ECB, SPF.
Latest observation: SPF 2024Q1 round.

Sources: ECB, CES, and ECB calculations.
Notes: CES includes 6 countries (DE, FR, IT, ES, NL and BE) until April 2022 and 11 countries thereafter (additionally GR, AT, PT, FI, IE).
Latest observation: January 2024.

Financial conditions index and ECB main policy rate
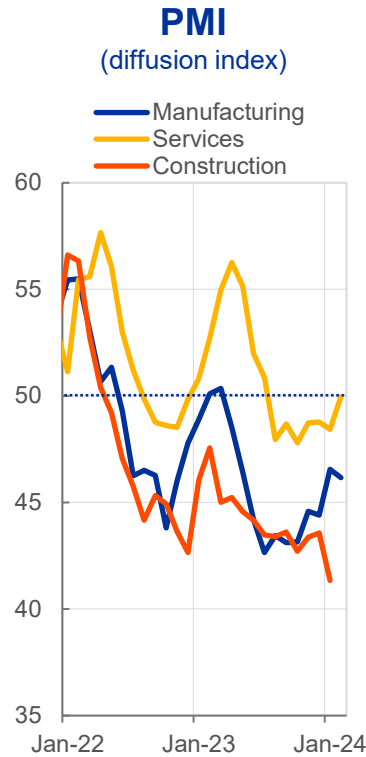(lhs: index; rhs: percentages per annum)

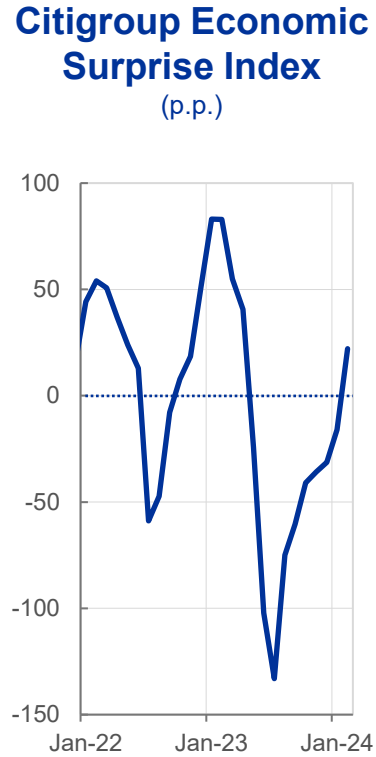Sources: Refinitiv, Bloomberg, ECB calculations.
Notes: The VAR-based FCI is constructed as weighted averages of the 1y OIS, the 10y OIS, the euro NEER-41 and the EuroStoxx Index. The weights are derived from the impulse responses of HICP inflation to a shock in each of the four variables gleaned from individual VAR models. All series has been standardised by their historical means and standard deviations.
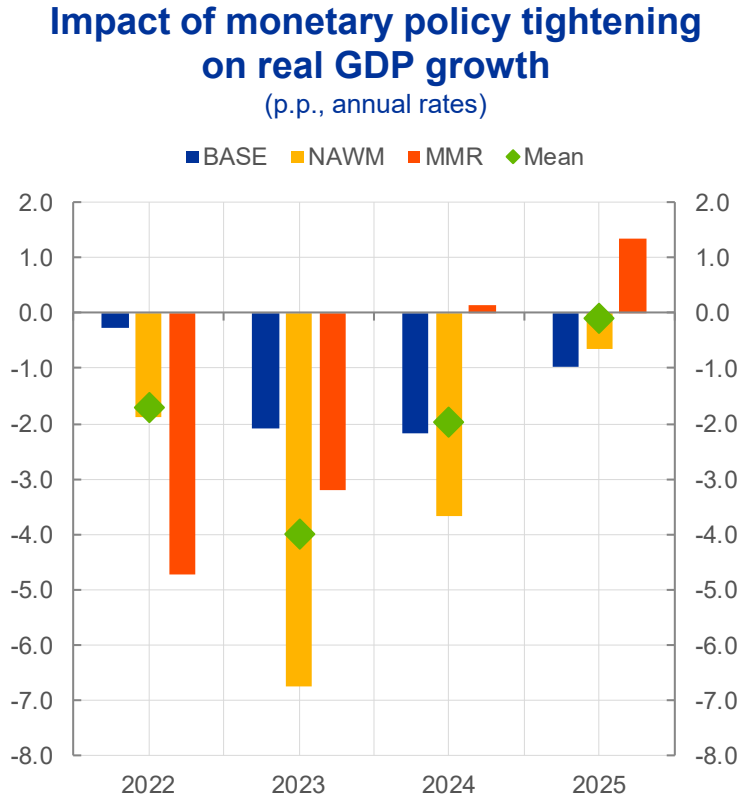Latest observation: 19 February 2024.

PMI
(diffusion index)

— Manufacturing
— Services
— Construction

Source: S&P Global.
Latest observations: manufacturing and services: February 2024; construction: January 2024.

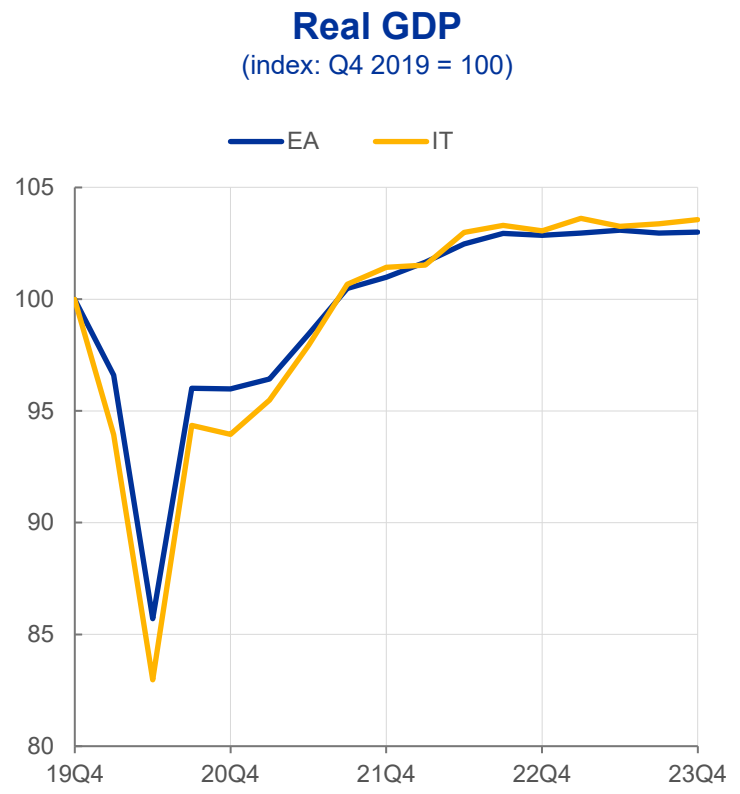**Citigroup Economic Surprise Index**
(p.p.)

Sources: Citigroup Haver Analytics, ECB staff calculations.
Notes: the charts reports monthly averages of available daily values.
Latest observation: 19 February 2024.

Impact of monetary policy tightening on real GDP growth
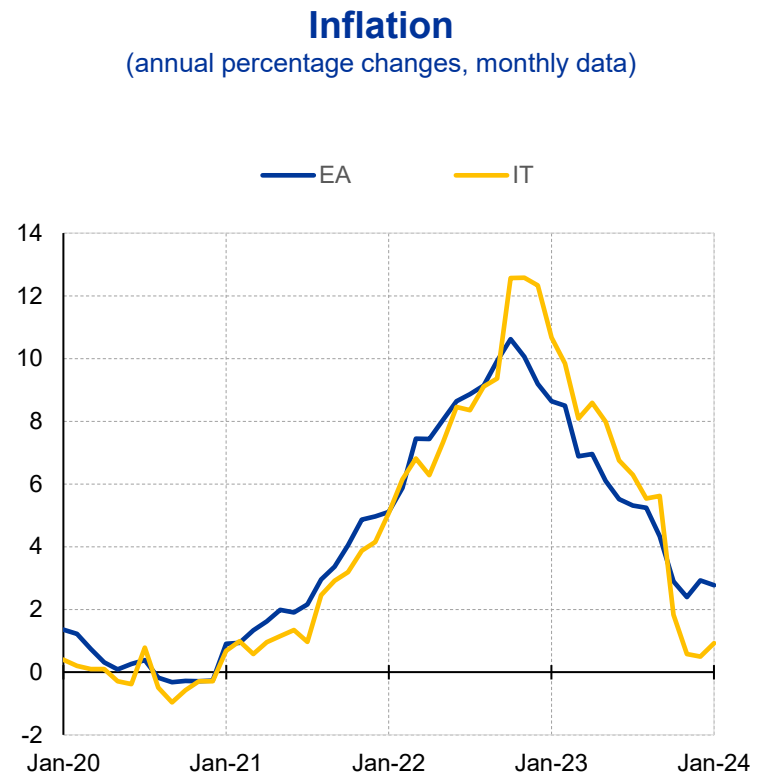(p.p., annual rates)

■ BASE ■ NAWM ■ MMR ◆ Mean

Sources: ECB calculations based on the NAWM II, the MMR model and the ECB-BASE model
Notes: This chart reports the results of a simulation involving changes to short-term rate expectations between December 2021 and February 2024, and changes to expectations regarding the ECB's balance sheet between October 2021 and February 2024.

Real GDP
(index: Q4 2019 = 100)

Sources: Eurostat and ECB staff calculations.
Latest observations: Q4 2023.

Inflation
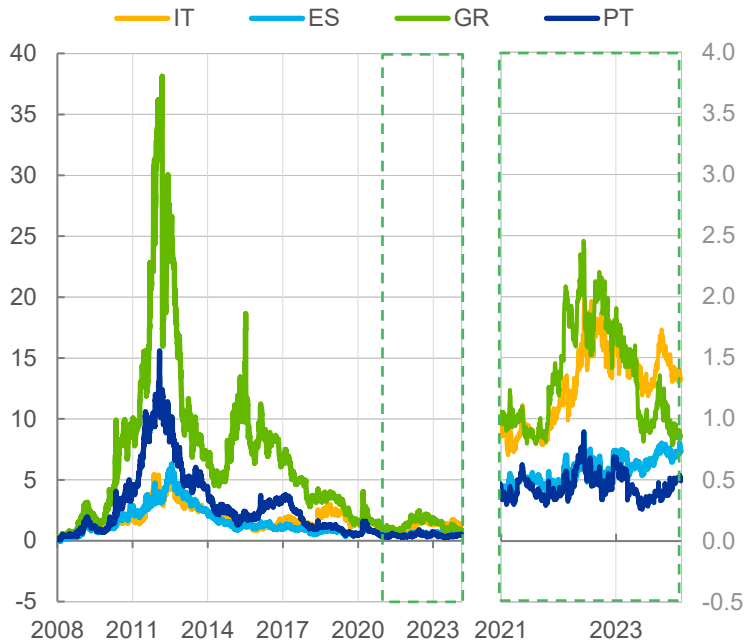(annual percentage changes, monthly data)

Sources: Eurostat and ECB staff calculations.
Latest observations: January 2024.

Italy: Sovereign spreads at moderate level, but fiscal vulnerabilities remain
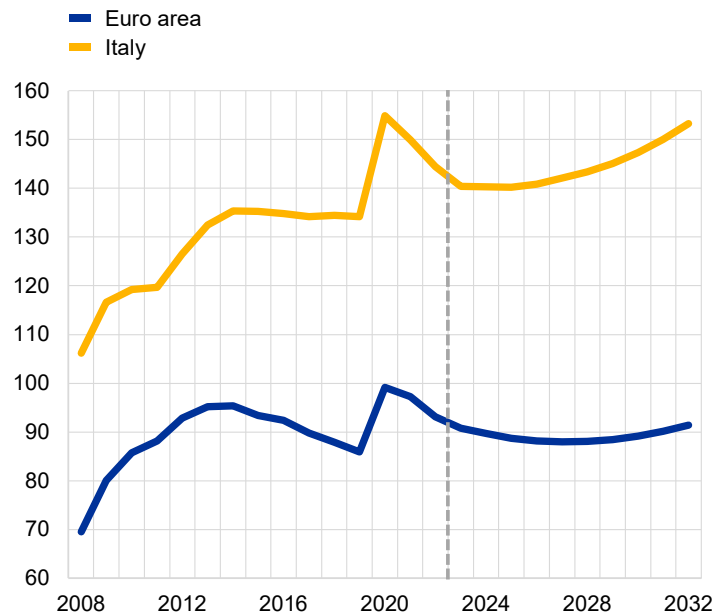
10-year sovereign to OIS spread
(percentages per annum)

Legend: IT, ES, GR, PT

Sources: Bloomberg, Refinitiv and ECB calculations.
Latest observation: 19 February 2024.

Government debt
(% of GDP)

Legend: Euro area, Italy
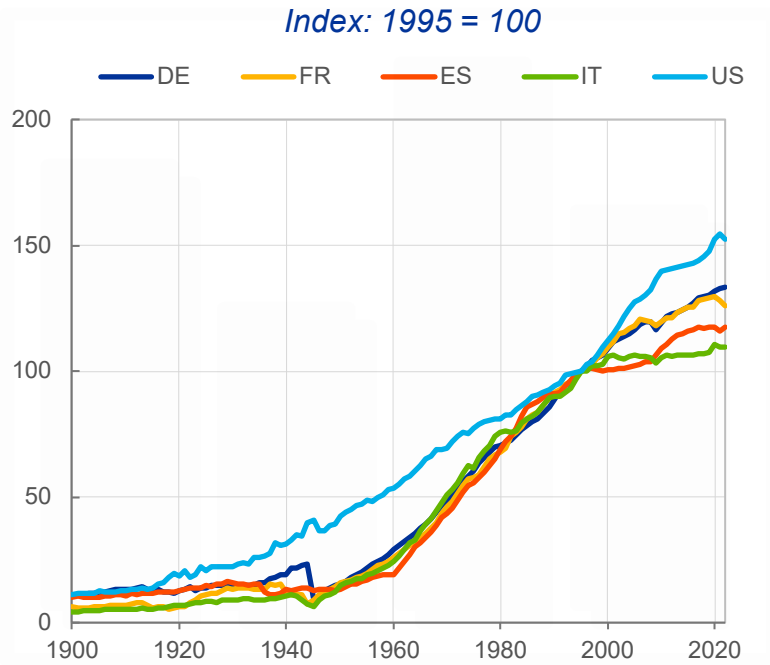
Sources: European Commission, Spring 2023 Economic Forecast.
Note: European Commission's debt outlook based on the update of the 2022 Debt Sustainability Monitor with the Spring 2023 Economic Forecast and a no-fiscal-policy change assumption beyond the two-year forecast horizon.
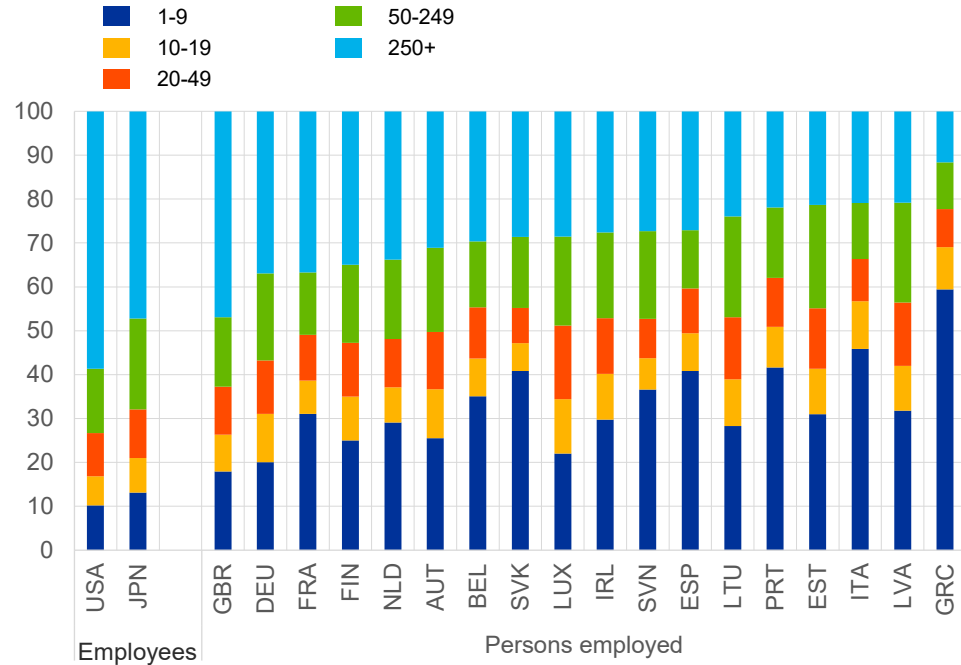Latest observation: 2022.

Italy: Loss in productivity since 1990s, partly due to high share of small firms

Long-term developments in productivity per hour worked

Index: 1995 = 100

Sources: Long-Term Productivity Database and ECB calculations.

Employment by enterprise size, business economy
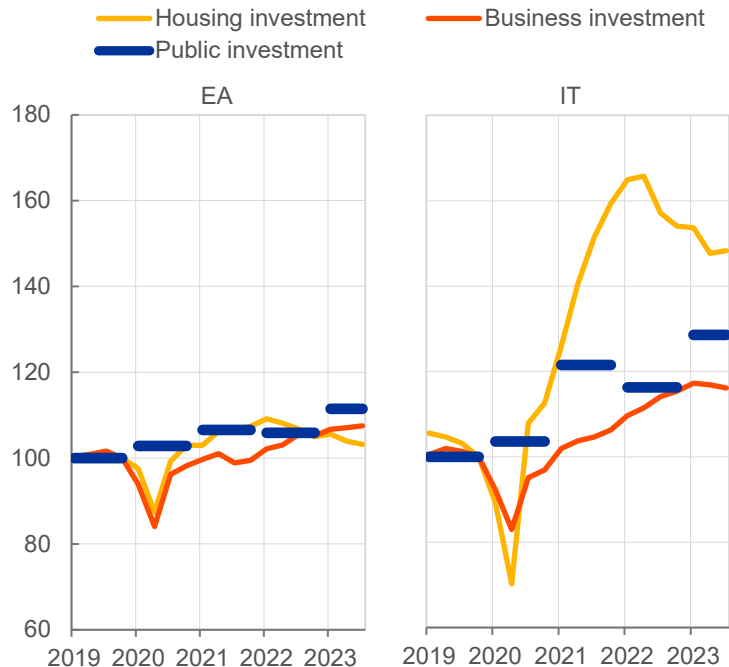### (Percentage of total employment)

Source: OECD.
Notes: Legend refers to number of employees/ persons employed at firm level.

Public and private investment
(index: 2019 = 100; Q4 2019 = 100)

— Housing investment — Business investment
— Public investment

Italy: RRF milestones and targets: breakdown by policy pillar
(percent)

■ Green transition

■ Digital transformation

■ Smart, sustainable and inclusive growth

■ Social & territorial cohesion

■ Health, and economic, social and institutional resilience

■ Policies for the next generation

Sources: European Commission (AMECO), Eurostat and ECB staff calculations.
Notes: The series for public investment have annual frequency. Business investment is computed as the difference between total investment and total construction investment. The series for EA is adjusted for Irish IPP.
Latest observations: components of private investment: Q3 2023; public investment, based on European Commission Forecasts: 2023.

Source: ECB illustration based on European Commission data.
Note: Database accessed on 6 December 2023. A Milestone or Target is counted as fulfilled if the Commission has assessed it as being satisfactorily fulfilled.

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Thank you very much for your attention!