



EUROPEAN CENTRAL BANK

EUROSYSTEM

Inflation and monetary policy

XII. New Paradigm Workshop

Forum New Economy

Berlin

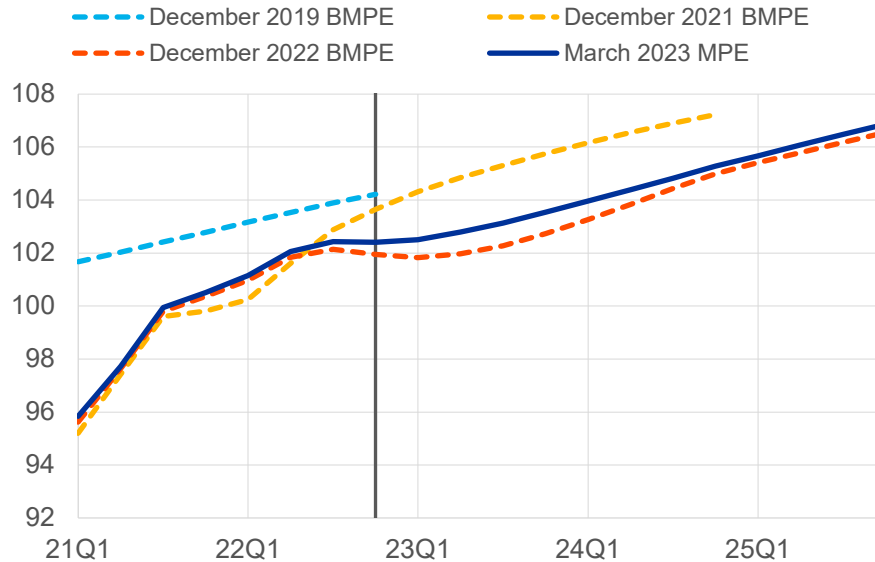
8 May 2023



Philip R. Lane
Member of the Executive Board

Recent (B)MPE projections for real GDP

(chain linked volumes, index: Q4 2019 = 100)



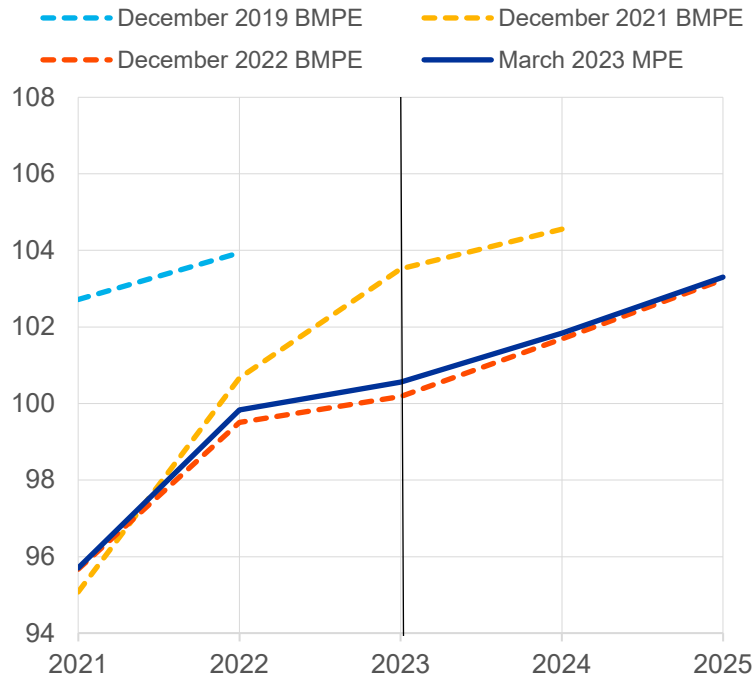
Source: (B)MPE.

Notes: MPE refers to ECB staff macroeconomic projections. BMPE refers to Eurosystem staff macroeconomic projections.

Consumption and investment projections since December 2021

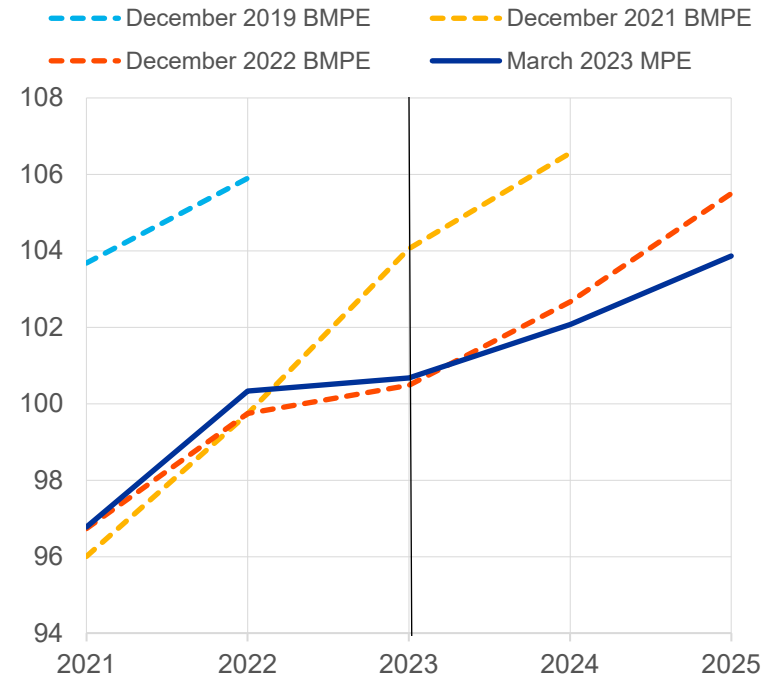
Private consumption

(chain linked volumes, index: 2019 = 100)



Total investment

(chain linked volumes, index: 2019 = 100)

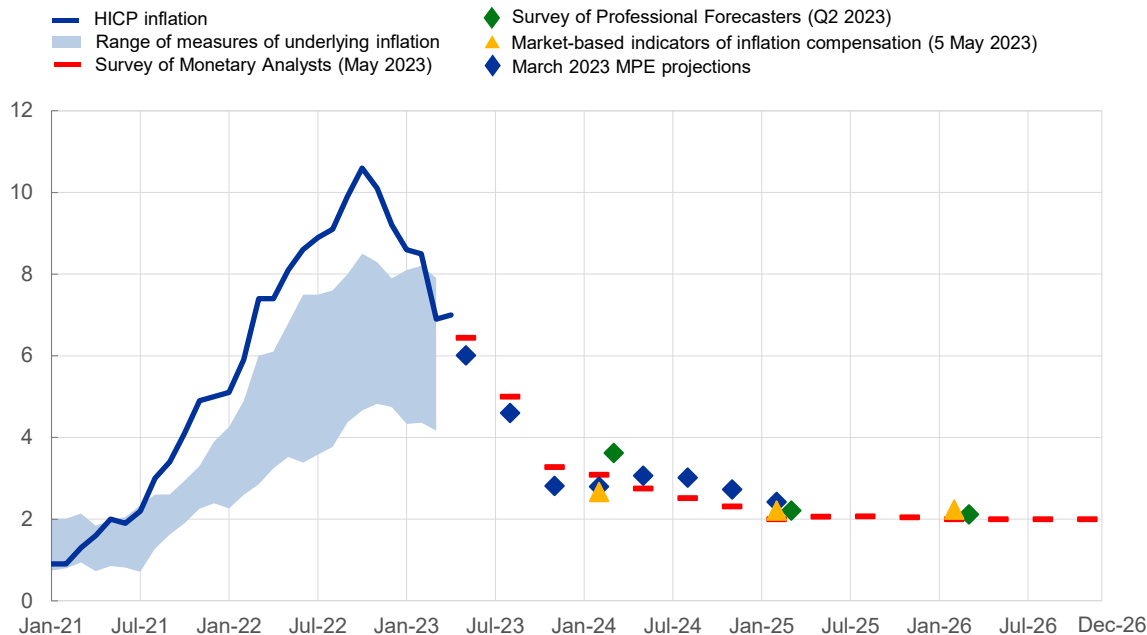


Source: (B)MPE.

Notes: MPE refers to ECB staff macroeconomic projections. BMPE refers to Eurosystem staff macroeconomic projections.

Headline inflation, measures of underlying inflation and inflation projections and expectations

(annual percentage changes)



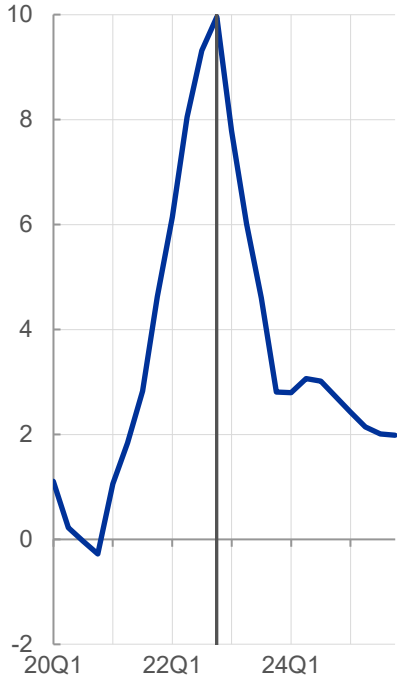
Sources: Eurostat and ECB calculations.

The latest observations are for April 2023 (flash) for HICP and March 2023 for the range of measures of underlying inflation. The latest observations for market-based indicators of inflation compensation are for 5 May 2023. The SPF data show expected annual percentage changes one-year and two-years ahead of latest HICP data at the time the Q2 2023 round was conducted (i.e. for March 2024 and March 2025) and for the calendar year 2026. The Survey of Monetary Analysts and the September 2022 ECB staff projections show quarterly forecasts. The cut-off date for data included in the ECB staff macroeconomic projections was 2 March 2023

March 2023 MPE: HICP across components

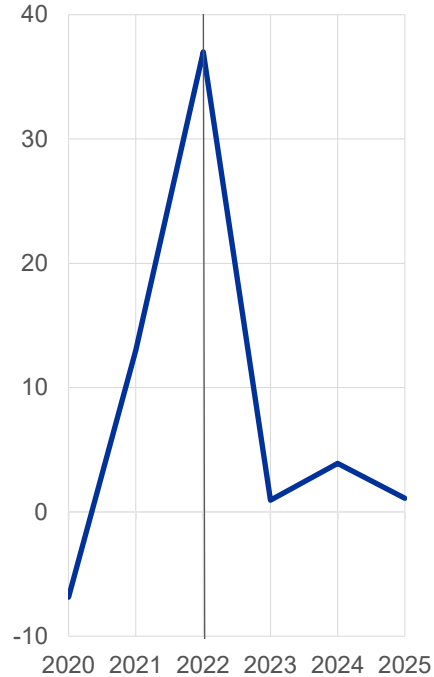
HICP

(annual percentage changes)



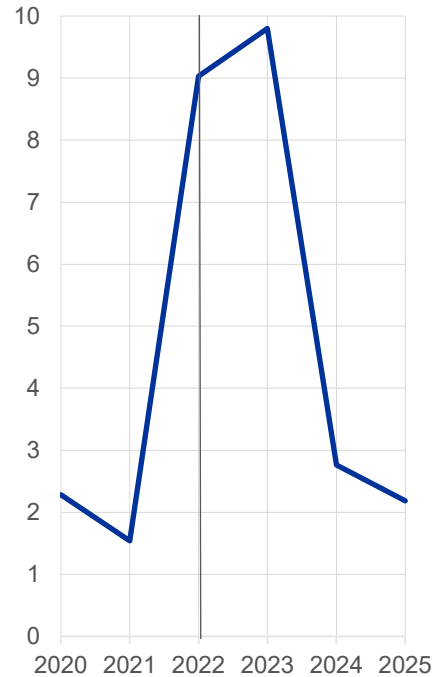
HICP energy

(annual percentage changes)



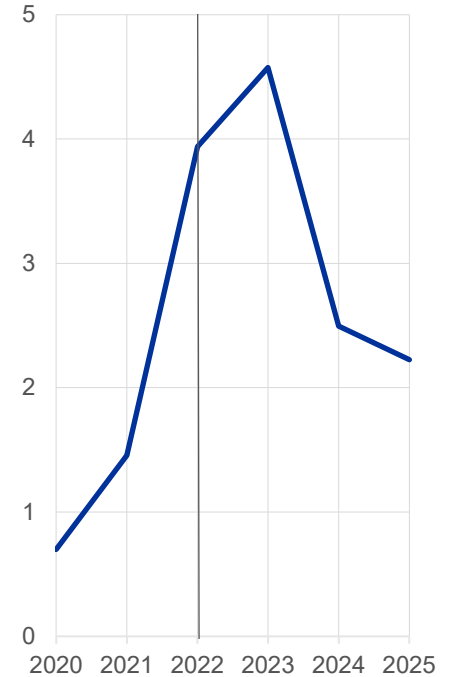
HICP food

(annual percentage changes)



HICP excl. energy and food

(annual percentage changes)



Source: March 2023 MPE.

Notes: Headline HICP is shown at quarterly frequency. The components of HICP are shown at annual frequency.

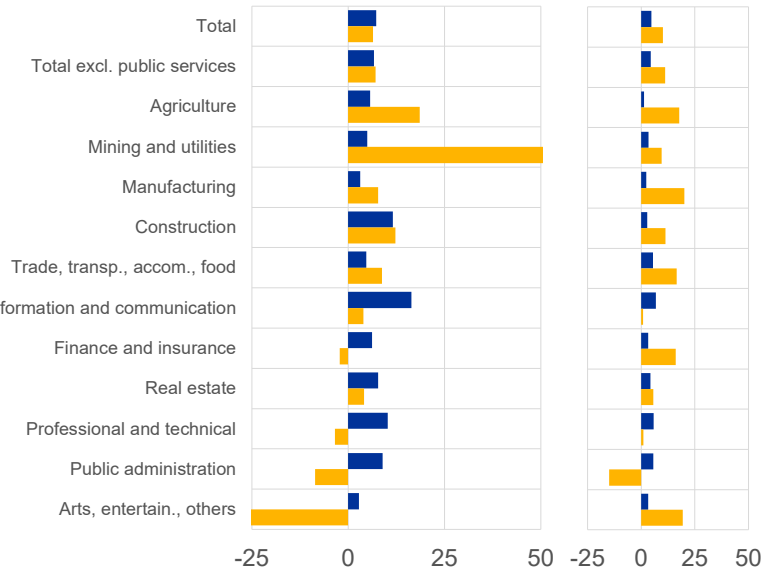
Sectoral wage and profit developments

(percentage changes over the indicated period)

■ Wages ■ Profits

Q4 2019 - Q1 2022

Q1 2022 - Q4 2022



Sources: Eurostat and ECB calculations.

Notes: Wages refer to compensation of employees, profits to gross operating surplus. Wages include income for the self-employed. In the left panel the value for mining and utilities is 54.3% and for arts, entertainment and others it is -29.4%. The latest observations are for the fourth quarter of 2022.

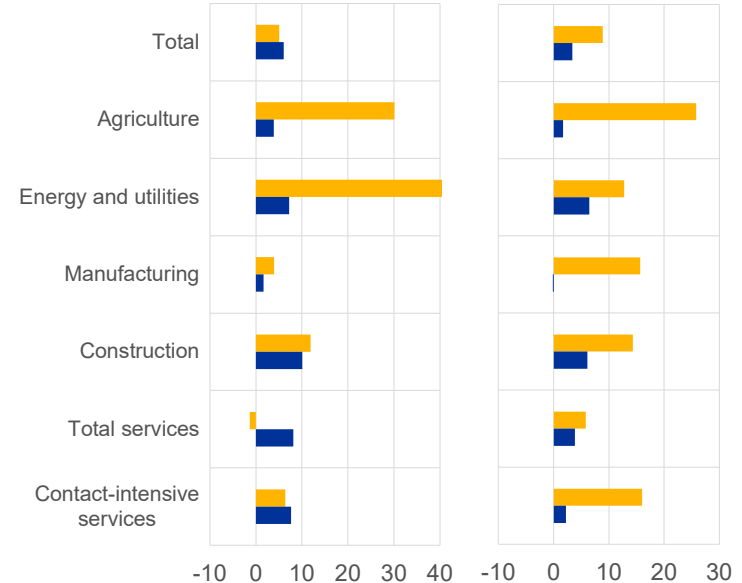
Sectoral unit profits and unit labour costs

(percentage changes over the indicated period)

■ Unit profits ■ Unit labour costs

Q4 2019 - Q1 2022

Q1 2022 - Q4 2022



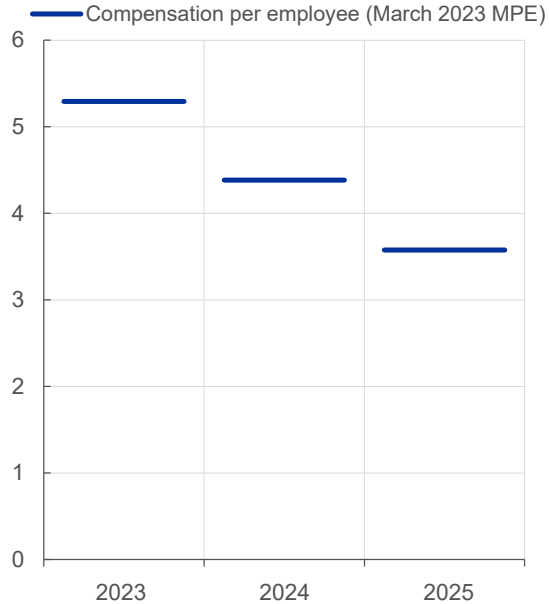
Sources: Eurostat and ECB staff calculations.

Notes: Unit profits correspond to gross operating surplus over real value added. Contact-intensive services include trade, transport, accommodation and food and arts, entertainment, recreation and other services. In the left panel the value for energy and utilities is 51.8%. The latest observations are for the fourth quarter of 2022.

March 2023 MPE: Nominal wages, real wages and unit labour costs

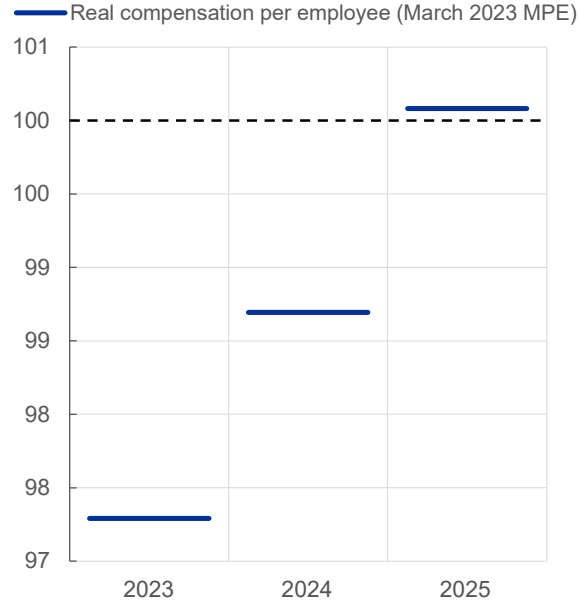
Nominal wages

(annual percentage changes)



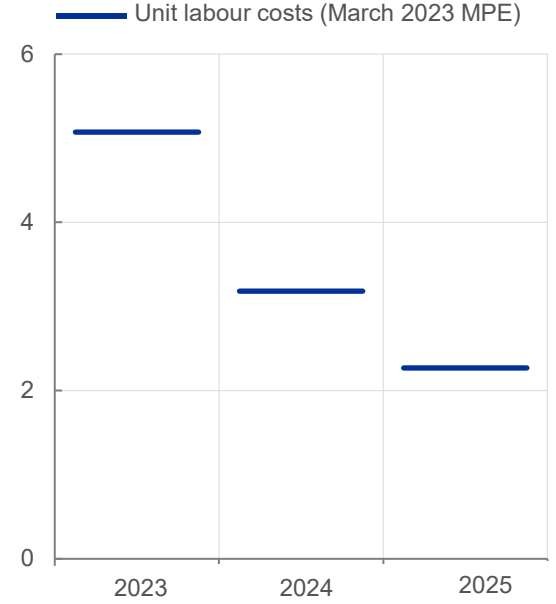
Real wages

(index: 2019 = 100; deflated by HICP)



Unit labour costs

(annual percentage changes)



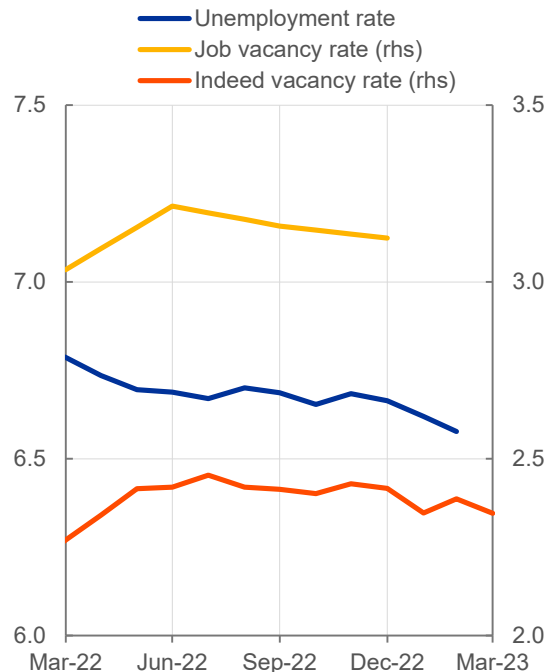
Sources: March 2023 ECB staff macroeconomic projections, Eurostat and ECB calculations.

Note: The latest observation is for the fourth quarter of 2022.

Unemployment, employment and labour force

Unemployment and job vacancy rates

(percentages of the labour force; percentages of jobs)

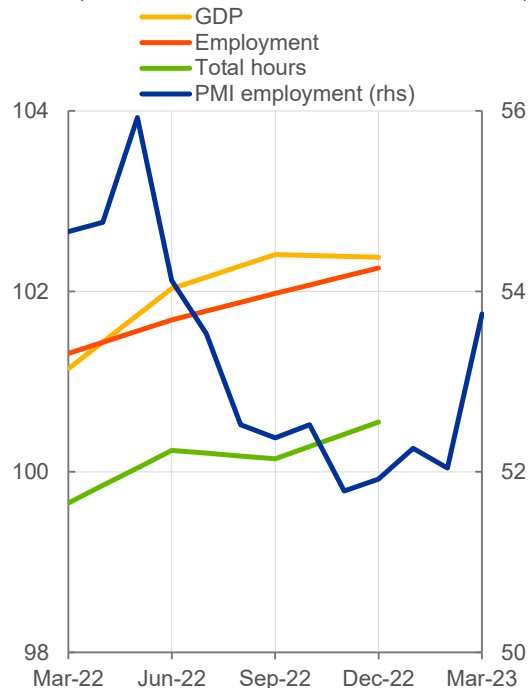


Sources: Eurostat, Indeed and ECB calculations.

Notes: The Indeed rate is computed as job postings over job postings plus implied monthly employment. The latest observations are for February 2023 for unemployment, the fourth quarter of 2022 for the job vacancy rate and March 2023 for the Indeed vacancy rate.

GDP, employment and hours worked

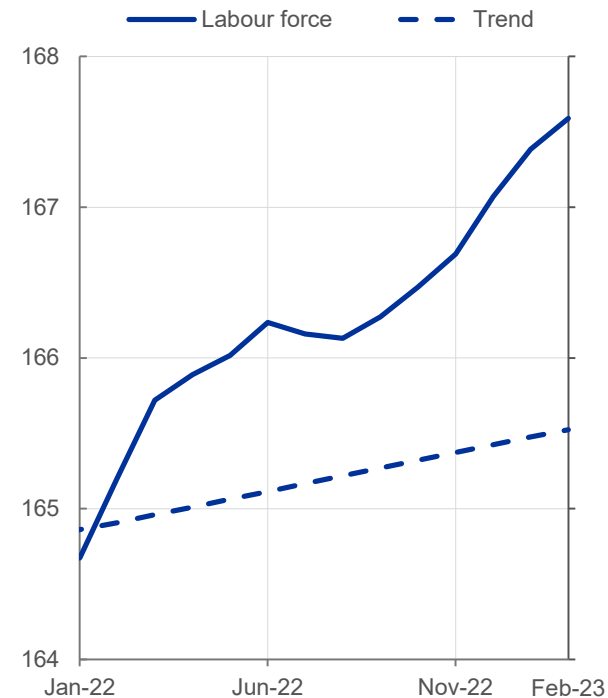
(index: Q4 2019 = 100; diffusion index)



Sources: Eurostat, S&P Global and ECB calculations.

Note: The latest observations are for March 2023 for PMI and the fourth quarter of 2022 for the rest.

Labour force (millions)



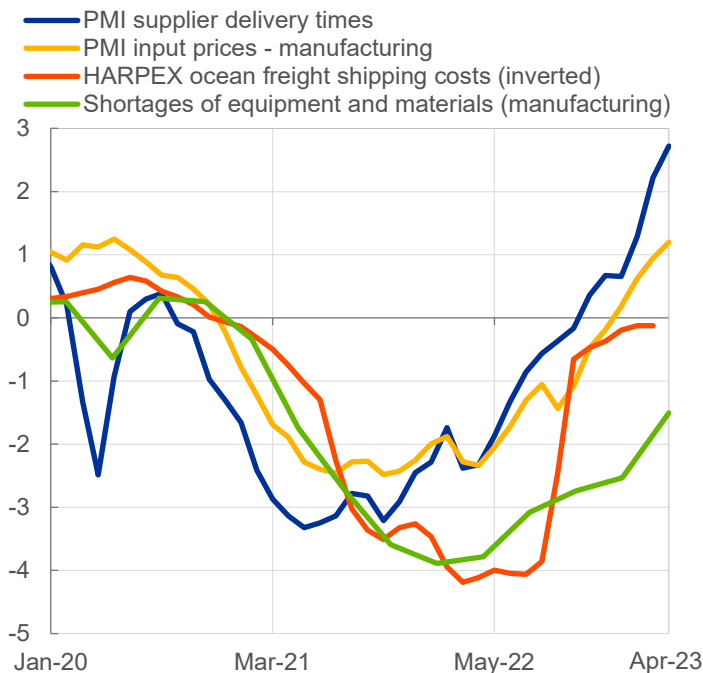
Sources: Eurostat and ECB calculations.

Notes: The linear trend is computed for the period January 2005 and December 2019. The latest observations are for February 2023.

Supply bottlenecks and the income effect of terms of trade

Supply bottleneck indicators

(standardised)

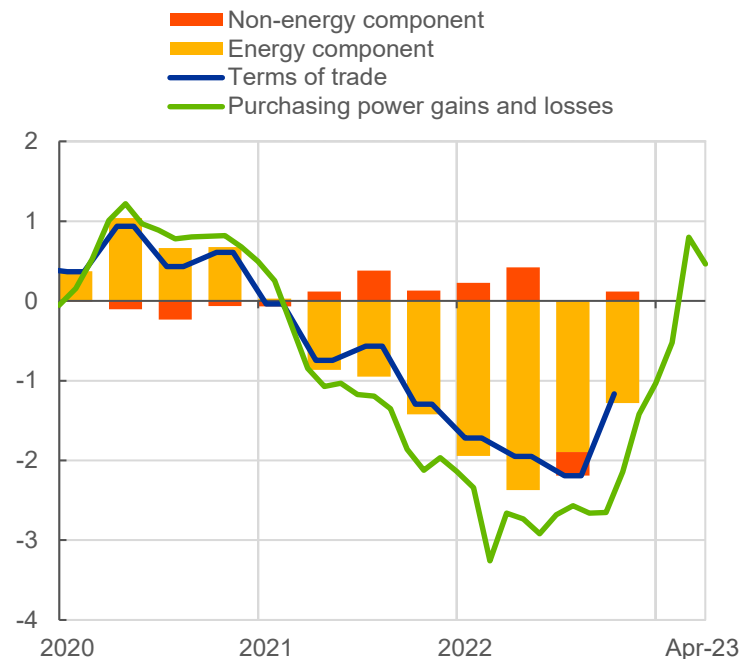


Sources: Eurostat, S&P global, DG-ECFIN and ECB calculations.

Notes: The series is standardised over the period 2000-23. The latest observations are for the second quarter of 2023 (survey conducted in April) for European Commission equipment shortages, April 2023 for PMI supplier delivery times and PMI input prices - manufacturing, and March 2023 for HARPEX ocean freight shipping costs.

Income effect of terms of trade and purchasing power gains/losses from energy inflation

(quarterly year-on-year percentage points change)

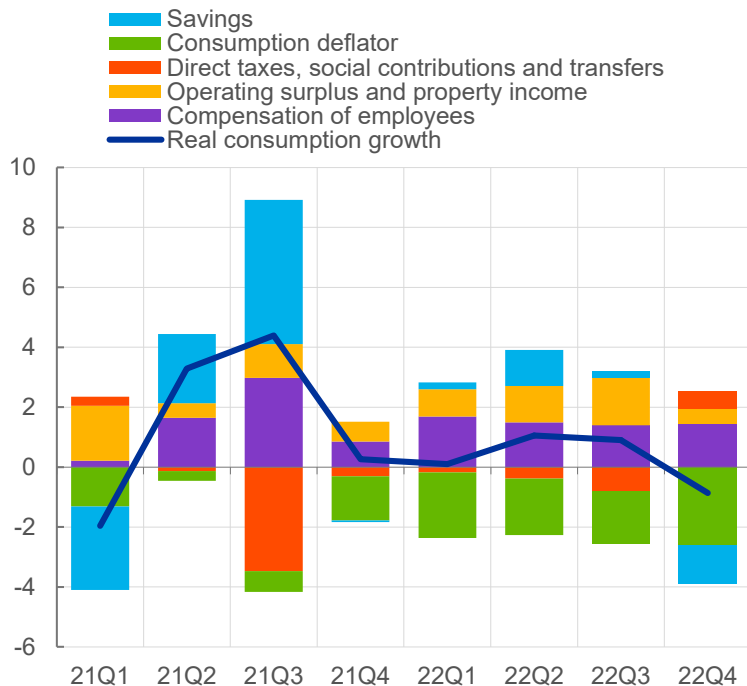


Sources: Eurostat and ECB calculations.

Notes: The purchasing power gains/losses are computed as the year-on-year percentage change in the real price of energy weighted by the nominal energy expenditure share, following Edelstein and Kilian (2009). A negative value indicates a loss in purchasing power. The income effect of terms of trade is calculated by taking the difference between export and import price changes weighted by their previous year values, as a percentage share of GDP. The latest observations are for April 2023 for purchasing power gains and losses and the fourth quarter of 2022 for the rest.

Consumption growth decomposition

(quarter-on-quarter percentage changes and percentage point contributions)

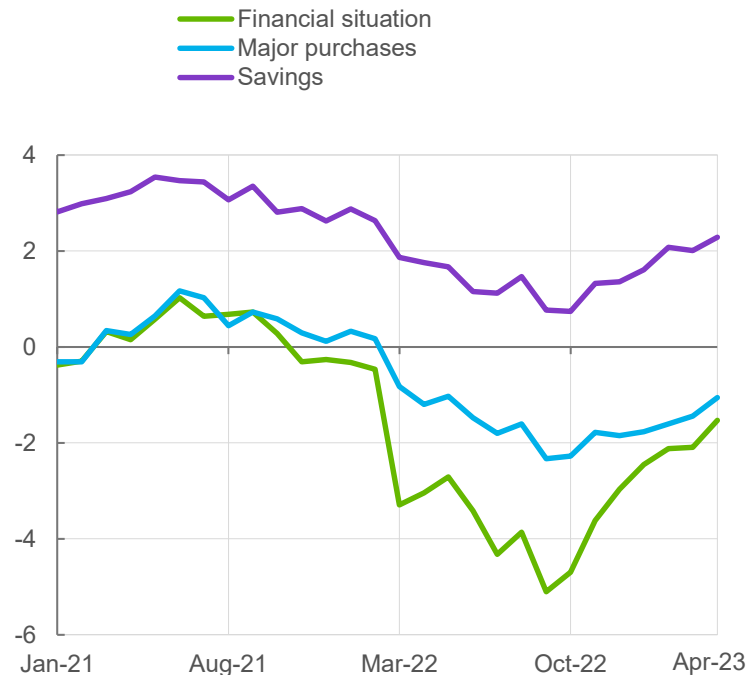


Sources: DG-ECFIN, Eurostat and ECB calculations.

Note: The latest observations are for the fourth quarter of 2022.

Household expectations

(standardised percentage balances)



Sources: DG-ECFIN and ECB calculations.

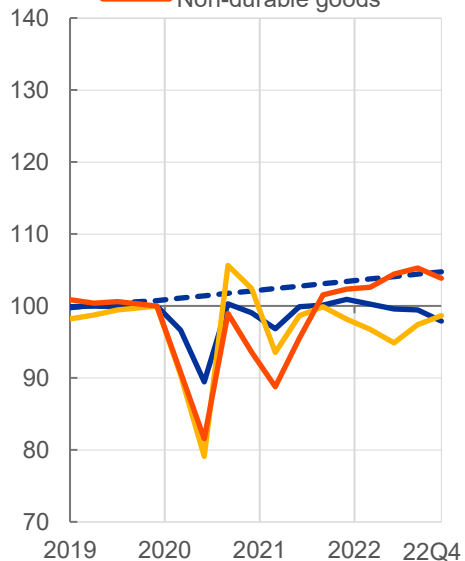
Note: The series are standardised using data from 2000 to 2019. The latest observations are for April 2023.

Goods and services consumption in the euro area and United States

Euro area goods consumption

(index: Q4 2019 = 100)

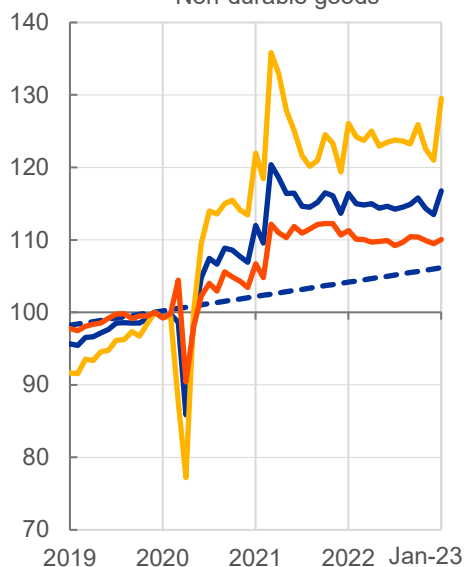
— Total goods
 - - - Total goods trendline
 — Durable goods
 — Non-durable goods



United States goods consumption

(index: December 2019 = 100)

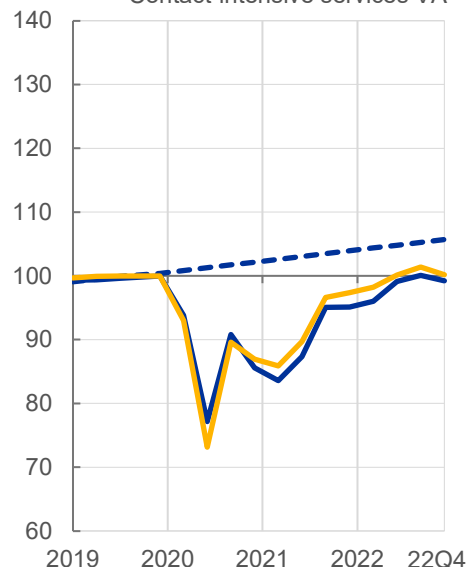
— Total goods
 - - - Total goods trendline
 — Durable goods
 — Non-durable goods



Euro area services consumption

(index: Q4 2019 = 100)

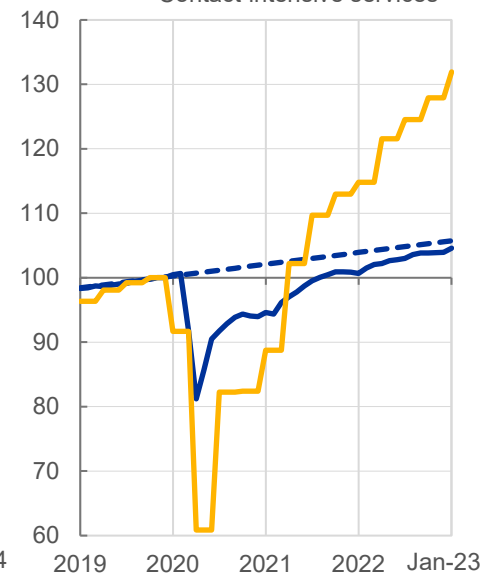
— Total services
 - - - Total services trendline
 — Contact-intensive services VA



United States services consumption

(index: December 2019 = 100)

— Total services
 - - - Total services trendline
 — Contact-intensive services



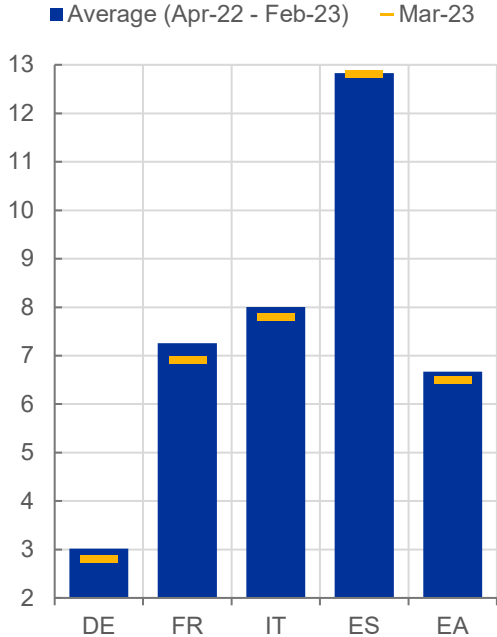
Sources: Eurostat, Haver Analytics and ECB calculations.

Notes: Non-durable goods for the euro area include semi-durable goods. Contact-intensive services value added (VA) for euro area include wholesale and retail trade, transport, accommodation and food service activities. Contact-intensive services for United States include accommodation and food services activities and are only available as quarterly series (indexed on Q4 2019). The trendlines (dashed) are based on pre-pandemic total goods/services consumption. The latest observations are for the fourth quarter of 2022 for the euro area and January 2023 for the United States.

Unemployment, employment and hours worked

Unemployment rate

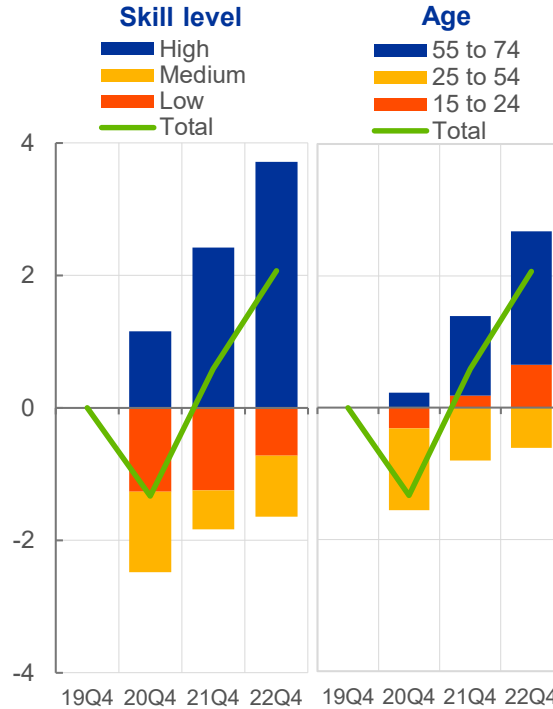
(percentages of the labour force)



Source: Eurostat.
Note: The latest observations are for March 2023.

Labour force growth

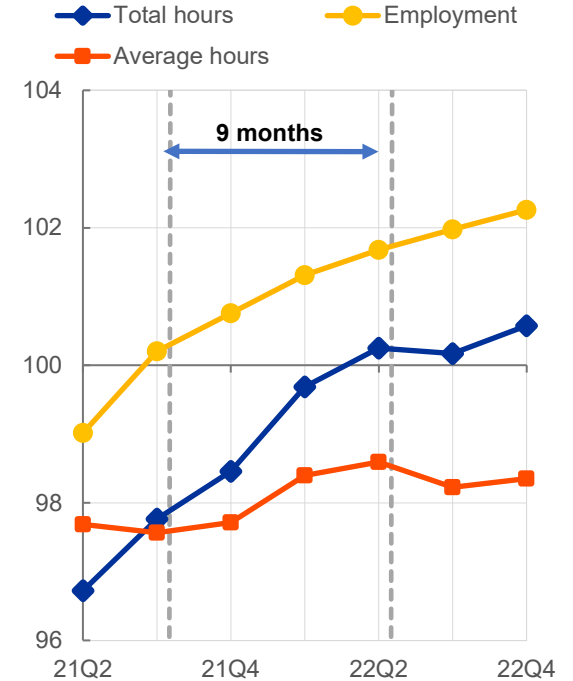
(percentage changes with respect to Q4 2019, by skill and age)



Source: Eurostat.
Notes: Labour force growth is relative to the fourth quarter of 2019. The latest observations are for the fourth quarter of 2022.

Total hours, employment and average hours

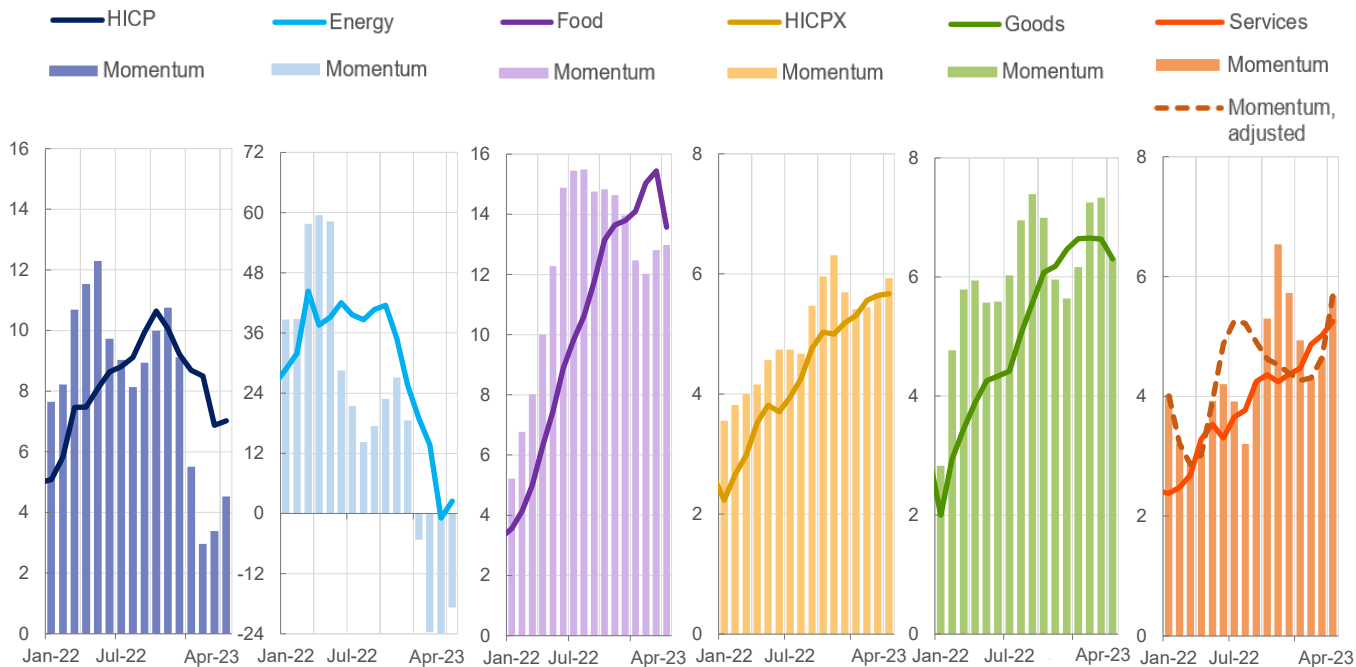
(index: Q4 2019 = 100)



Source: Eurostat.
Note: The latest observations are for the fourth quarter of 2022.

Inflation momentum for HICP and sub-components

(annual percentage changes; annualised 3-month-on-3-month percentage changes)



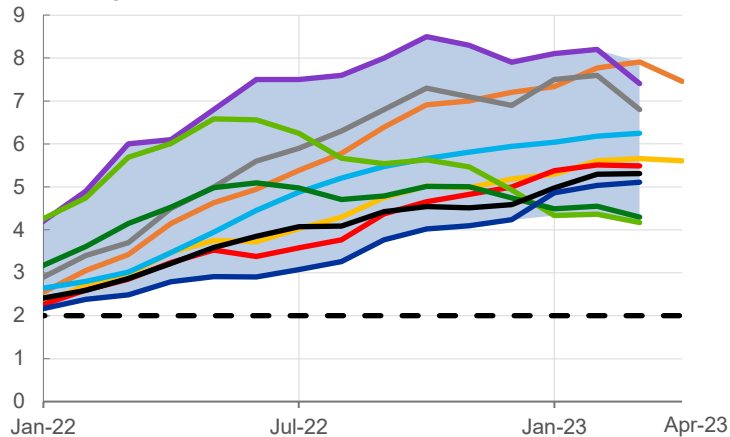
Sources: Eurostat and ECB calculations

Notes: Momentum is defined as annualised 3-month-on-3-month rates, seasonally adjusted data. HICPX: HICP excluding energy and food. The adjusted momentum series for services corresponds to annualised 3-month-on-3-month rates excluding the effects of the 9 euro ticket in Germany. The latest observations are for April 2023 (flash).

Indicators of underlying inflation

(annual percentage changes)

- HICP excluding energy and food (HICPX)
- HICP excluding energy, food, travel-related items and clothing (HICPXX)
- HICP excluding energy
- Trimmed mean (10%)
- Trimmed mean (30%)
- Supercore
- PCCI (persistent and common component of inflation)
- PCCI excluding energy
- Domestic inflation
- Wage-sensitive HICPX



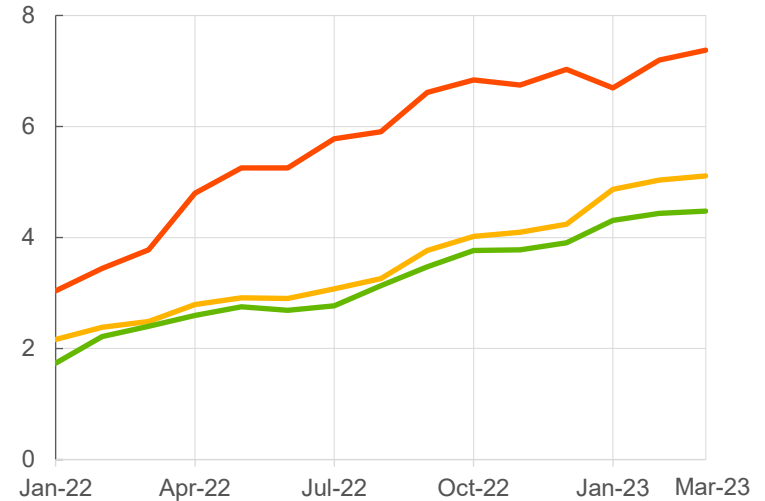
Sources: Eurostat and ECB calculations.

Note: The latest observations are for April 2023 (flash) for HICPX and HICP excluding energy and March 2023 for the rest.

Role of energy and wages in core inflation

(annual percentage changes)

- HICPX wage-sensitive
- HICPX energy-sensitive
- HICPX not energy-sensitive

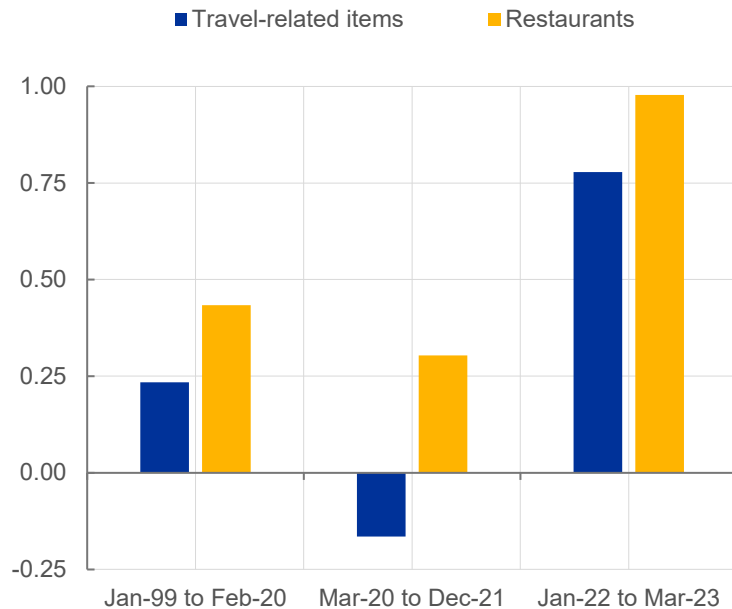


Sources: Eurostat and ECB calculations.

Note: The latest observations are for March 2023.

Average contribution to services inflation

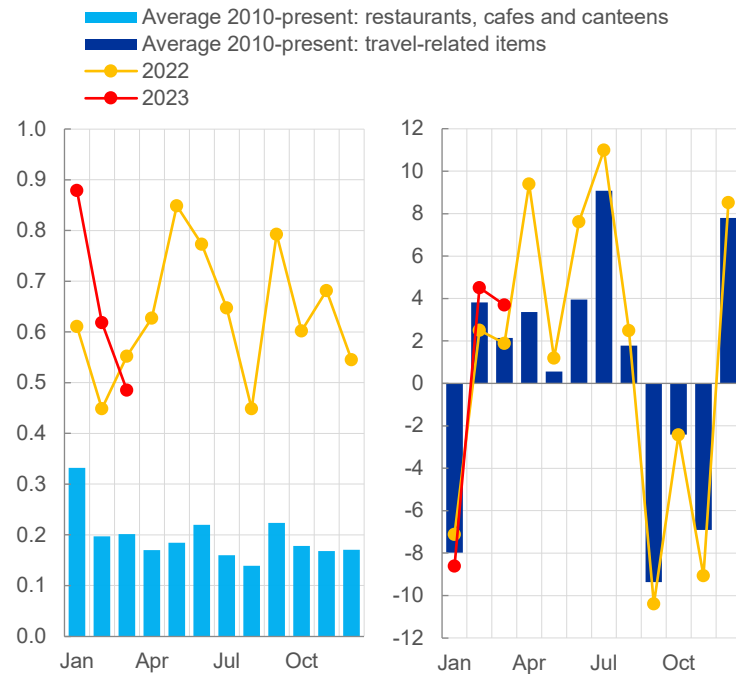
(percentage point contributions)



Sources: Eurostat and ECB calculations.
Note: The latest observations are for March 2023.

Inflation momentum in services subcomponents

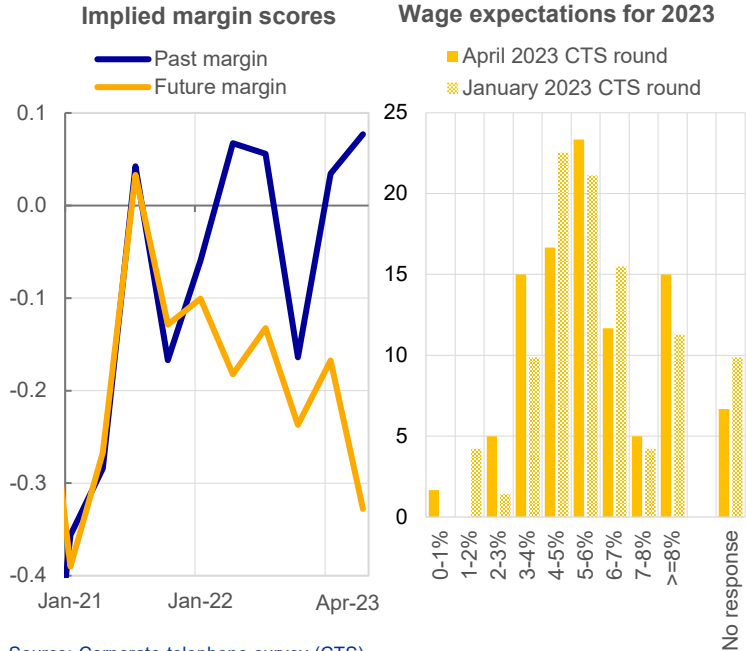
(month-on-month percentage changes)



Sources: Eurostat and ECB calculations.
Note: The latest observations are for March 2023.

Information on profit margins and wage expectations from the CTS

(left panel: average of CTS scores, right panel: percentage of responses)

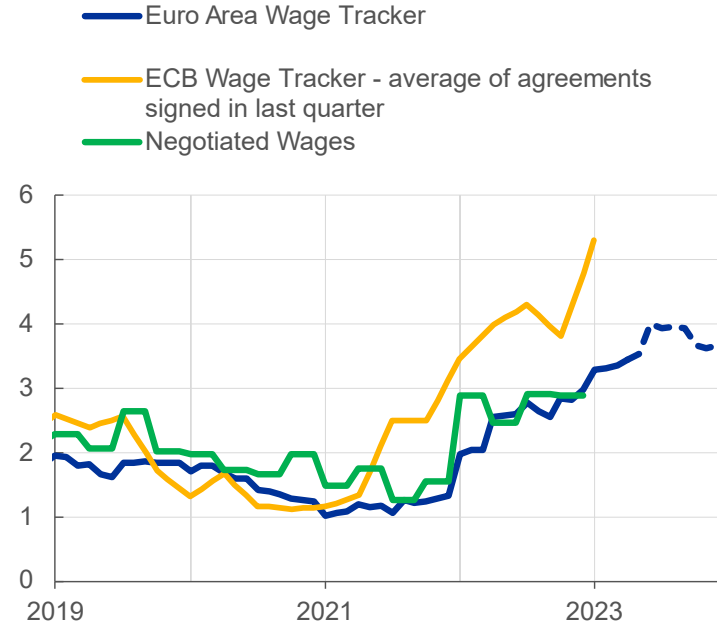


Source: Corporate telephone survey (CTS).

Notes: Left panel: the score is calculated as the difference between the selling price score and a simple average of the input cost and wage scores. It should be noted that, while past and future selling and input price scores refer to developments in the previous and next quarters, past and future wage scores refer to developments in the previous and next year. Right panel: bins include the respective lower bound.

Real-time wage trackers

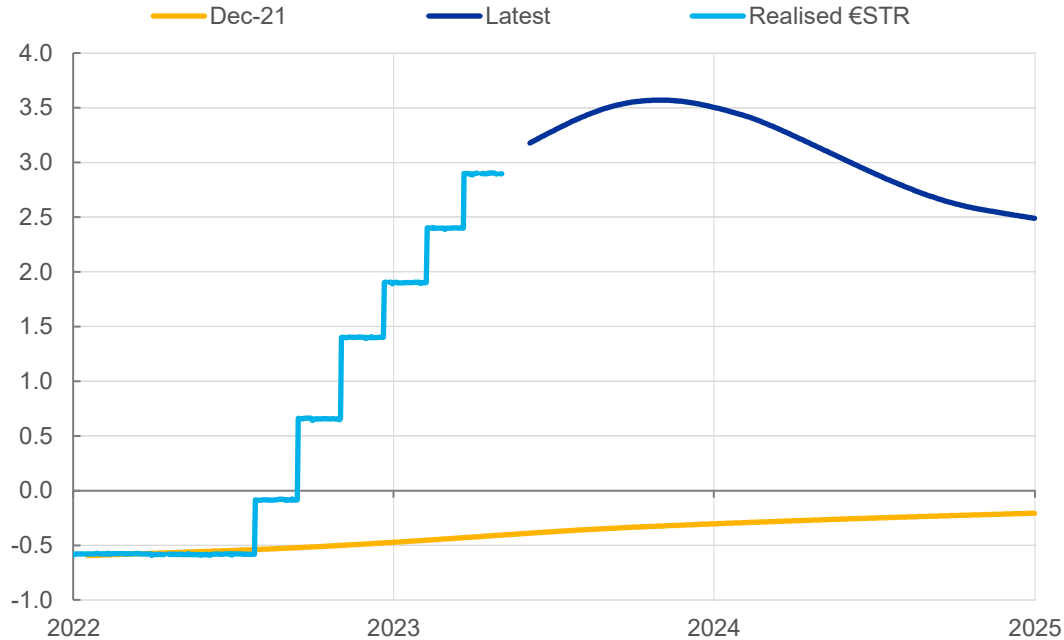
(annual percentage changes)



Sources: Euro area wage tracker calculated on micro data on wage agreements provided by NCBs (DE, FR, ES, GR, AT, IT) and AAVN employer association (NL); Indeed wage tracker based on Adrjan and Lydon (2022).

Notes: Negotiated wages series aggregate based on ES, IT, GR, AT, DE, NL, FR. The dashed line is the future wage growth in the non-expiring contracts. The latest observations are for 17 April 2023 for the wage tracker, March 2023 for the Indeed wage tracker, February 2023 for negotiated wages and Q1 2023 for wage growth in latest agreements.

€STR forward curve (percentages per annum)



Sources: Bloomberg and ECB calculations.

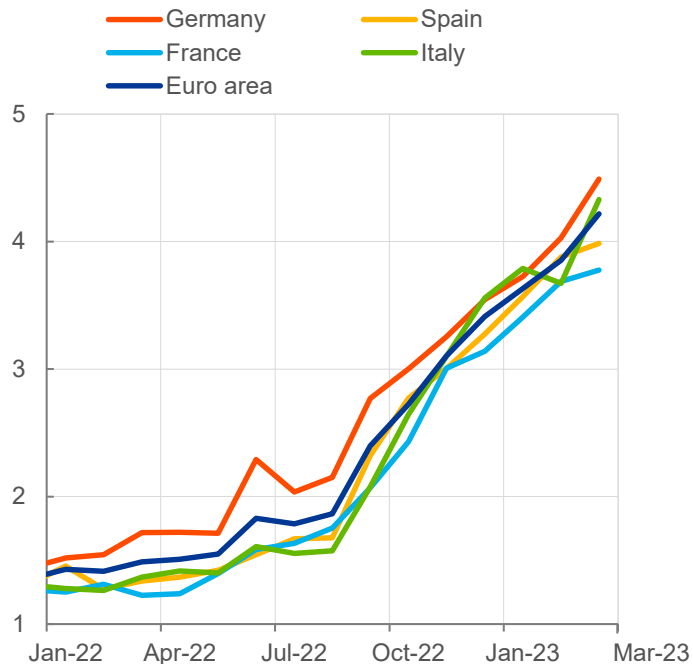
Notes: The December 2021 curve refers to the day before the Dec 2021 GovC (15 Dec 2021).

Latest observation: 5 May 2023 for realised €STR and latest forward curve.

Bank lending rates for firms and households for house purchase

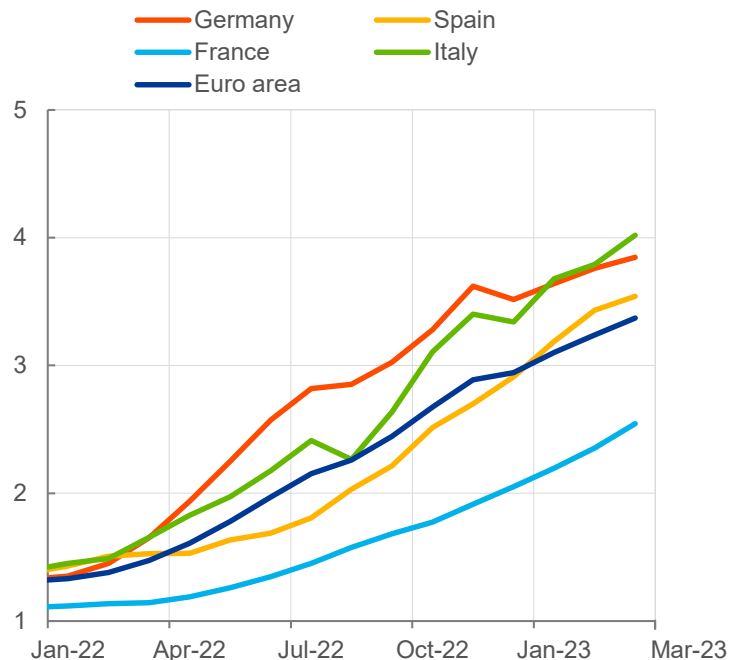
Lending rates to firms

(percentages per annum)



Lending rates to households for house purchase

(percentages per annum)



Source: ECB (MIR).

Notes: The indicator for the total cost of borrowing for firms is calculated by aggregating short-term and long-term rates using a 24-month moving average of new business volumes. The latest observations are for March 2023.

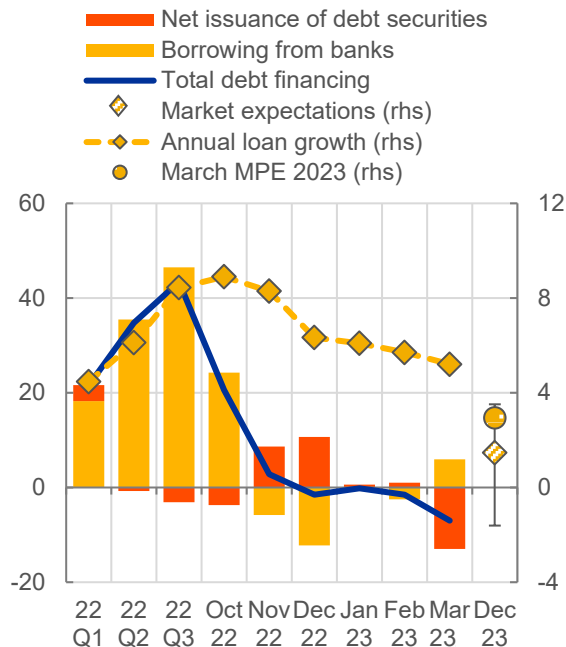
Source: ECB (MIR).

Note: The indicator for the total cost of borrowing for households for house purchase is calculated by aggregating short-term and long-term rates using a 24-month moving average of new business volumes. The latest observations are for March 2023.

Firm debt financing, credit standards and loan demand

Net debt financing of firms

(lhs: average monthly flows in EUR billions, rhs: annual percentage changes)

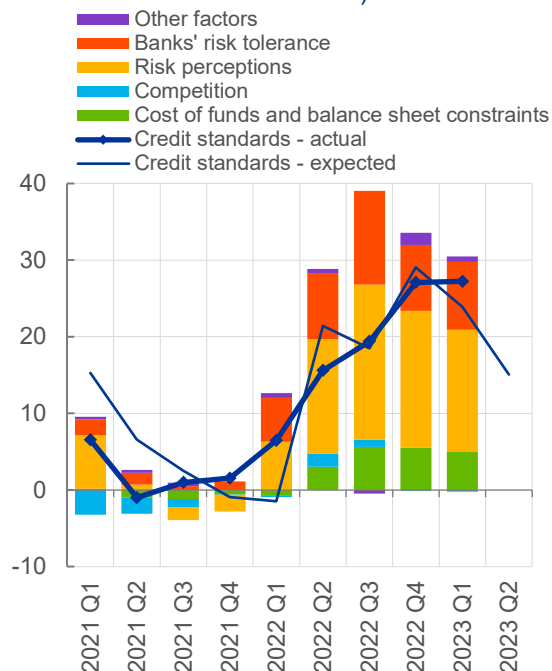


Sources: ECB (BSI, CSEC), March MPE 2023 projections and ECB calculations.

Notes: The dashed diamond shows the median annual growth rate of bank loans as reported by IBES forecasters. Whiskers correspond to 16th and 84th percentiles. Distribution weighted by realised loan volume as of year-end 2022. Based on a sample of 143 forecasts covering 44 banks, submitted between 20 January and 10 March 2023. The latest observation is for March 2023.

Changes in credit standards for loans to firms

(net percentages of banks reporting a tightening or an increase)

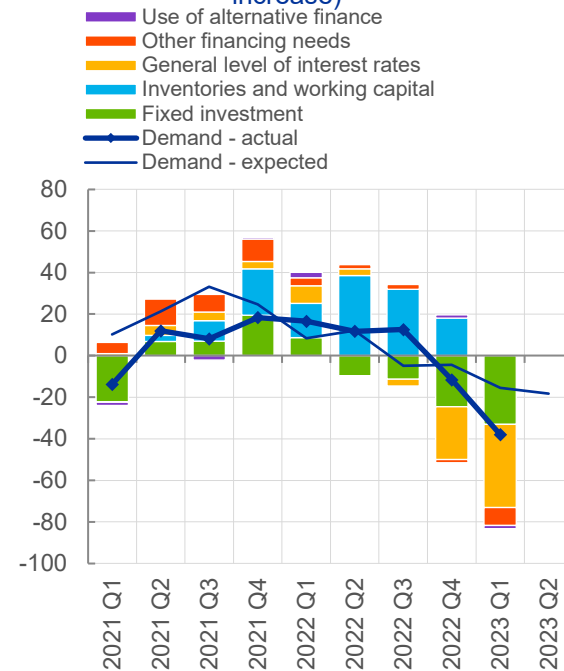


Source: ECB Bank Lending Survey.

Notes: Net percentages refer to the difference between the percentages of banks reporting a tightening (an increase) and the percentages of banks reporting an easing (a decrease). "Other factors" refer to further factors which were mentioned by banks as having contributed to changes in credit standards. The latest observations are for the first quarter of 2023 (April 2023 BLS).

Changes in demand for loans to firms

(net percentages of banks reporting an increase)

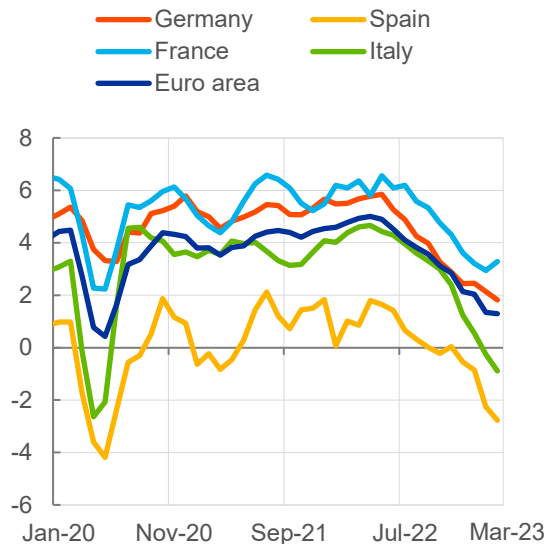


Source: ECB Bank Lending Survey.

Notes: "Other financing needs" are the unweighted average of "M&A and corporate restructuring" and "debt refinancing/restructuring and renegotiation"; "Use of alternative finance" is the unweighted average of "internal financing", "loans from other banks", "loans from non-banks", "issuance/redemption of debt securities" and "issuance/redemption of equity". The latest observations are for the first quarter of 2023 (April 2023 BLS).

Household loans, credit standards and loan demand

Loans to households growth (3-month annualised growth rates)

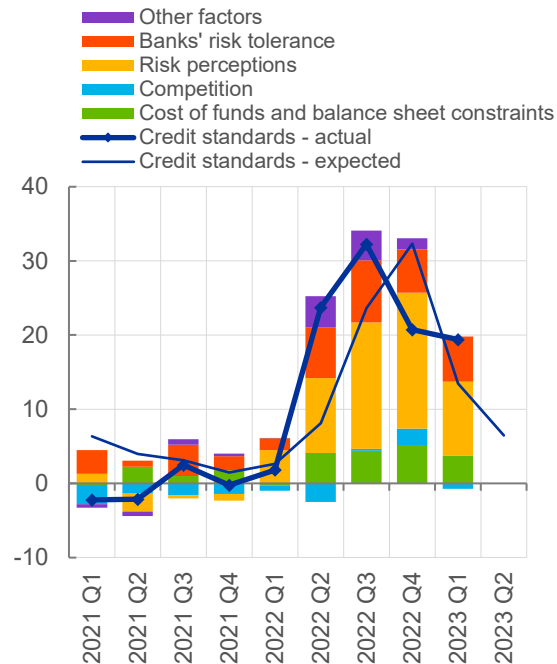


Sources: ECB (MIR, BSI).

Note: Loans are adjusted for sales, securitisation and cash pooling activities. The latest observations are for March 2023.

Changes in credit standards for loans to households for house purchase

(net percentages of banks reporting a tightening or an increase)

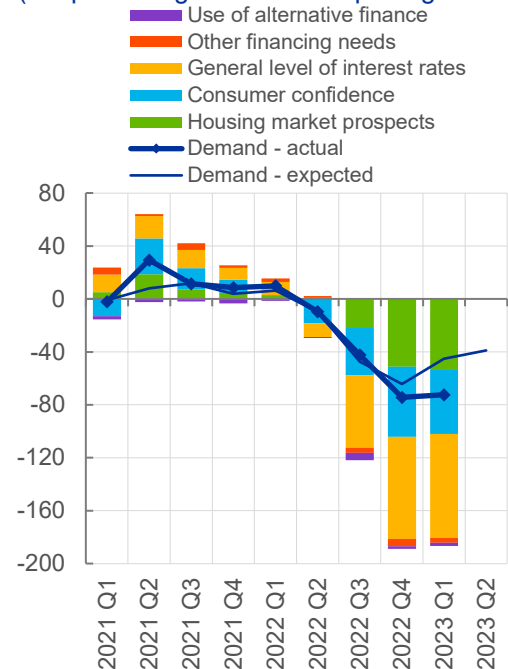


Source: ECB Bank Lending Survey.

Notes: Net percentages refer to the difference between the percentages of banks reporting a tightening (an increase) and the percentages of banks reporting an easing (a decrease). "Other factors" refer to further factors which were mentioned by banks as having contributed to changes in credit standards. The latest observations are for the first quarter of 2023 (April 2023 BLS).

Changes in demand for loans to households for house purchase

(net percentages of banks reporting an increase)



Source: ECB Bank Lending Survey.

Notes: "Other financing needs" are the unweighted average of "M&A and corporate restructuring" and "debt refinancing/restructuring and renegotiation"; "Use of alternative finance" is the unweighted average of "internal financing", "loans from other banks", "loans from non-banks", "issuance/redemption of debt securities" and "issuance/redemption of equity". The latest observations are for the first quarter of Q1 2023 (April 2023 BLS).

“Our future decisions will ensure that the policy rates will be brought to levels sufficiently restrictive to achieve a timely return of inflation to our two per cent medium-term target and will be kept at those levels for as long as necessary. We will continue to follow a data-dependent approach to determining the appropriate level and duration of restriction.

In particular, our policy rate decisions will continue to be based on our assessment of the inflation outlook in light of the incoming economic and financial data, the dynamics of underlying inflation, and the strength of monetary policy transmission.”