



EUROPEAN CENTRAL BANK

EUROSYSTEM

How quickly will inflation return to target?

Panel discussion

29th Dubrovnik Economic
Conference

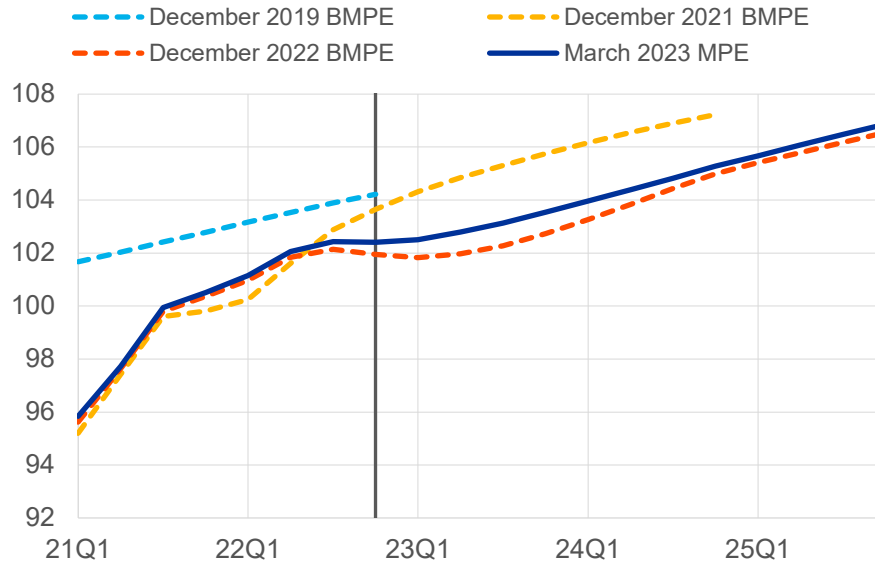
26 May 2023



Philip R. Lane
Member of the Executive Board

Recent (B)MPE projections for real GDP

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



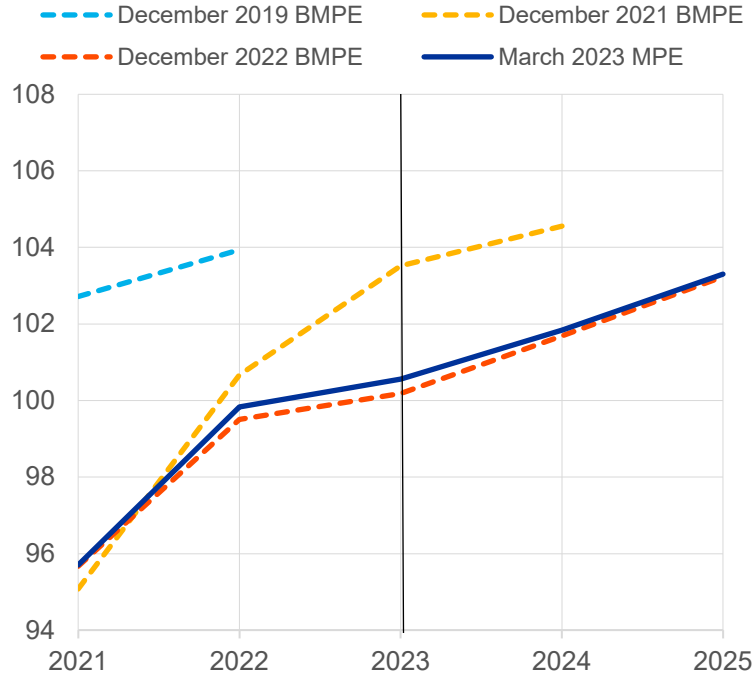
Source: (B)MPE.

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

Consumption and investment projections since December 2021

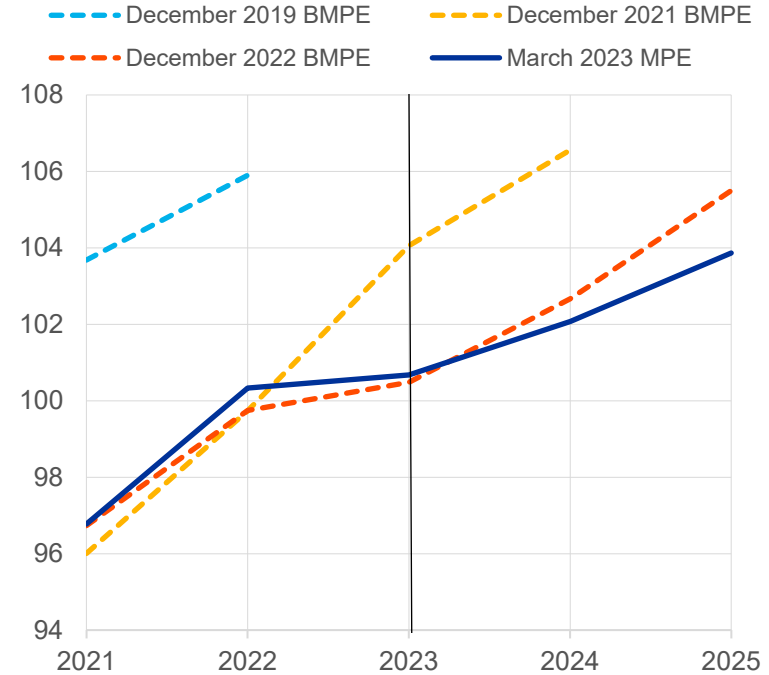
Private consumption

(chain linked volumes, index: 2019 = 100)



Total investment

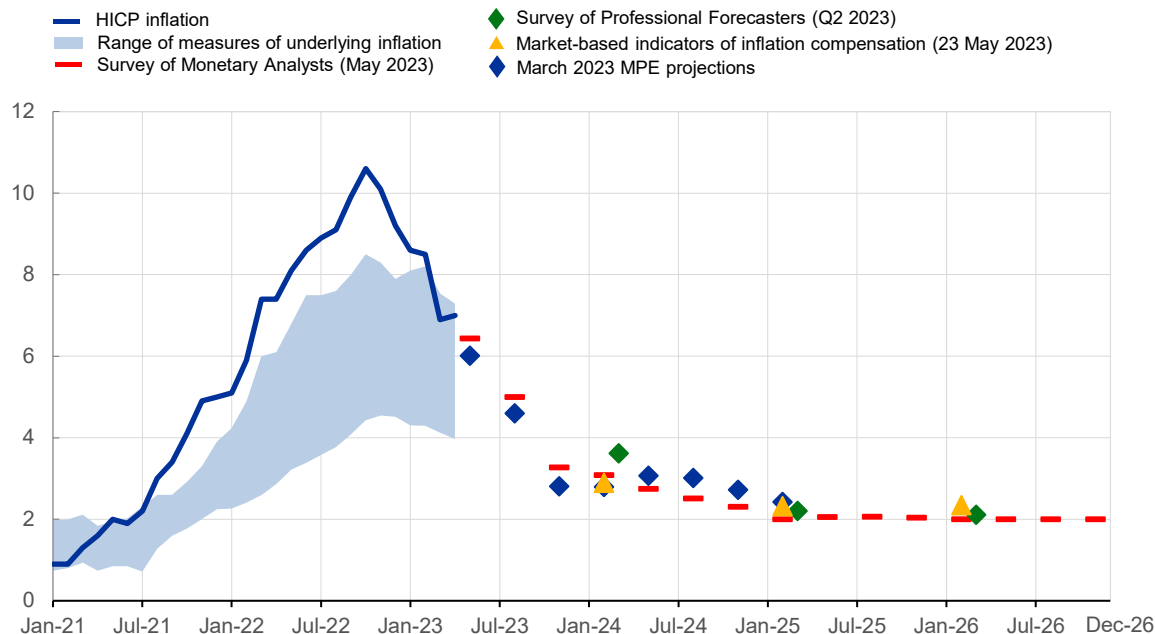
(chain linked volumes, index: 2019 = 100)



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)



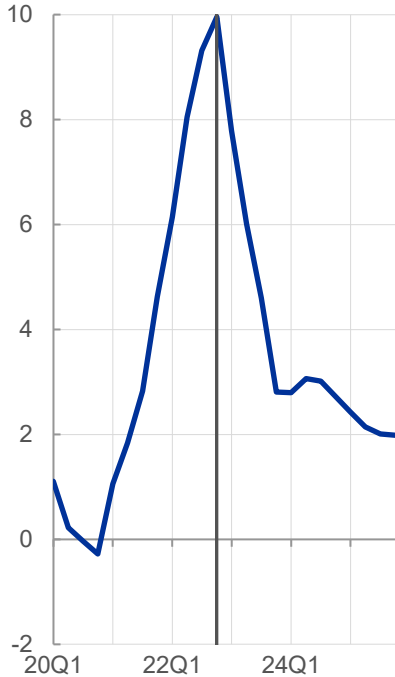
Sources: Eurostat and ECB calculations.

The latest observations are for April 2023 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 23 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

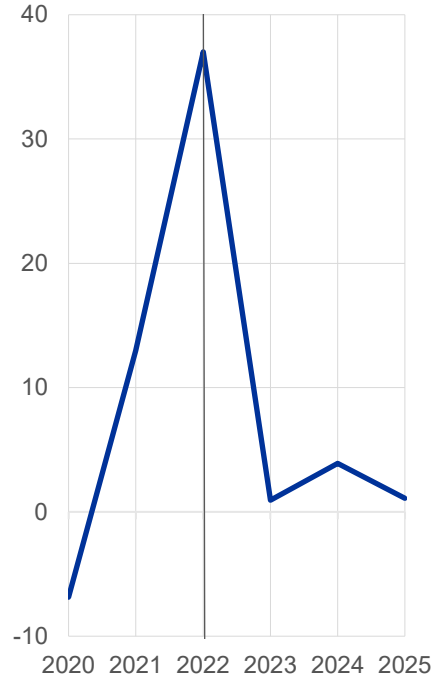
HICP

(annual percentage changes)



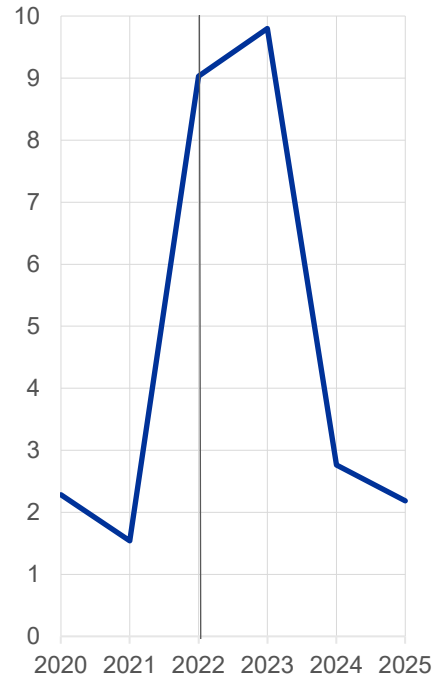
HICP energy

(annual percentage changes)



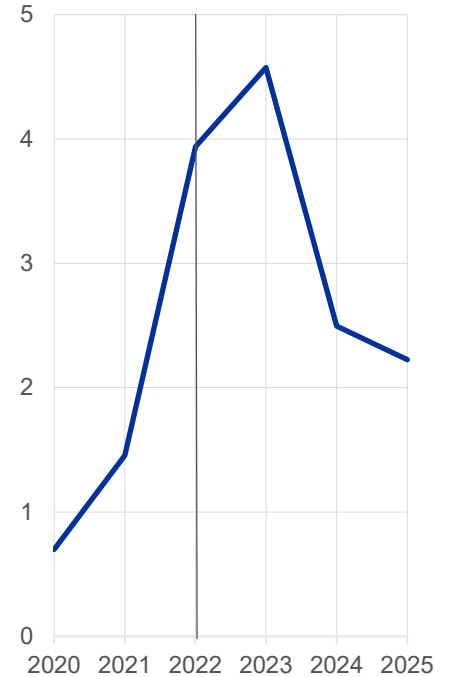
HICP food

(annual percentage changes)



HICP excl. energy and food

(annual percentage changes)



Source: March 2023 MPE.

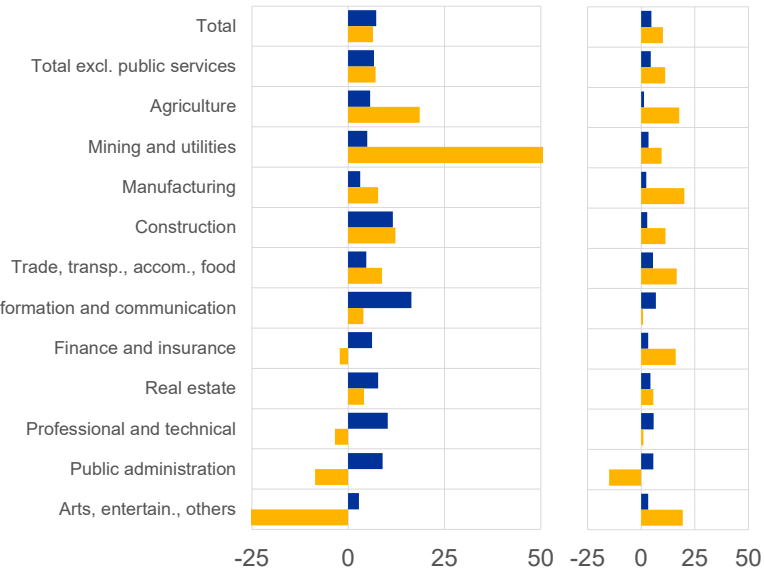
Notes: Headline HICP is shown at quarterly frequency. The components of HICP are shown at annual frequency.

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.

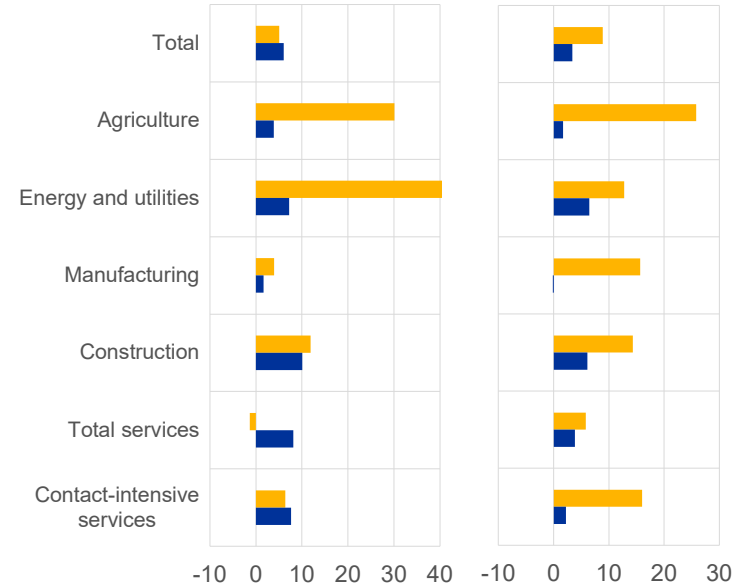
Notes: Wages refer to compensation of employees, profits to gross operating surplus. Wages include income for the self-employed. In the left panel the value for mining and utilities is 54.3% and for arts, entertainment and others it is -29.4%. The latest observations are for the fourth quarter of 2022.

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.

Services inflation and profit margins

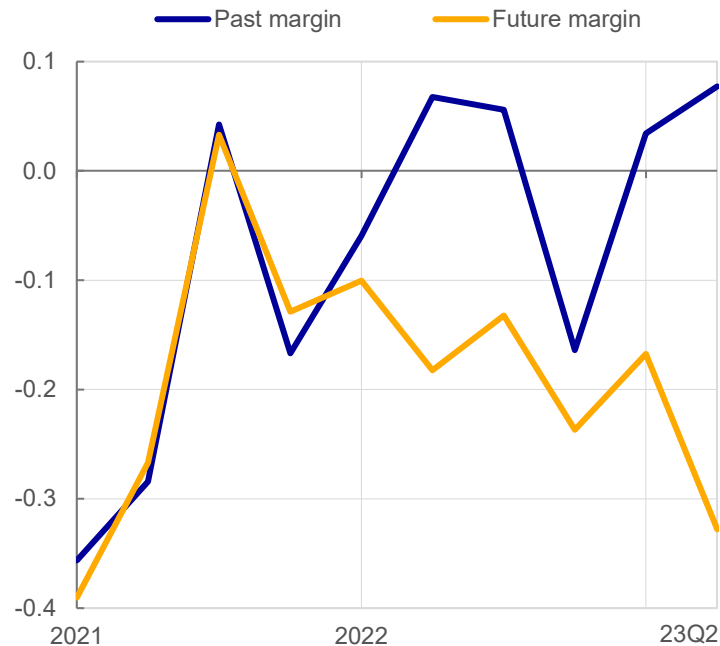
Average contribution to services inflation

(percentage point contributions)



Information on profit margins from the ECB corporate telephone survey

(average of CTS scores)



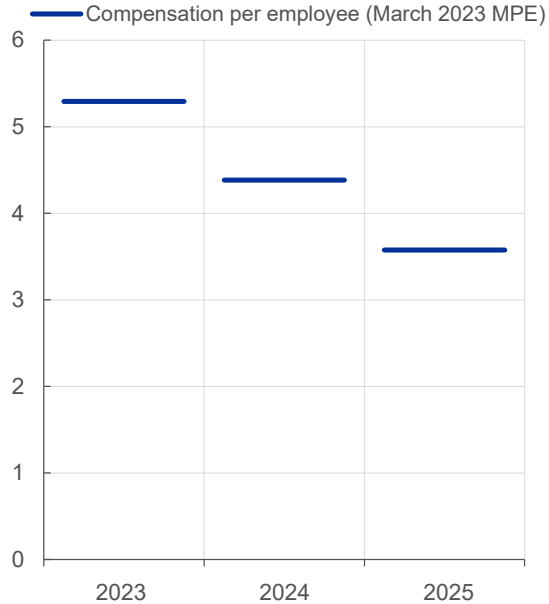
Sources: Eurostat and ECB calculations.
Note: The latest observations are for April 2023.

Source: ECB corporate telephone survey (CTS).
Notes: 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. Latest observation is for Q2 2023.

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

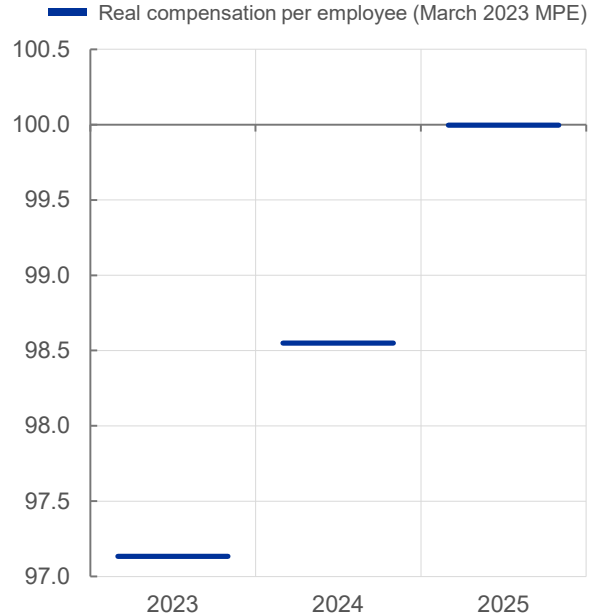
Nominal wages

(annual percentage changes)



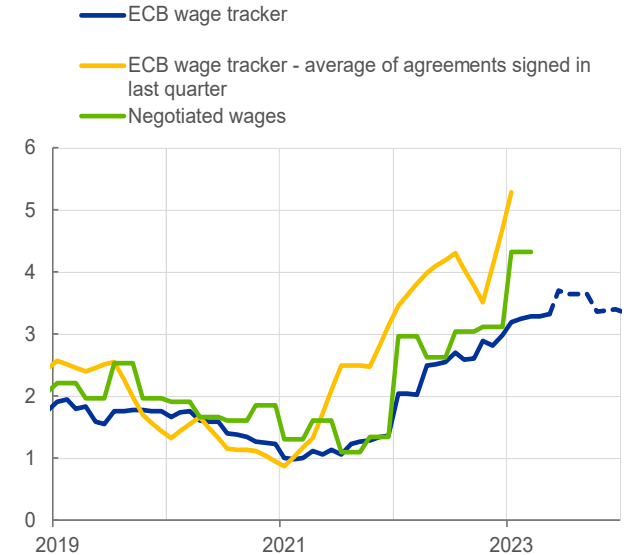
Real wages

(index: 2020 = 100; deflated by HICP)



Real-time wage trackers

(annual percentage changes)



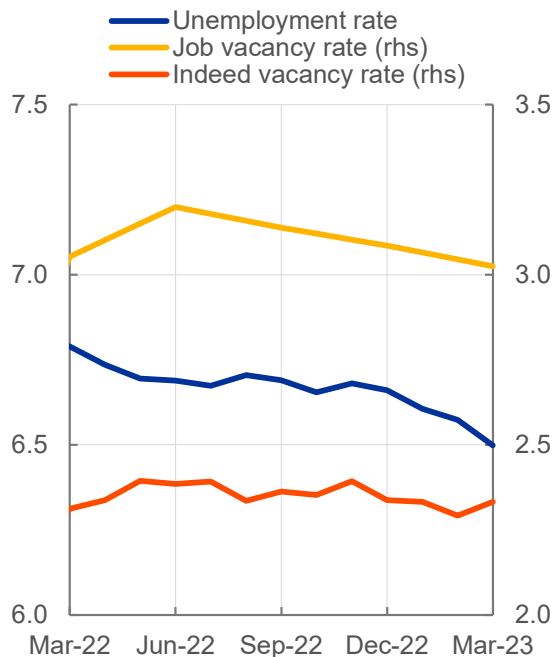
Sources: March 2023 ECB staff macroeconomic projections, Eurostat and ECB calculations.
 Note: The latest observation is for the fourth quarter of 2022.

Sources: Euro area wage tracker calculated on micro data on wage agreements provided by NCBs (DE, FR, ES, GR, AT, IT) and AWWN employer association (NL);
 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, Q1 2023 for wage growth in latest agreements and negotiated wages

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 the first quarter of 2023..

GDP, employment and hours worked

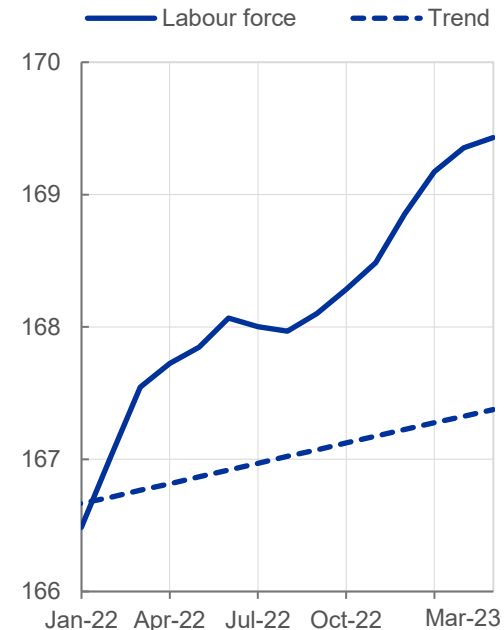
(index: Q4 2019 = 100; diffusion index)



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

Note: The latest observations are for May 2023 for PMI, first quarter of 2023 for Employment and GDP, and the fourth quarter of 2022 for Total hours.

Labour force (millions)



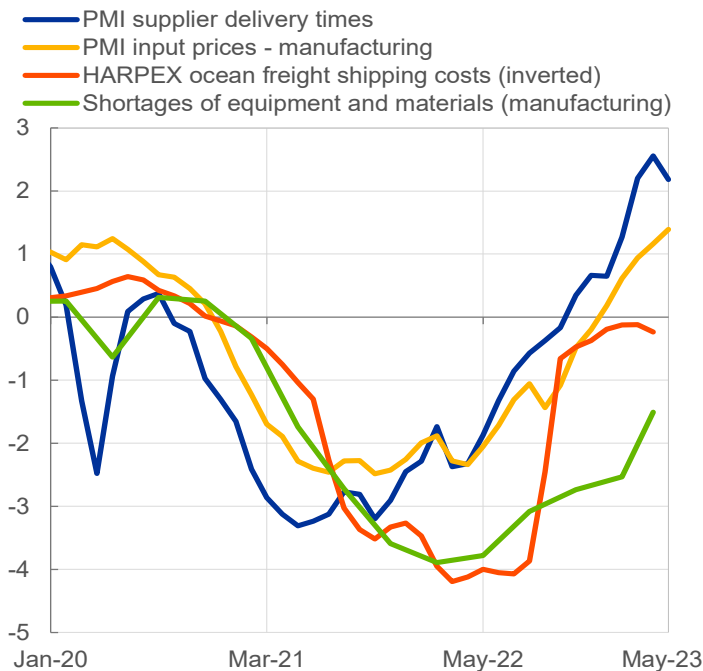
Sources: Eurostat and ECB calculations.

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

Supply bottlenecks and the income effect of terms of trade

Supply bottleneck indicators

(standardised)

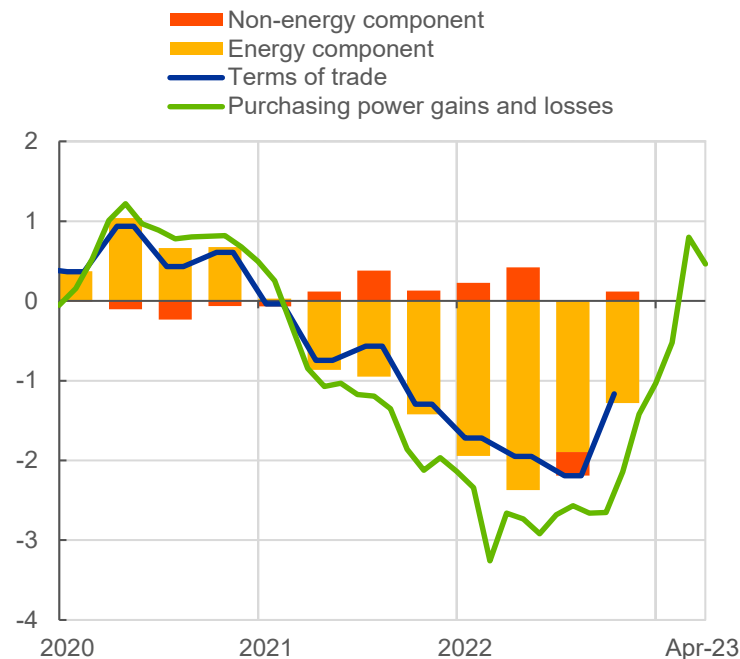


Sources: Eurostat, S&P global, DG-ECFIN and ECB calculations.

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, May 2023 for PMI supplier delivery times and PMI input prices - manufacturing, and April 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)

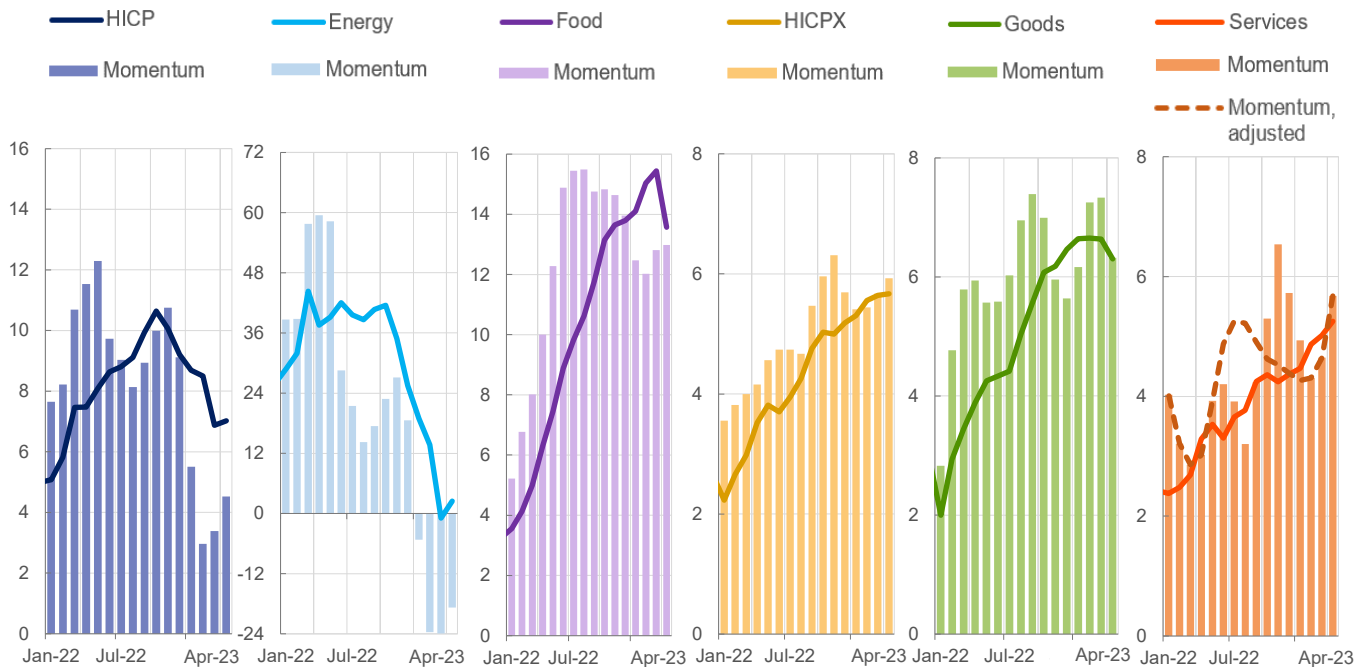


Sources: Eurostat and ECB calculations.

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.

Inflation momentum for HICP and sub-components

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

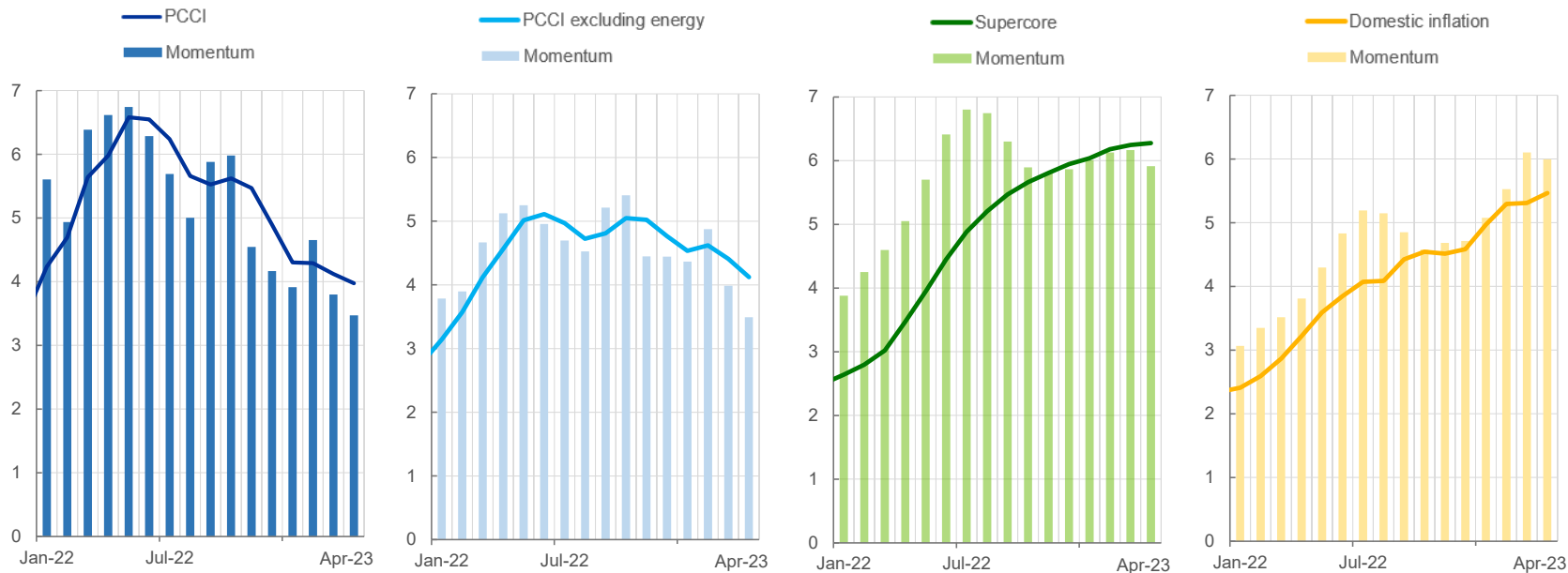


Sources: Eurostat and ECB calculations

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.

Latest observations: April 2023.

Inflation momentum for underlying inflation measures (annual percentage changes; annualised 3-month-on-3-month percentage changes)



Sources: Eurostat and ECB calculations.

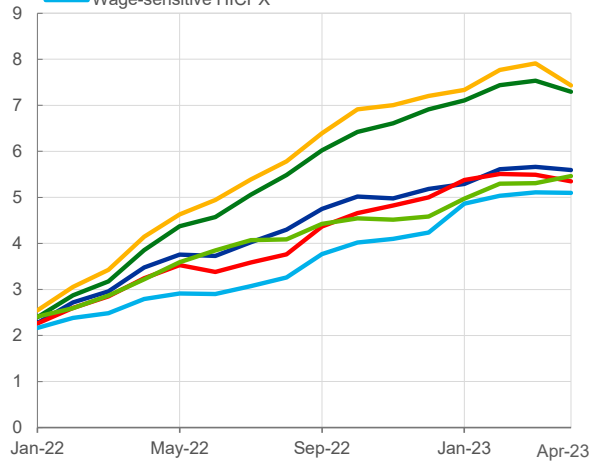
Notes: Momentum for supercore and domestic inflation is defined as annualised 3-month-on-3-month rates. For PCCI, momentum is defined as annualised month-on-month rates. Based seasonally adjusted data.

Latest observations: April 2023.

Indicators of underlying inflation (annual percentage changes)

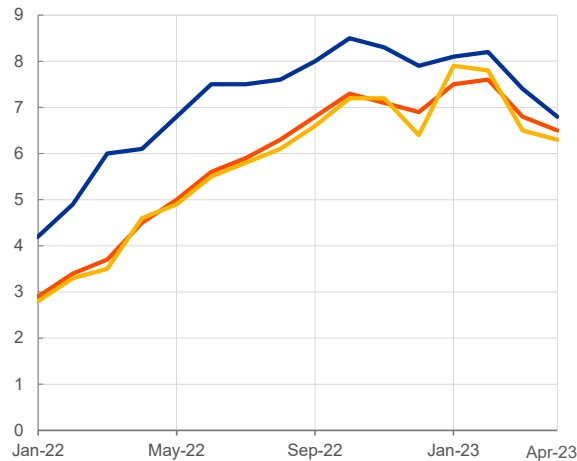
Exclusion and domestic-based HICP

- HICP excluding energy and food (HICPX)
- HICP excluding energy, food, travel-related items and clothing
- HICP excluding energy
- HICP excluding unprocessed food and energy
- Domestic inflation
- Wage-sensitive HICPX



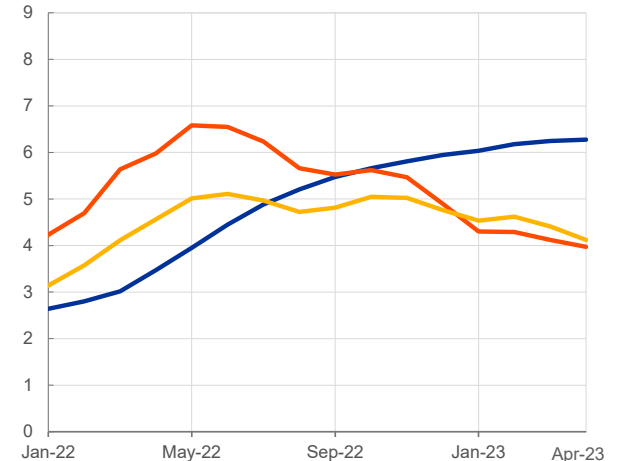
Trimmed HICP

- Trimmed mean (10%)
- Trimmed mean (30%)
- Weighted median



Model-based measures

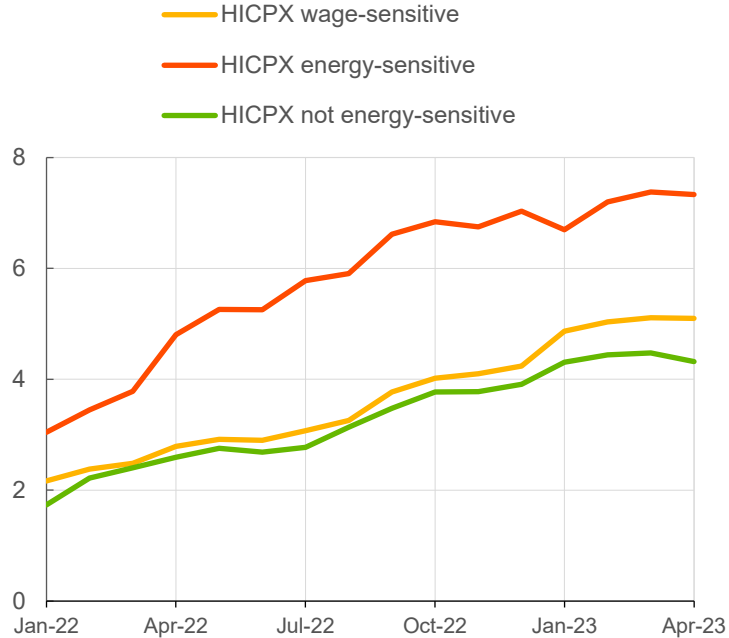
- Supercore
- PCCI (persistent and common component of inflation)
- PCCI excluding energy



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

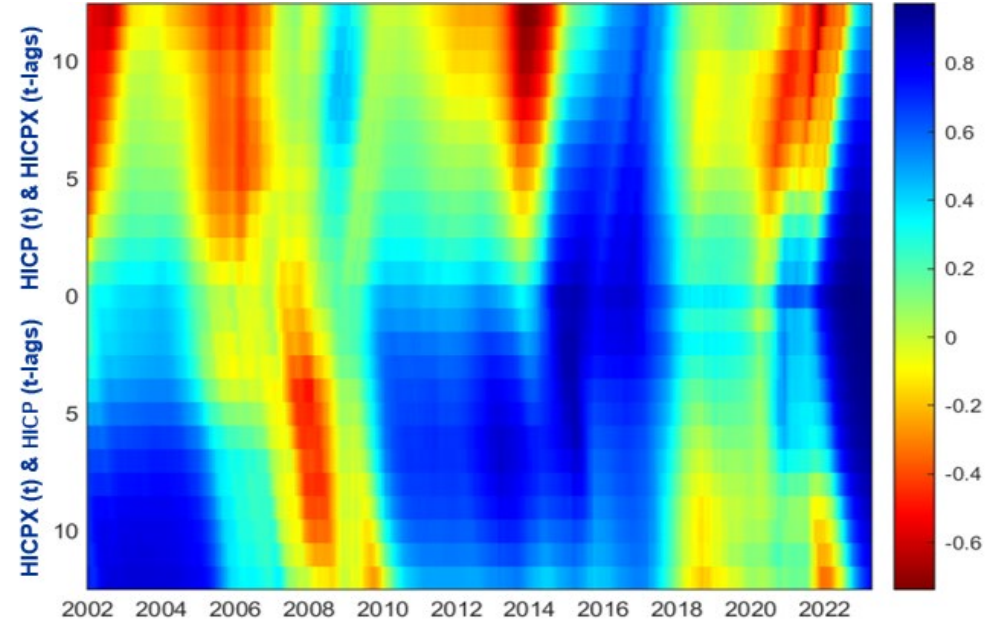
Role of energy and wages; correlation of HICP inflation and HICPX inflation

Role of energy and wages in core inflation (annual percentage changes)



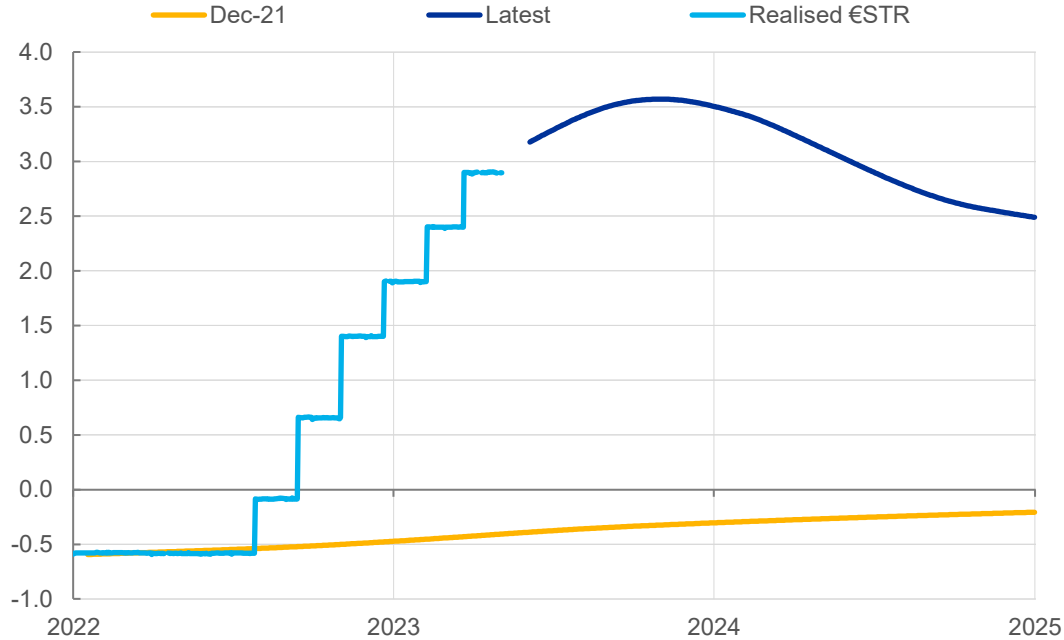
Sources: Eurostat and ECB calculations.
Note: The latest observations are for April 2023.

Correlation of HICP inflation and HICPX inflation (including leads/lags)



Sources: Eurostat and ECB calculations.
Notes: Rolling correlation (moving window of 60 months). Upper panel: HICP inflation at time t and HICP excluding energy and food inflation at time $t-k$. Lower panel HICP excluding energy and food inflation at time t and HICP inflation at time $t-k$. Latest observation: April 2023.

€STR forward curve (percentages per annum)



Sources: Bloomberg and ECB calculations.

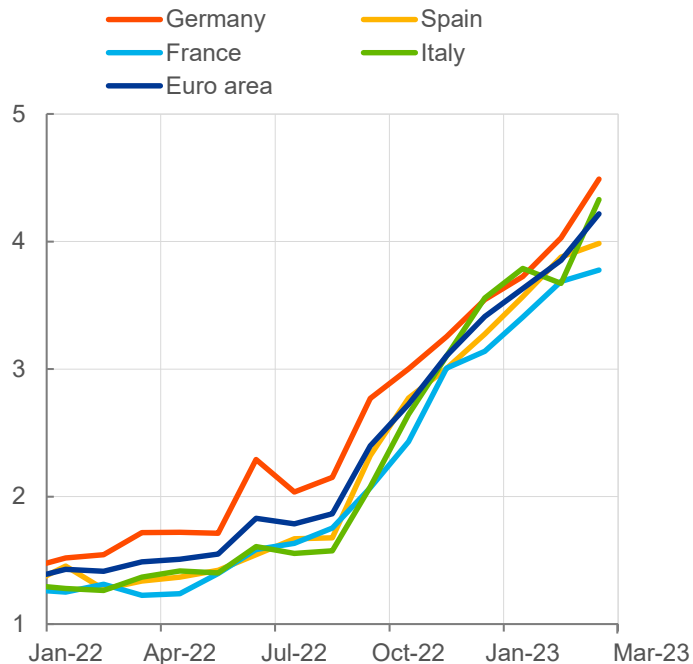
Notes: The December 2021 curve refers to the day before the Dec 2021 GovC (15 Dec 2021).

Latest observation: 23 May 2023 for realised €STR and latest forward curve.

Bank lending rates for firms and households for house purchase

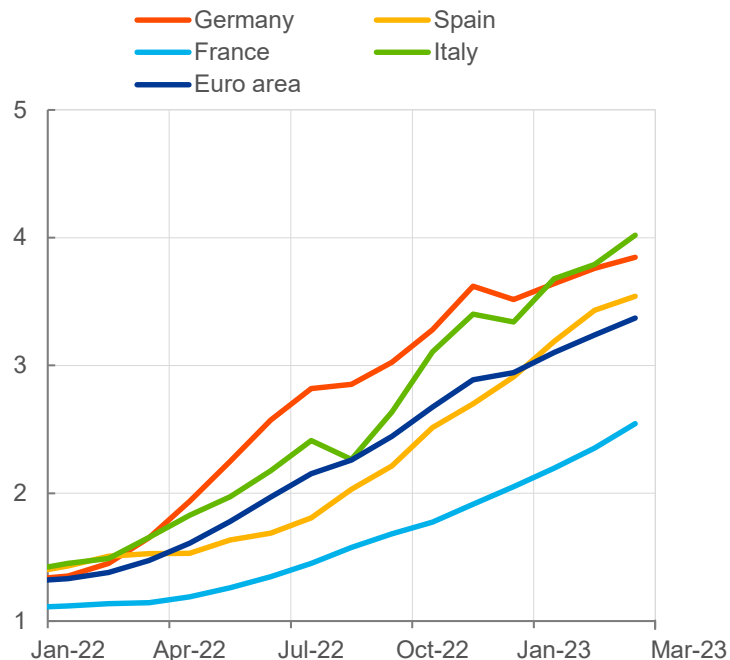
Lending rates to firms

(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.

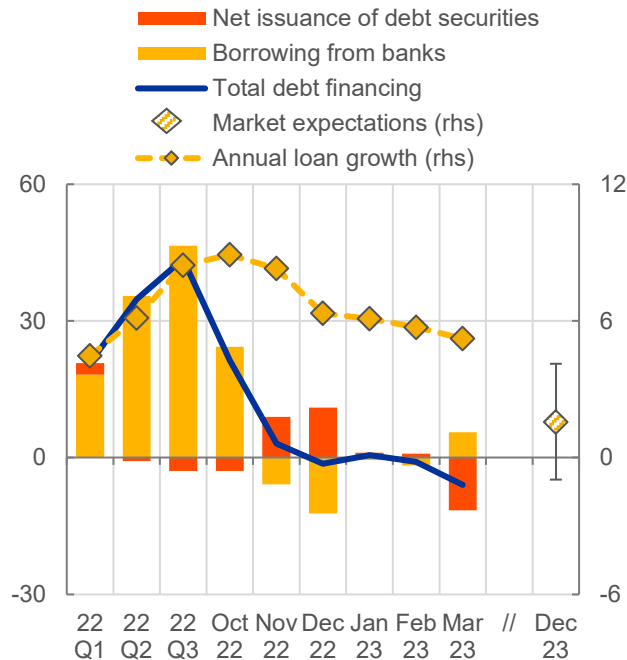
Source: ECB (MIR).

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

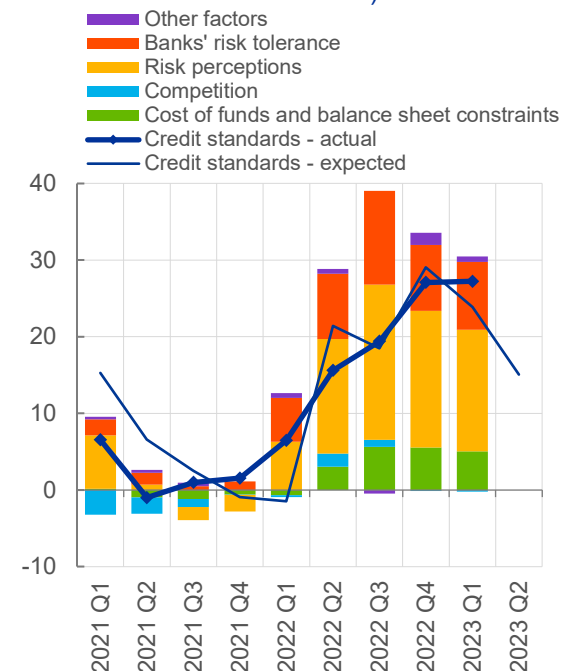
Net debt financing of firms

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



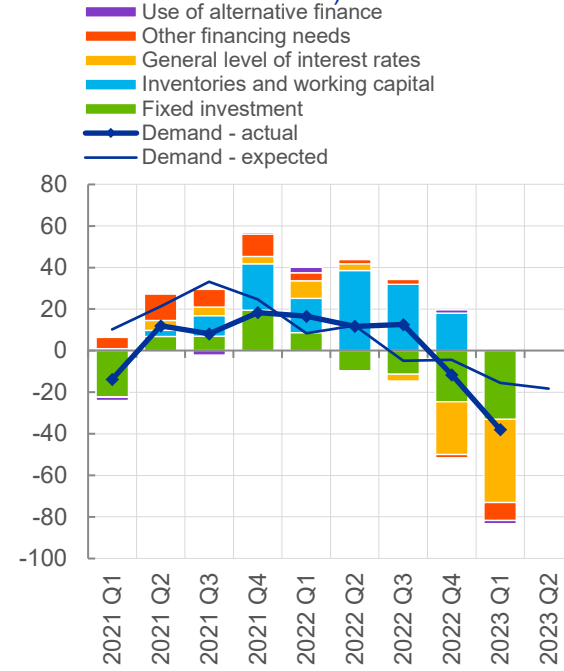
Changes in credit standards for loans to firms

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



Changes in demand for loans to firms

(net percentages of banks reporting an increase)



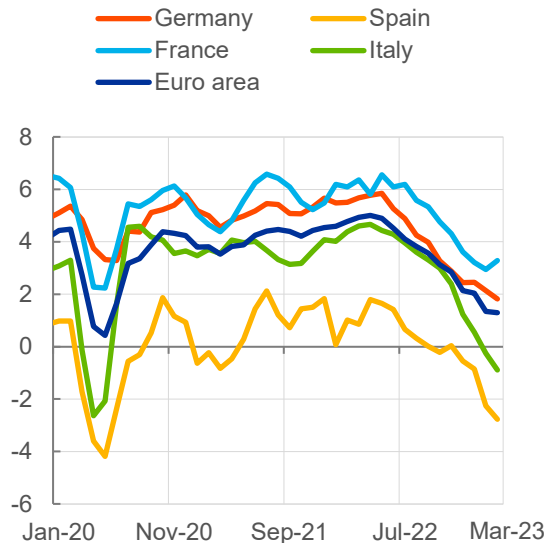
Sources: ECB (BSI, CSEC) and ECB calculations. Notes: The dashed diamond shows the median annual growth rate of bank loans as reported by IBES forecasters. Whiskers represent values within one standard dev. around the median (16th and 84th percentiles). Distribution weighted by realised loan volume as of year-end 2022. Based on a sample of 204 forecasts covering 36 banks, submitted between 1 April and 19 May 2023. Ireland is dropped for data quality issues, and forecasts are trimmed of 10% of observations on each side. The latest observation is for March 2023.

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).

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). www.ecb.europa.eu

Household loans, credit standards and loan demand

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

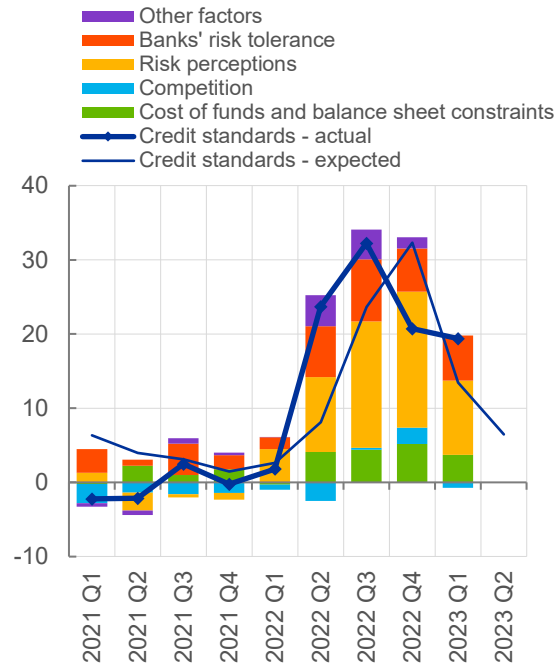


Sources: ECB (BSI).

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)

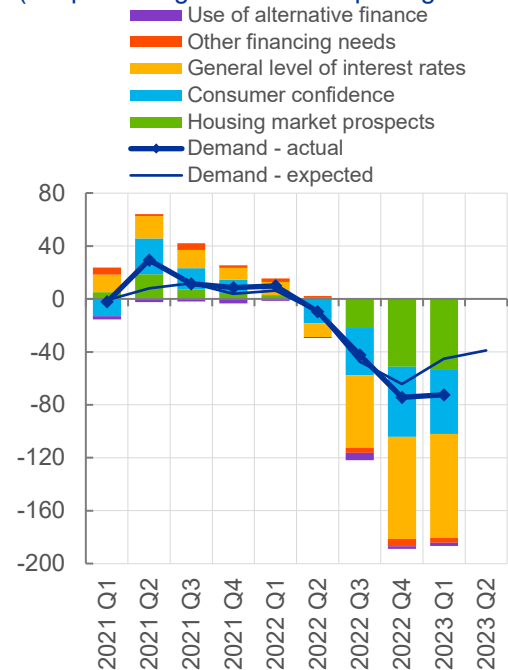


Source: ECB Bank Lending Survey.

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.”