The confidence to act

Monetary policy and the role of wages during the disinflation process
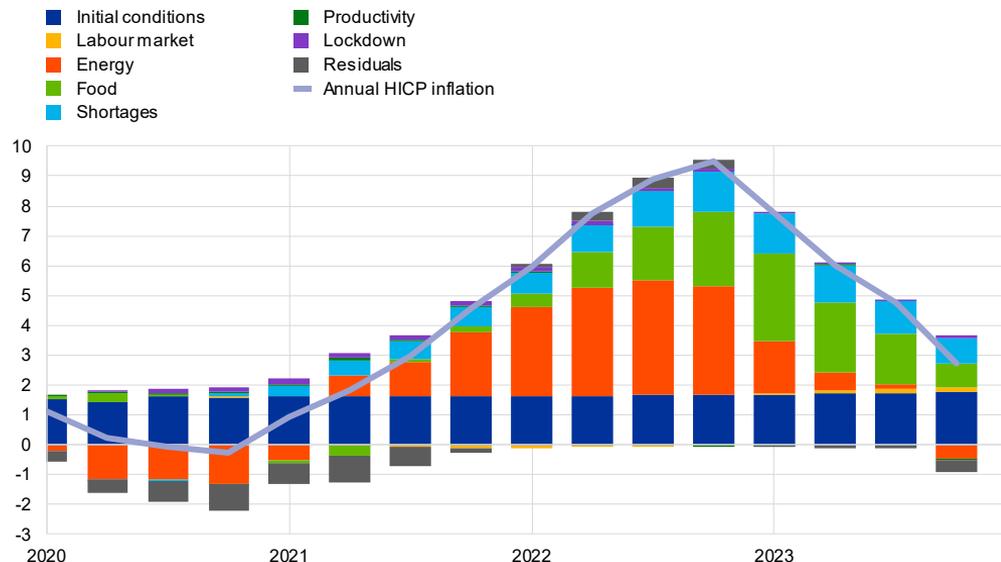
EUROPEAN CENTRAL BANK
EUROSYSTEM

27 March 2024

Piero Cipollone
Member of the Executive Board

Chart 1 Dynamic decomposition of euro area headline inflation using the Bernanke-Blanchard model

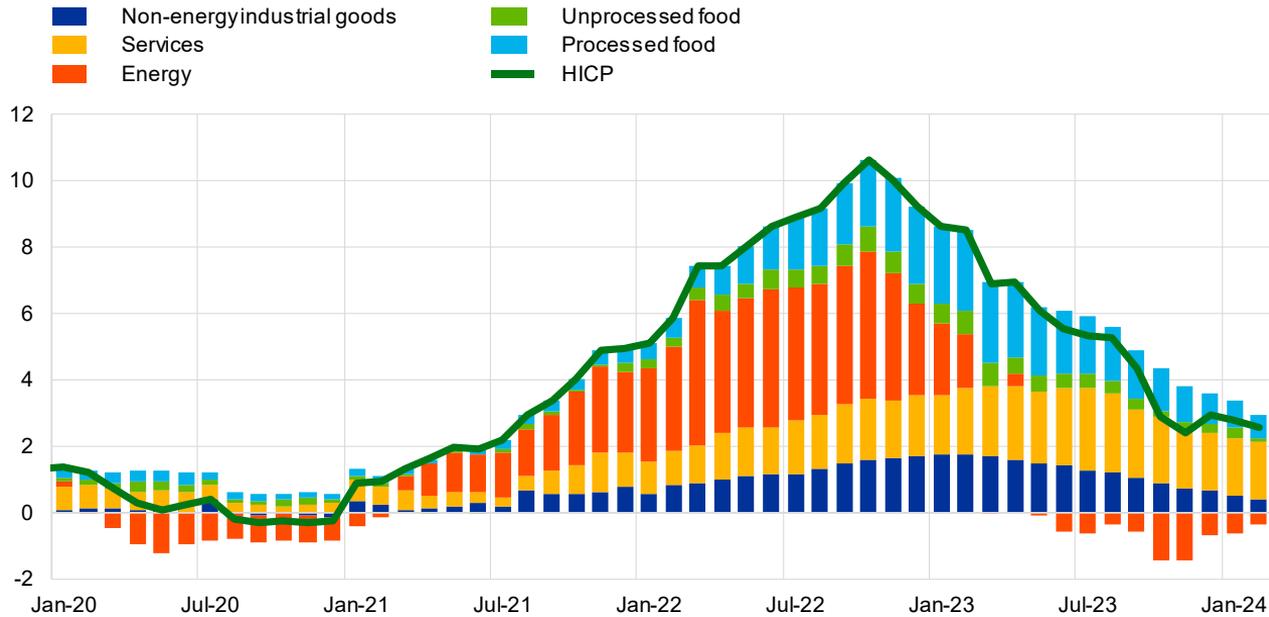(year-on-year growth rate and percentage point contributions)

Legend:
- Initial conditions
- Labour market
- Energy
- Food
- Shortages
- Productivity
- Lockdown
- Residuals
- Annual HICP inflation

Chart 2 Contribution of components to euro area headline inflation

(annual percentage changes and percentage point contributions)

- Non-energy industrial goods
- Services
- Energy
- Unprocessed food
- Processed food
- HICP

Sources: Eurostat and ECB staff calculations.
Note: The latest observations are for February 2024.

Chart 3 Euro area terms of trade and energy import prices

(left-hand scale: terms-of-trade ratio, right-hand scale: energy import prices)

— Terms-of-trade ratio (left-hand scale)
— Energy import prices
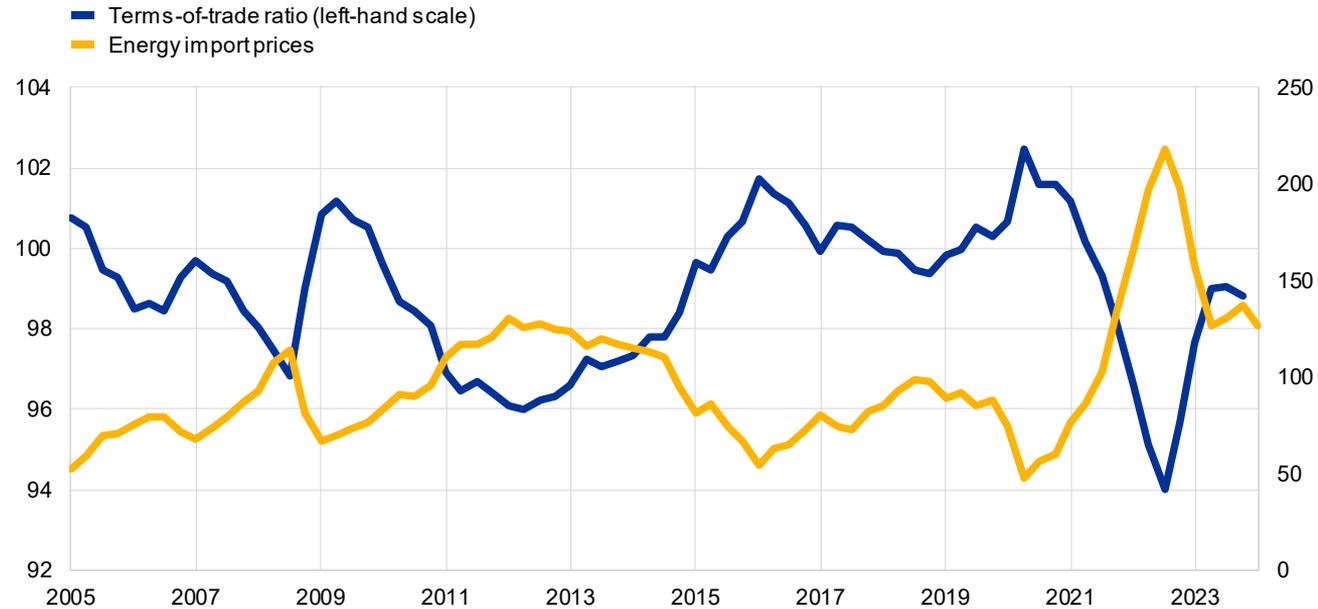
Source: Eurostat.
Notes: The terms of trade are expressed as a ratio between export and import deflators. The base year for energy import prices is 2015. The latest observations are for the fourth quarter of 2023.

Chart 4 Real compensation per employee in the euro area

(index: Q4 2019 = 100)
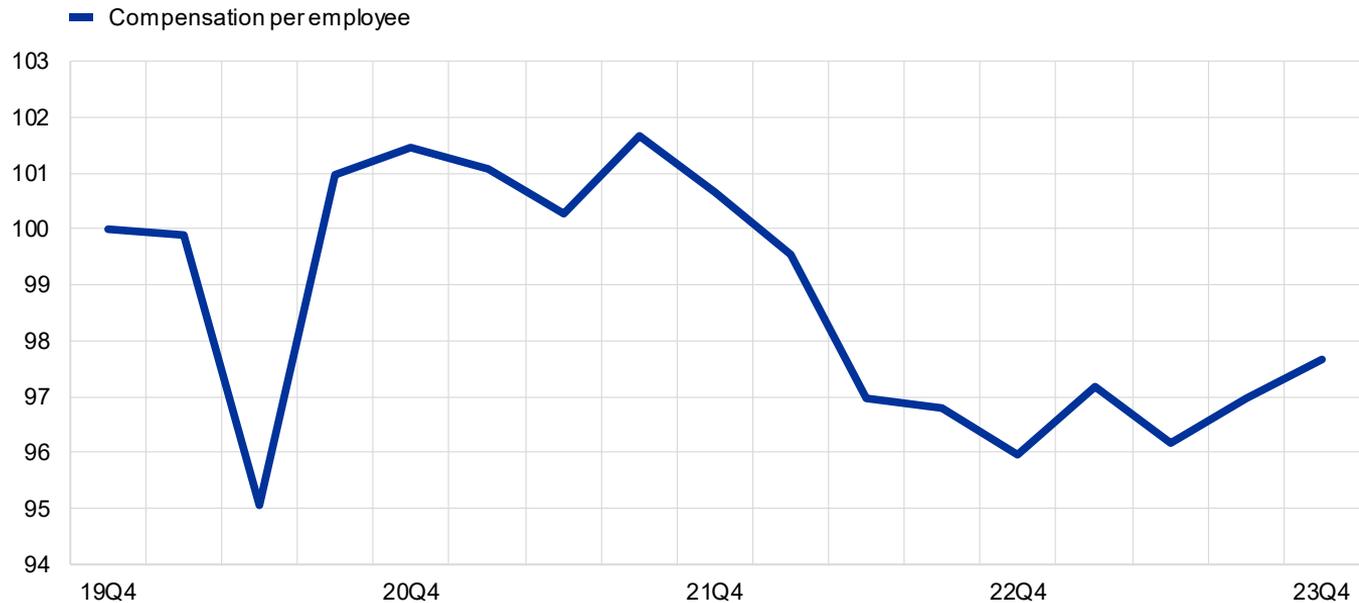
Sources: Eurostat and ECB staff calculations.
Notes: Real compensation per employee is constructed by dividing nominal compensation per employee by HICP. The latest observations are for the fourth quarter of 2023.

Chart 5 Wage share in the euro area

(percentages; adjusted for share of self-employed)
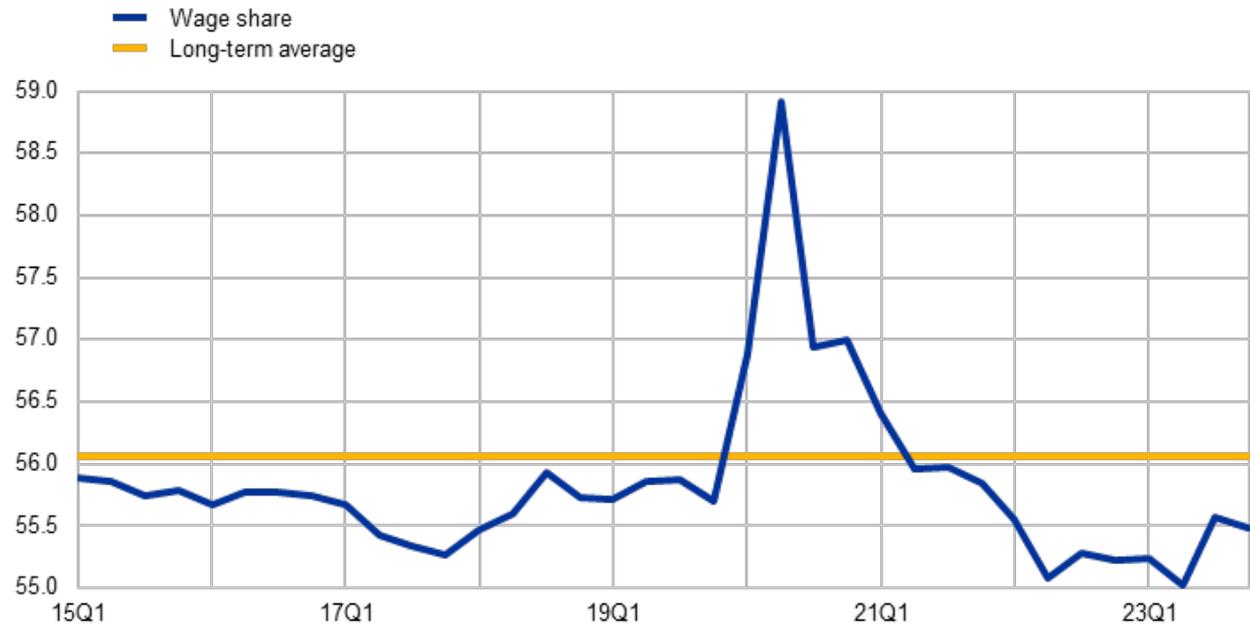
Sources: Eurostat and ECB staff calculations.
Notes: Long-term average is calculated from 1999 to 2023. The latest observations are for the fourth quarter of 2023.

Chart 6 Central bank total assets

(indexed at 100 at the start of respective policy rate hiking cycles)
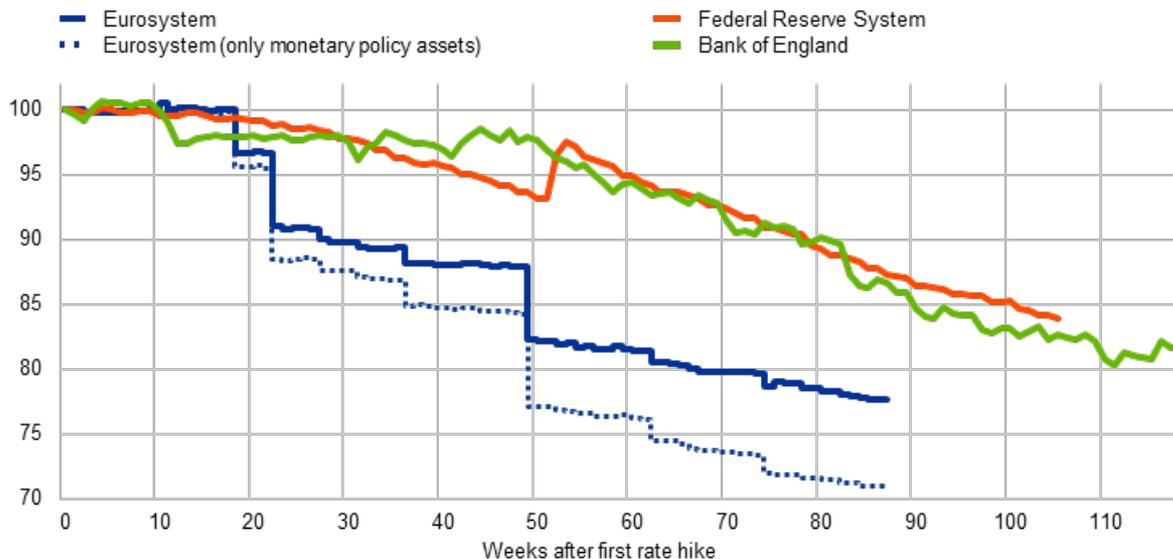
Source: Bloomberg.
Notes: Series based on a 22-day moving average to smooth monthly data. The latest observation is for 14 March 2024.
Sources: Bloomberg, ECB calculations.
Notes: Index is set at 100 for the date of the first increase in policy rate by the central banks shown in the figure; the x-axis starts on 21 July 2022, 16 March 2022 and 15 December 2021 for the Eurosystem, Federal Reserve System and Bank of England, respectively. For Bank of England, reserve balances are used as a proxy for total balance sheet. The latest observation is for 22 March 2024.

Chart 7 Indicators of underlying inflation in the euro area

(annual percentage changes; PCCI, PCCI excluding energy: three-month moving average of annualised month-on-month growth rates; Supercore: three-month moving average of annual growth rate)

Legend:
- Core inflation (HICP excluding food and energy)
- Domestic inflation
- Weighted median
- Range of underlying inflation measures
- Supercore
- PCCI
- PCCI excluding energy
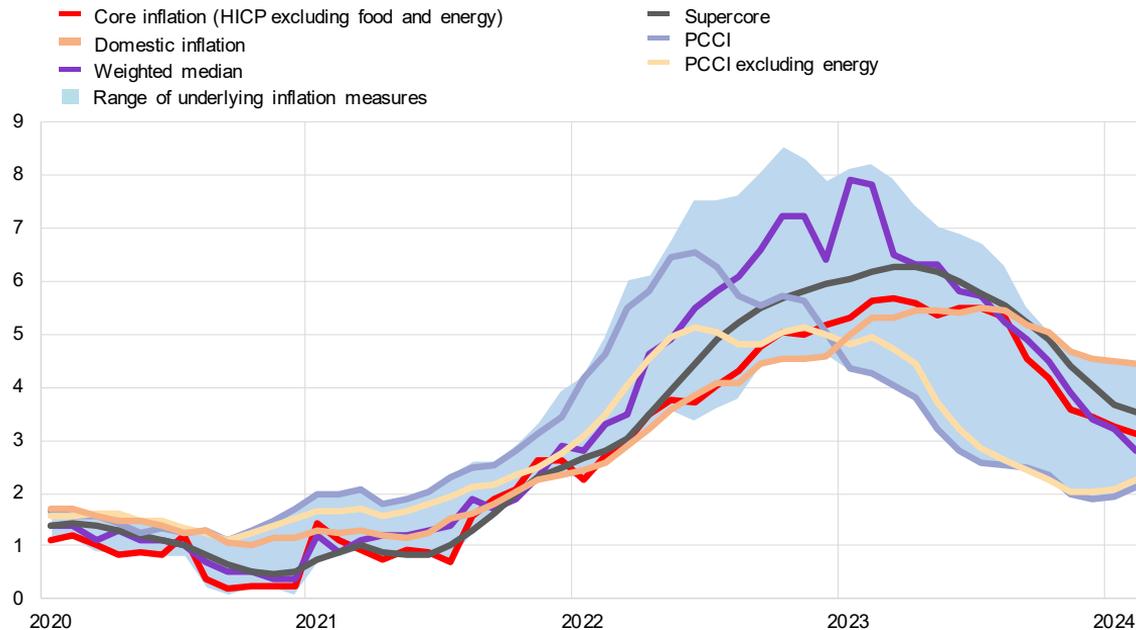
Sources: Eurostat and ECB staff calculations.
Notes: The latest observations are for February 2024. The range of underlying inflation measures includes those shown on the chart, as well as HICP excluding unprocessed food and energy, HICPXX, HICP excluding energy, Trimmed mean (10%), and Trimmed mean (30%).

(net percentages of banks reporting an increase in demand, and contributing factors)

Legend:
- Fixed investment
- Inventories and working capital
- General level of interest rates
- Other financing needs
- Use of alternative finance
- Demand – actual
- Demand – expected
- Other factors
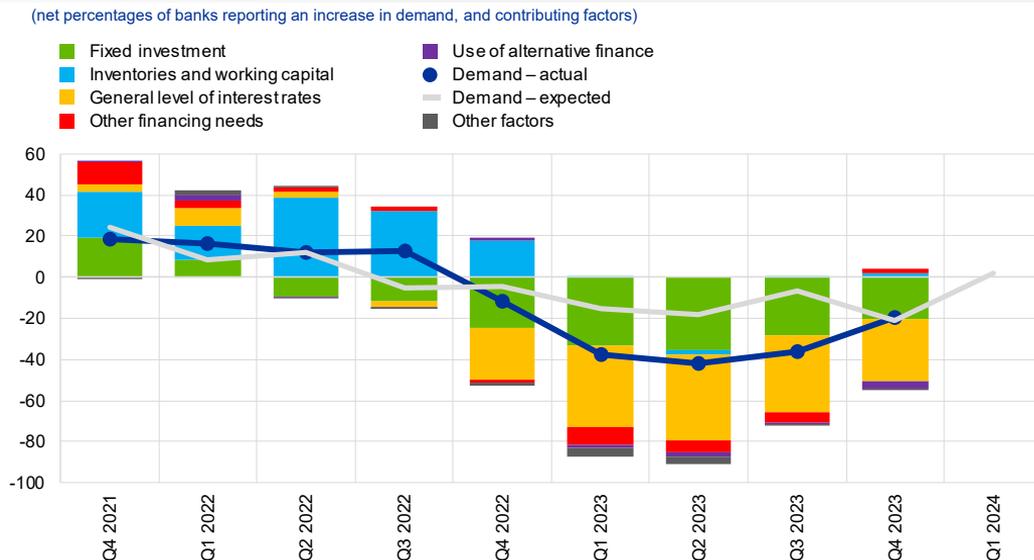
Sources: ECB (BLS) and ECB calculations.
Notes: "Actual" values are changes that have occurred, while "expected" values are changes anticipated by banks. Net percentages for the questions on demand for loans are defined as the difference between the sum of the percentages of banks responding "increased considerably" and "increased somewhat" and the sum of the percentages of banks responding "decreased somewhat" and "decreased considerably". The net percentages for responses to questions relating to contributing factors are defined as the difference between the percentage of banks reporting that the given factor contributed to increasing demand and the percentage reporting that it contributed to decreasing demand. "Other financing needs" is the unweighted average of "mergers/acquisitions 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 net percentages for the "other factors" refer to an average of the further factors which were mentioned by banks as having contributed to changes in loan demand. The latest observations are for the fourth quarter of 2023.

(net percentages of banks reporting a tightening of credit standards and contributing factors)

Legend:
- Banks' risk tolerance
- Risk perceptions
- Competition
- Cost of funds and balance sheet constraints
- Other factors
- Credit standards – actual
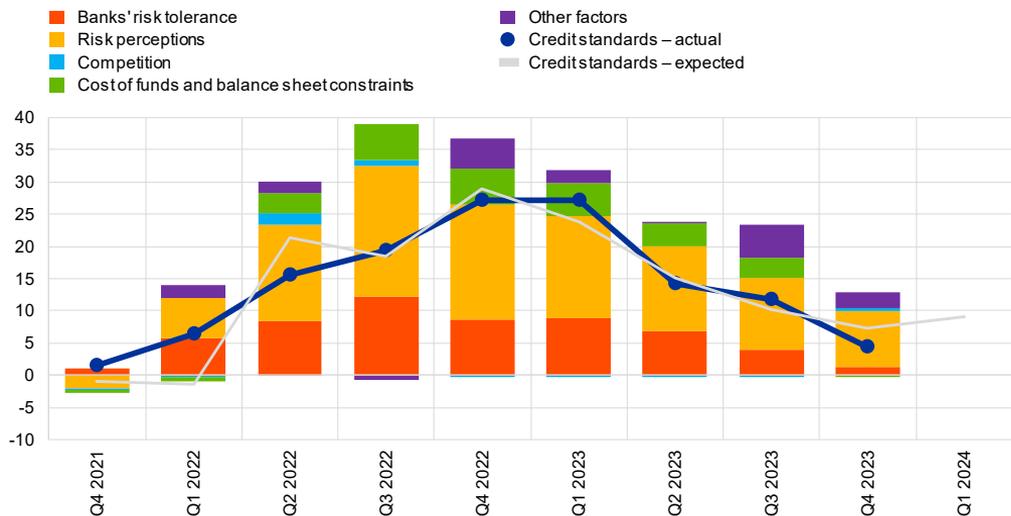- Credit standards – expected

Sources: ECB (BLS) and ECB calculations.
Notes: "Actual" values are changes that have occurred, while "expected" values are changes anticipated by banks. Net percentages are defined as the difference between the sum of the percentages of banks responding "tightened considerably" and "tightened somewhat" and the sum of the percentages of banks responding "eased somewhat" and "eased considerably". The net percentages for responses to questions related to contributing factors are defined as the difference between the percentage of banks reporting that the given factor contributed to a tightening and the percentage reporting that it contributed to an easing. "Cost of funds and balance sheet constraints" is the unweighted average of "banks' capital and the costs related to banks' capital position", "access to market financing" and "liquidity position"; "risk perceptions" is the unweighted average of "general economic situation and outlook", "industry or firm-specific situation and outlook/borrower's creditworthiness" and "risk related to the collateral demanded"; "competition" is the unweighted average of "competition from other banks", "competition from non-banks" and "competition from market financing". The net percentages for "other factors" refer to an average of the further factors which were mentioned by banks as having contributed to changes in credit standards. The latest observations are for the fourth quarter of 2023.

Chart 10 Retail sales, consumer confidence and business expectations in the euro area
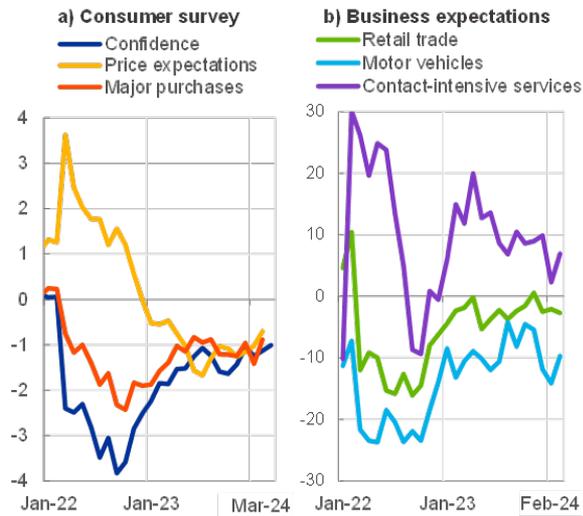

Retail sales and sales by type of good in specialised stores

(indices: Q4 2021 = 100)
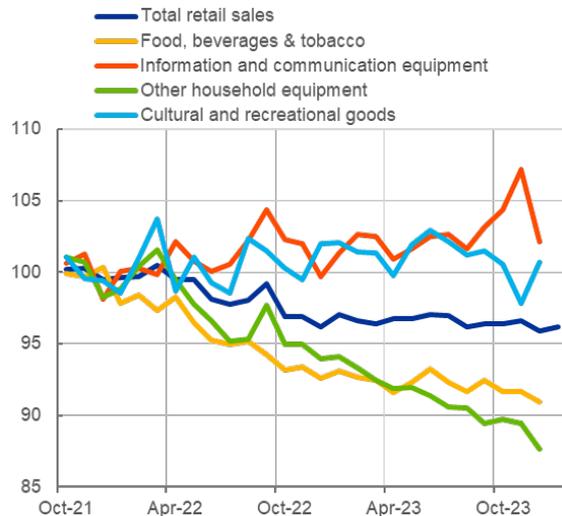
Consumer confidence and business expectations

(panel a): standardised percentage balances, panel b: percentage balances)

Sources: Left-hand panel: Eurostat and ECB calculations; right-hand panel: European Commission and ECB calculations.
Notes: Right-hand panel: panel a): standardised over pre-COVID period (standardised over April 2019-January 2024), expectations over next 12 months; panel b): demand for services and retail trade business situation over the next three months, motor vehicles refer to sale and repair, contact-intensive services are an aggregation of food, accommodation and travel services based on HICP weights. The latest observations in the left-hand panel are for December 2023 and January 2024 for total retail sales, and in the right-hand panel, for March 2024 (flash).

Chart 11 General government net lending/borrowing

(percentages of GDP)
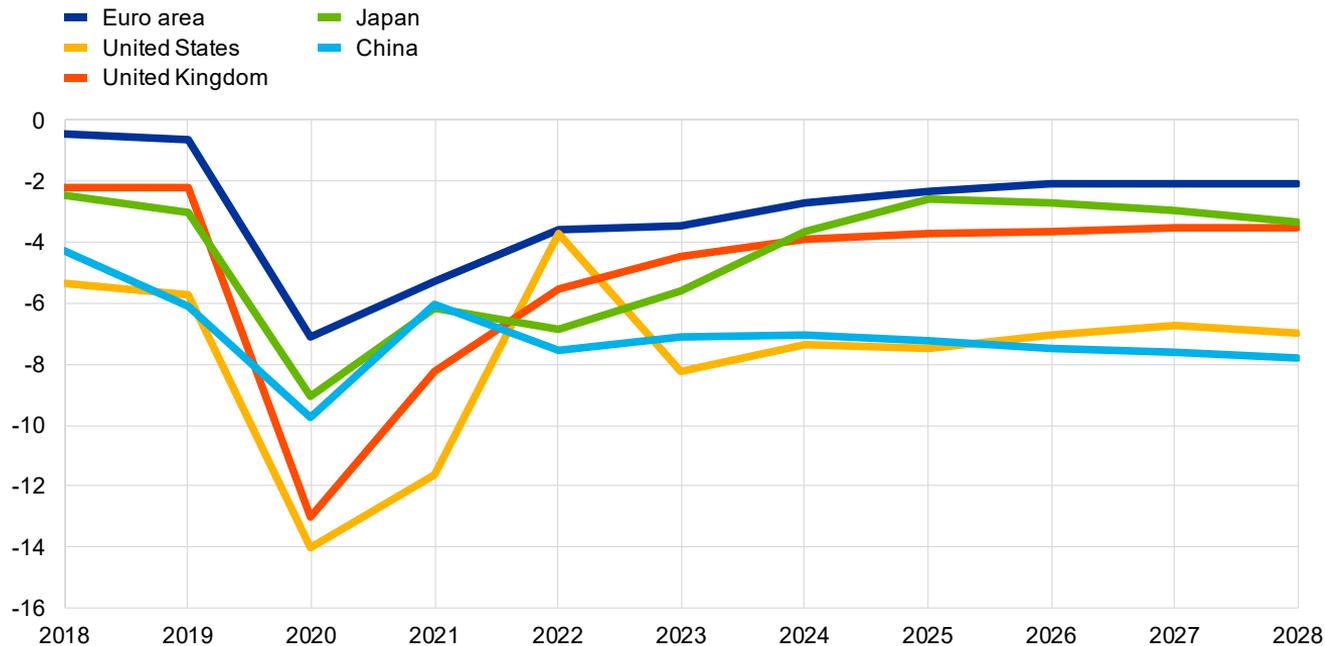
Source: IMF (2023), *World Economic Outlook*, October.

Chart 12 Euro area PMI indicators and factors limiting production

a) Composite PMI

(diffusion indices, standardised)

- Composite output
- Composite new orders
- Composite future activity
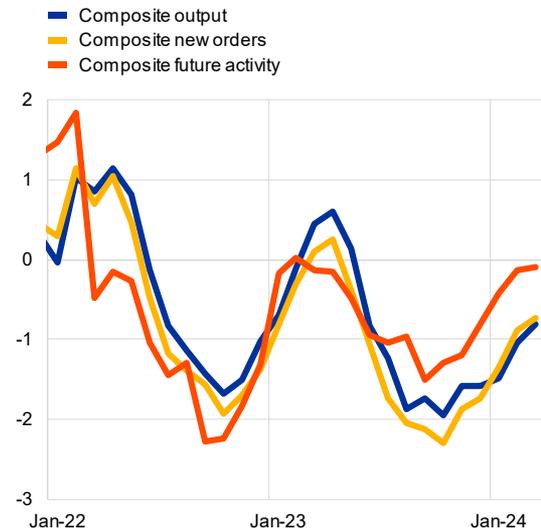
b) Limits to production

(percentages)

- Insufficient demand
- Shortage of labour
- Lack of equipment
- Financial factors
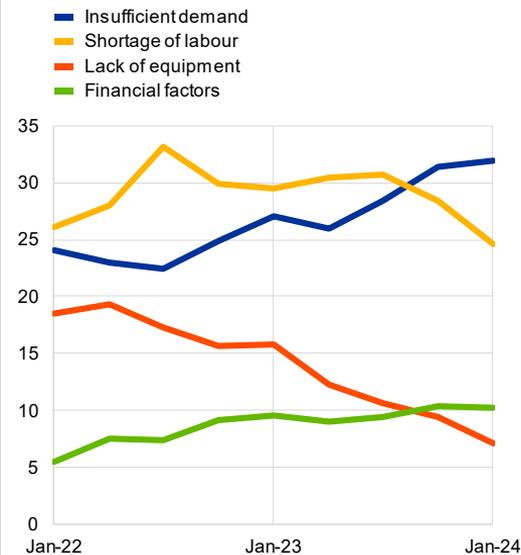
Sources: S&P Global Market Intelligence, European Commission and ECB calculations.
Note: Panel b) is based on aggregated sectoral survey data using GVA weights. PMI stands for Purchasing Managers' index.
Latest observations: panel a): February 2024, panel b): March 2024 (flash).

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Chart 13 Euro area industrial production (excluding Ireland)

(indices: 2019 = 100)

- Total (excluding construction)
- Intermediate goods
- Capital goods
- Durable consumer goods
- Non-durable consumer goods
- Energy
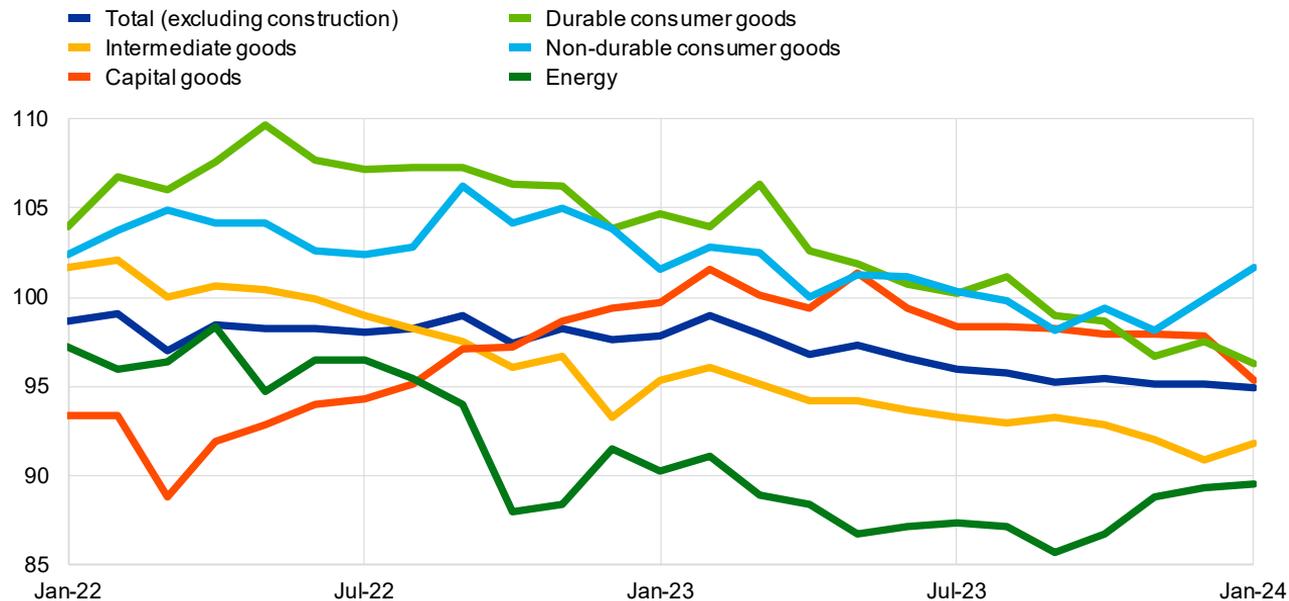
Sources: Eurostat and ECB calculations.
Note: The latest observations are for January 2024.

Chart 14 Decomposition of unit labour costs

(annual percentage changes)

- ▬ Unit labour costs
- ■ Compensation per employee
- ■ Producitivity (inverted)
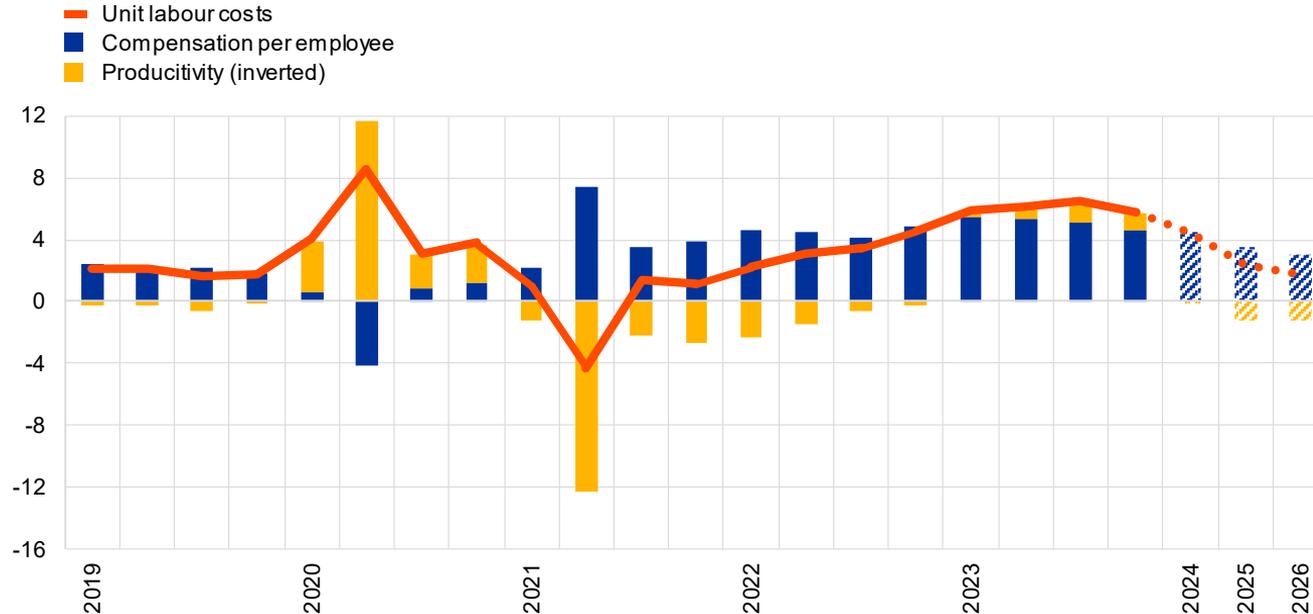
Sources: Eurostat, March 2024 MPE and ECB staff calculations.
Notes: The macroeconomic projections for the euro area were finalised on 21 February 2024. The latest observations are for the fourth quarter of 2023.

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Chart 15 Real wages and productivity in the euro area

(indices: Q4 2019 = 100)
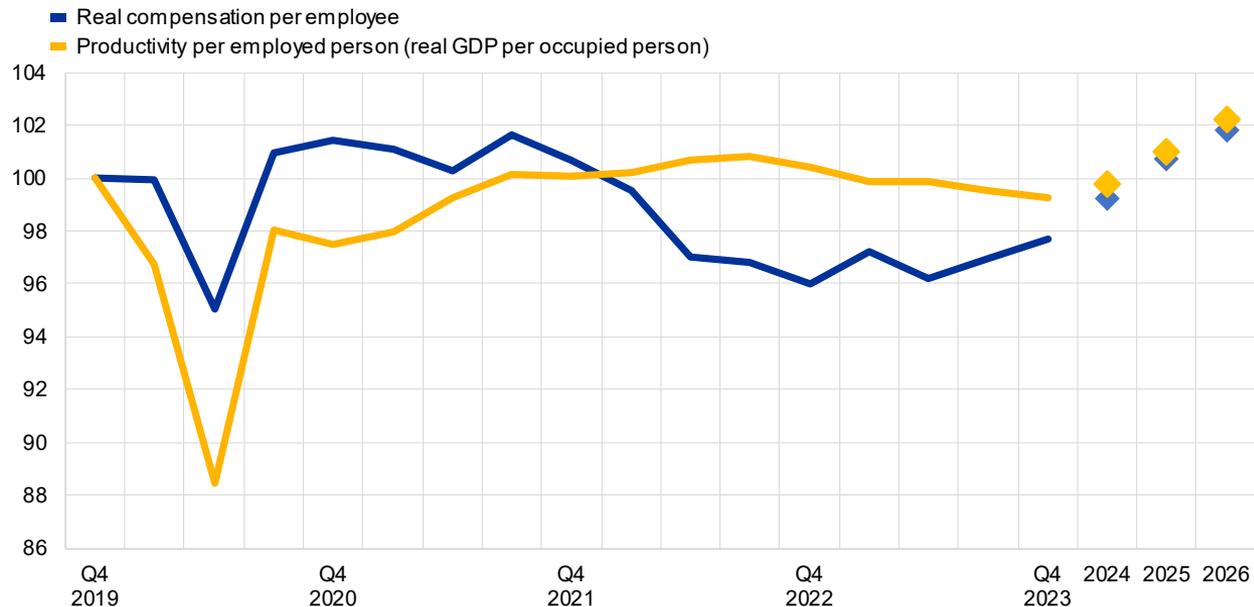
- Real compensation per employee
- Productivity per employed person (real GDP per occupied person)

Sources: Eurostat, March 2024 MPE and ECB staff calculations.
Notes: Real compensation per employee is constructed by dividing nominal compensation per employee by HICP. The macroeconomic projections for the euro area were finalised on 21 February 2024. The latest observations are for the fourth quarter of 2023.

Chart 16 Survey with leading non-financial companies:
realised and expected changes in prices and costs in 2023 and 2024

(annual percentage changes)
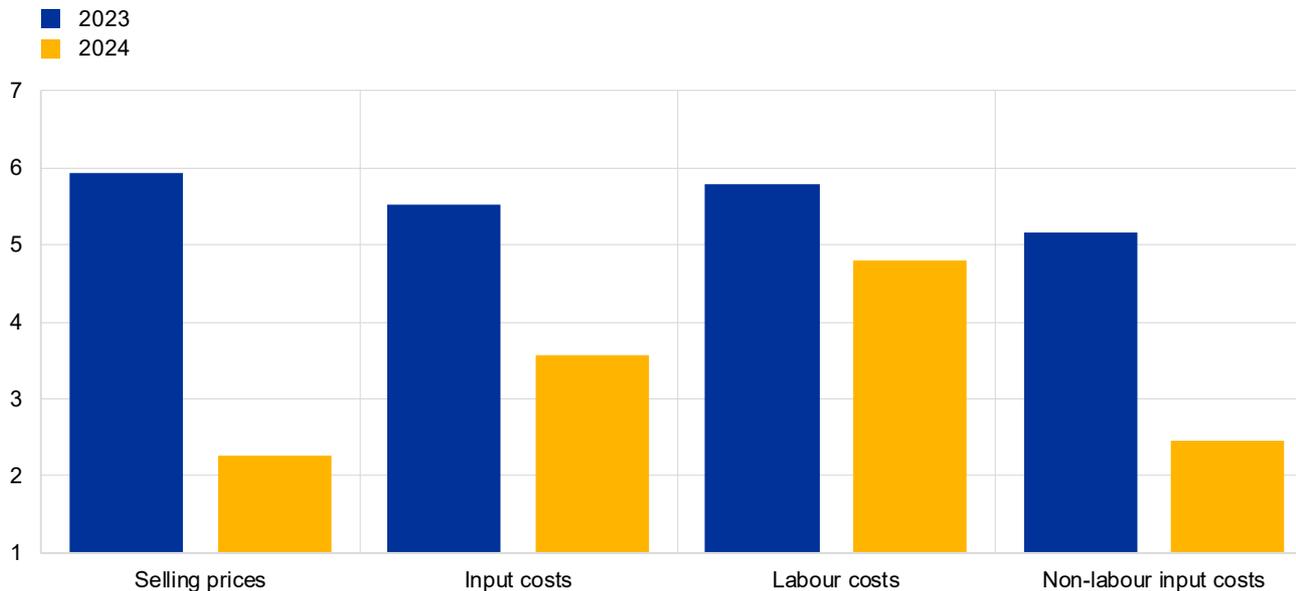
Source: ECB.
Notes: The chart is based on an ad hoc survey in the context of the ECB's regular dialogue with leading non-financial companies. 66 survey responses were received, of which a subset of 24 firms opted to indicate the (expected) growth of their selling prices, input costs, labour costs and non-labour input costs in 2023 and 2024 shown in this chart.

Chart 17 Nominal wage indicators for the euro area and United States

(annual percentage changes)
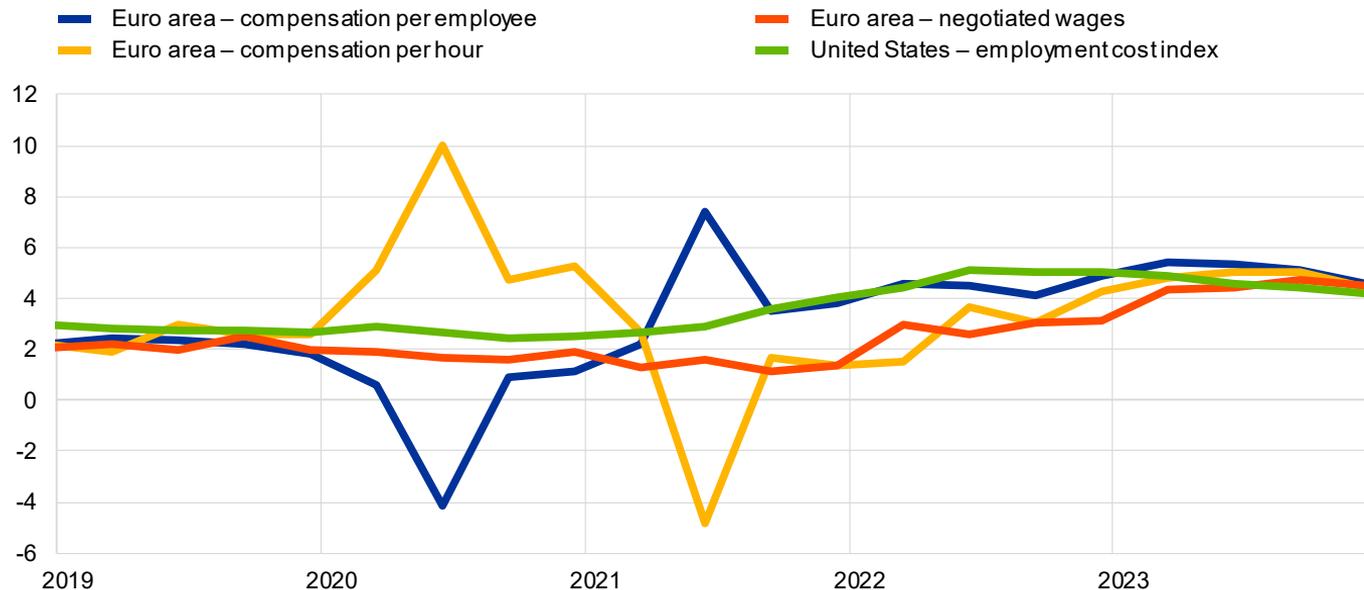
Legend:
- Euro area – compensation per employee
- Euro area – compensation per hour
- Euro area – negotiated wages
- United States – employment cost index

Chart 18 Real personal consumption expenditures

(indices: 2019 = 100)
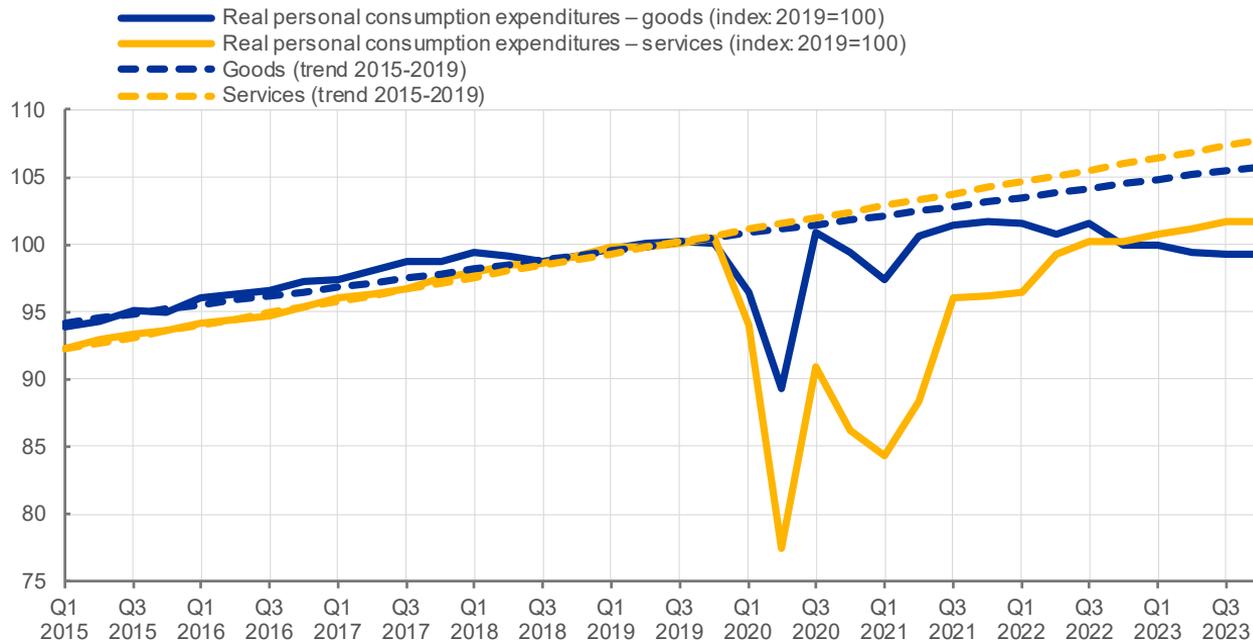
Legend:
- Real personal consumption expenditures – goods (index: 2019=100)
- Real personal consumption expenditures – services (index: 2019=100)
- Goods (trend 2015-2019)
- Services (trend 2015-2019)

Sources: Eurostat and ECB staff calculations.
Note: The latest observations are for the fourth quarter of 2023.

Chart 19 Impact of energy supply shocks on real consumer spending in the euro area

(percentage changes and percentage point contributions)

- ● Change from the fourth quarter of 2021 to the fourth quarter of 2023
- ■ Energy supply shock contribution
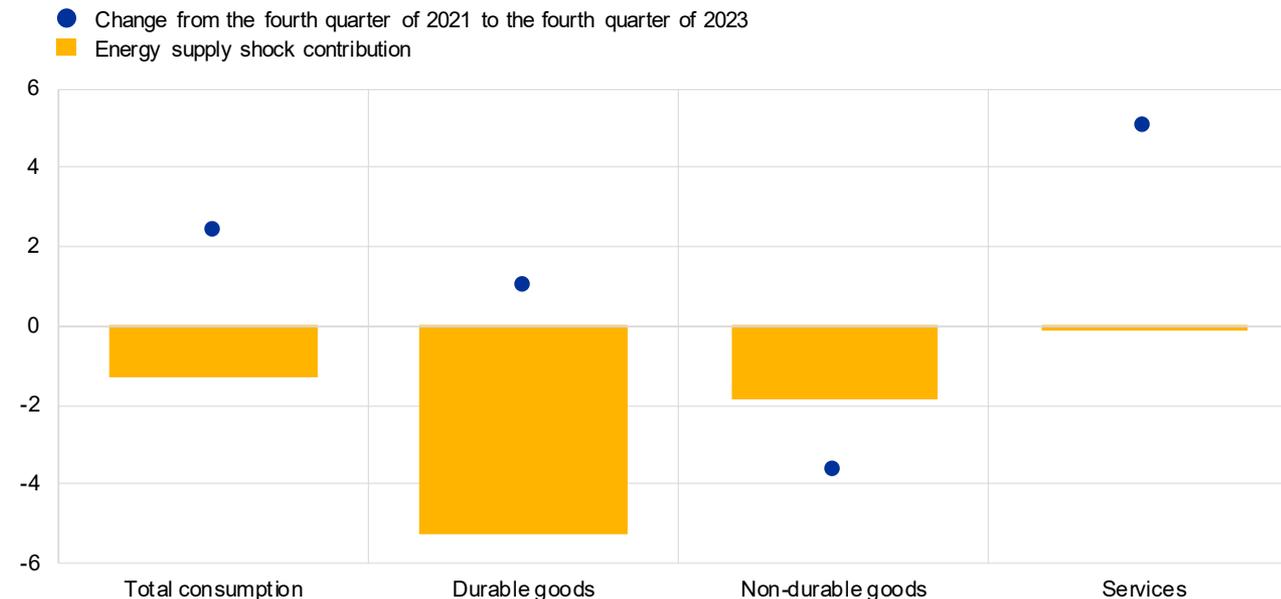
Sources: Eurostat and ECB staff calculations.
Notes: The results are based on four individual structural vector autoregression (SVAR) models identified with sign restrictions. Non-durable goods include semi-durable goods. For further details, see the box entitled "The impact of higher energy prices on services and goods consumption in the euro area", Economic Bulletin, Issue 8, ECB, 2022

Chart 20 Credit access and expected difficulty to meet mortgage payments

(left-hand panel: net percentages of respondents, harder minus easier; right-hand panel: percentages of respondents with a mortgage)

Sources: ECB (CES) and ECB calculations.
Notes: Low-income households are those in the bottom 20% of the income distribution, while high-income households are those in the top 20% of the income distribution. Diamonds represent averages over the period. Ranges are computed over the full history of the survey. The left-hand side plots the differences between the percentage of respondents who reported that credit access has become harder in the last 12 months and those who reported that it has become easier. The right-hand side shows the percentage of respondents with mortgages who said they would face difficulty meeting their mortgage payment over the next three months. The latest observations are for January 2024.

Chart 21 Euro area household excess savings by use in the third quarter of 2023

(percentages of annual household disposable income)

- ● Excess savings
- ■ Liquid financial assets
- ■ Non-financial assets
- ■ Other financial assets
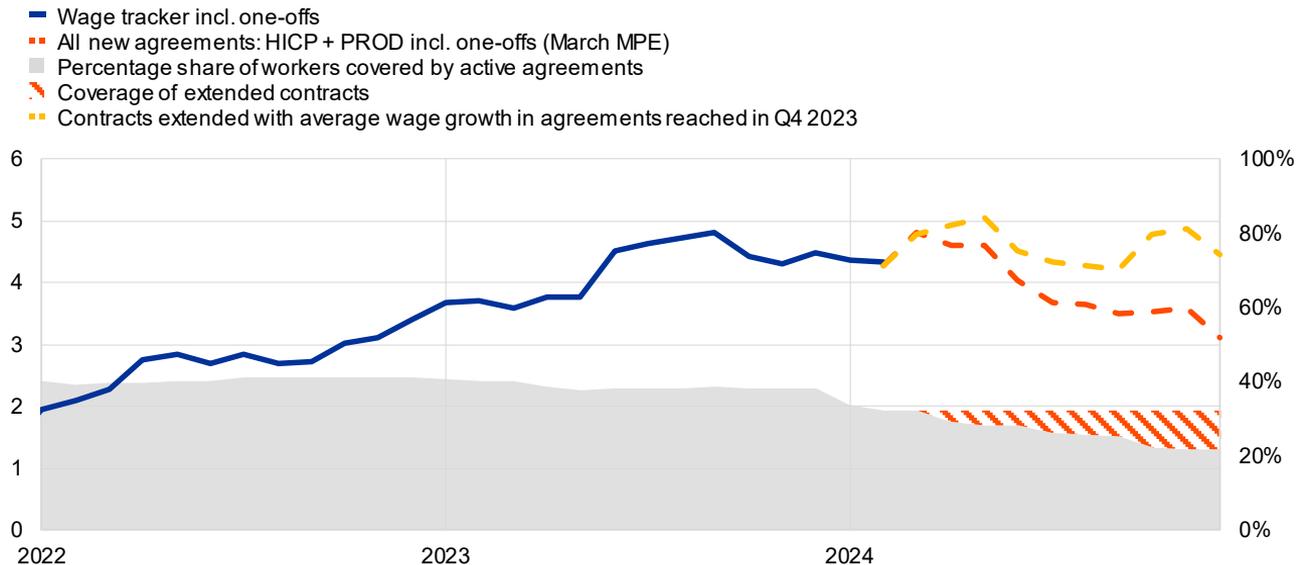- ■ Loans (inverted sign)

Sources: Eurostat, ECB and ECB staff calculations.
Notes: Each entry represents the cumulated value exceeding its trend estimated between 2015 and 2019. Liquid financial assets refer to cash and deposits. Non-financial assets refer to gross capital formation, which mainly comprises housing investment. Other financial assets mainly refer to equities and bonds and are measured as the residual between savings and the sum of liquid financial assets, non-financial assets and loans. Loans are shown with an inverted sign, since below-trend loan flows imply the use of excess savings to borrow less or repay loans.

Chart 22 Forward-looking wage tracker

(left-hand scale: annual percentage changes; right-hand scale: percentages)

- Wage tracker incl. one-offs
- All new agreements: HICP + PROD incl. one-offs (March MPE)
- Percentage share of workers covered by active agreements
- Coverage of extended contracts
- Contracts extended with average wage growth in agreements reached in Q4 2023

Sources: Dutch employer association (AWVN), Deutsche Bundesbank, Bank of Greece, Banco de España, Banque de France, Banca d'Italia and Oesterreichische Nationalbank.
Notes: The euro area aggregate is based on data for Germany, Greece, Spain, France, Italy, the Netherlands and Austria. The latest observations are for February 2024; for the two extension scenarios based on the March 2024 MPE and contracts signed in the fourth quarter of 2023, the latest observations are for December 2024.

Thank you for your attention!

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