



EUROPEAN CENTRAL BANK

EUROSYSTEM

Contribution to panel on "Inflation – Challenges for Policymakers and Researchers"

2024 CEBRA Annual Meeting

Frankfurt am Main

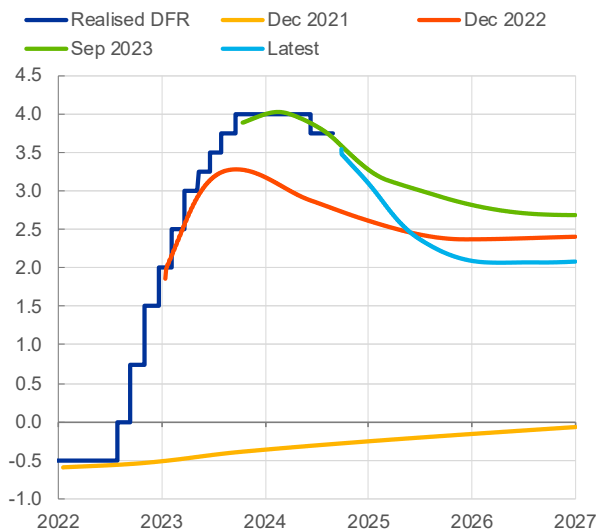


29 August 2024

Philip R. Lane
Member of the Executive Board

Policy rate path and risk-free curve

(percentages per annum)



Sources: Bloomberg and ECB calculations.
 Notes: The cut-off dates for the data used for the ESTR forward curves are 17 December 2021, 16 December 2022, 15 September 2023, and 27 August 2024.

Slope of the risk-free yield curve

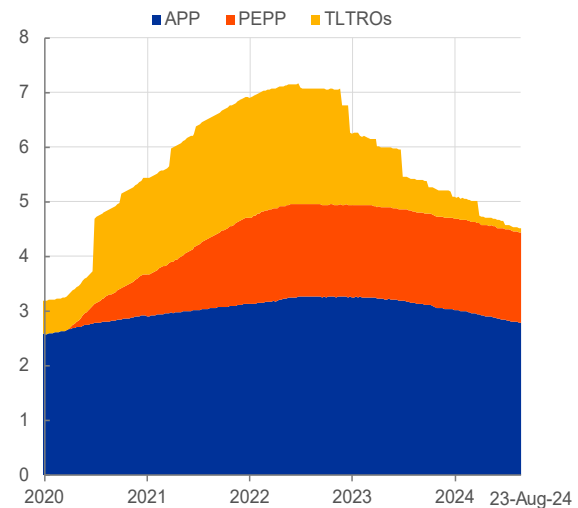
(percentage points)



Sources: Bloomberg and ECB calculations.
 Notes: The slope of the risk-free yield curve is calculated as the difference between the 10y and the 2y OIS rates.
 Latest observations: 27 August 2024.

Evolution of Eurosystem balance sheet

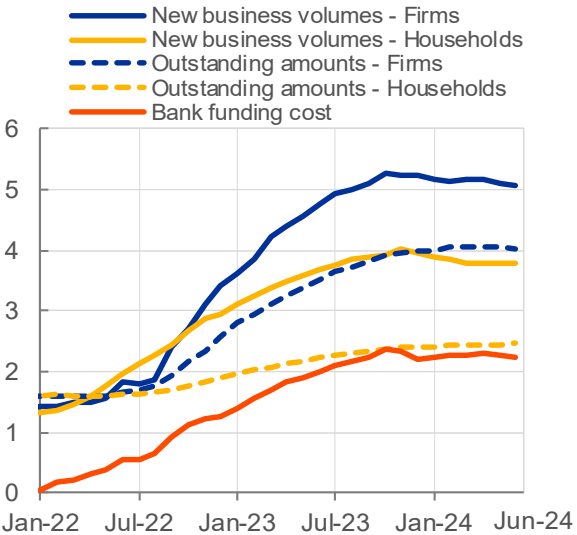
(trillion EUR)



Sources: ECB calculations.
 Notes: Purchase programmes are based on book value at amortised cost.
 Latest observations: 23 August 2024.

Bank lending rates to firms and households, plus bank funding costs

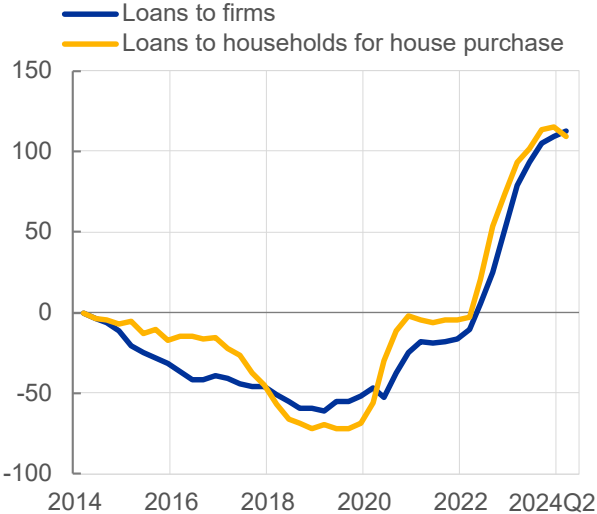
(percentages per annum)



Sources: ECB (BSI, MIR, MMSR) and ECB calculations.
 Notes: The indicator for the total cost of borrowing for firms and households are calculated by aggregating short-term and long-term rates using a 24-month moving average of new business volumes. The bank funding cost series is a weighted average of new business costs for overnight deposits, deposits redeemable at notice, time deposits, bonds, and interbank borrowing, weighted by outstanding amounts. The latest observations are for June 2024.

Evolution of bank credit standards

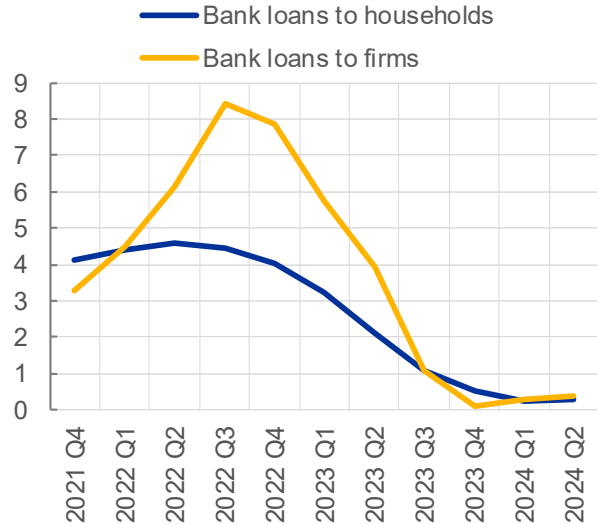
(cumulated net percentages of banks reporting a tightening of credit standards)



Sources: ECB (BLS) and ECB calculations.
 Notes: Net percentages for credit standards 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". Cumulation starts in the first quarter of 2014. The latest observations are the second quarter of 2024.

Credit volumes to firms and households

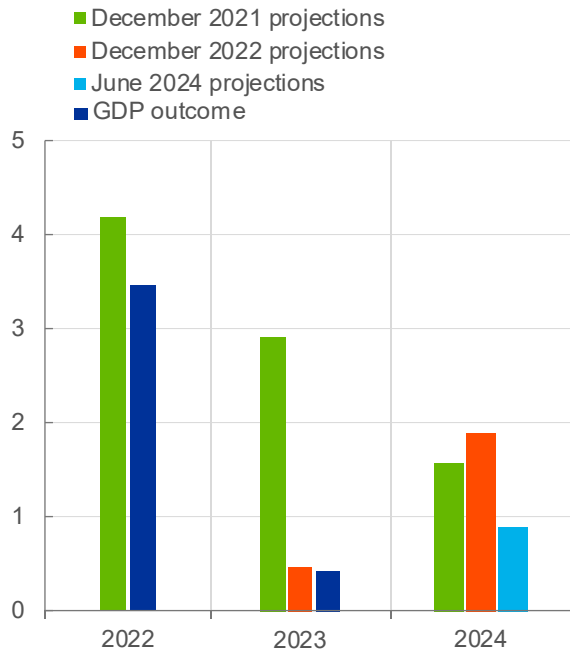
(annual percentage changes)



Source: ECB (BSI).
 Notes: Bank loans to firms are adjusted for sales, securitisation and cash pooling. Bank loans to households are adjusted for sales and securitisation. The latest observations are for the second quarter of 2024.

Real GDP and projections

(annual growth rate)

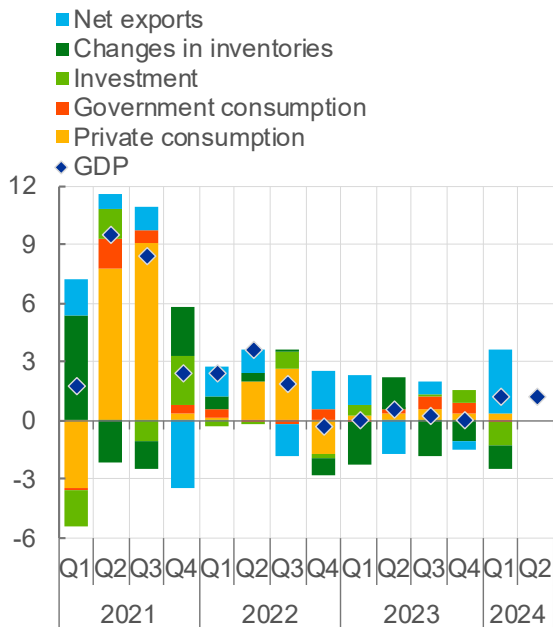


Sources: Eurostat; June 2024, December 2022 and December 2021 Eurosystem staff projections; and ECB calculations.

The latest observations are 2023 for GDP and 2024 for projections.

GDP growth contributions

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

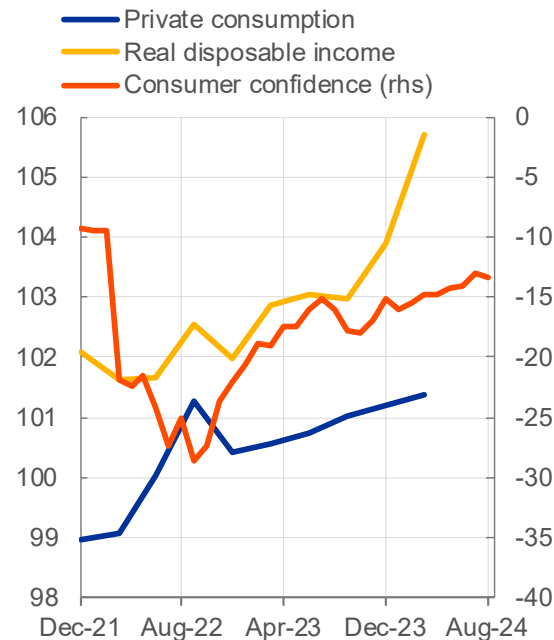


Sources: Eurostat and ECB calculations.

Notes: Annualised contributions do not exactly sum to annualised quarter-on-quarter GDP growth rates due to transformations of the underlying data. The latest observations are for the first quarter of 2024 for the contributions and the second quarter of 2024 for GDP.

Consumption, real income and confidence

(lhs: index Q4 2019 = 100; rhs: net percentage balance)

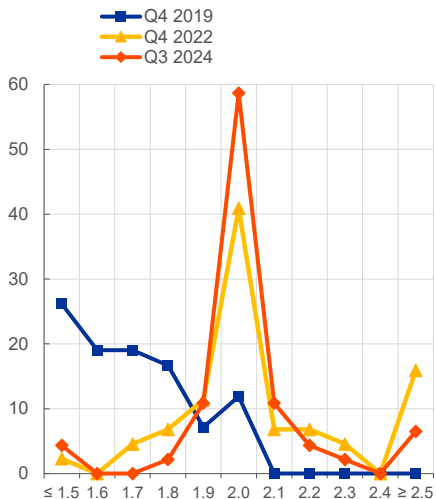


Sources: Eurostat and European Commission.

Note: The latest observations are for the first quarter of 2024 for private consumption and disposable income, and August 2024 for consumer confidence.

SPF: distribution of longer-term inflation expectations

(percentage of respondents)

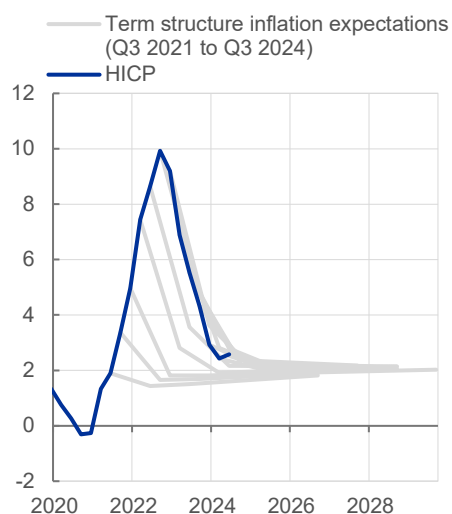


Sources: SPF and ECB calculations.

Notes: The vertical axis shows percentages of respondents, the horizontal axis shows the HICP inflation rate. Longer-term inflation expectations refer to four to five years ahead. The latest observations are for the third quarter of 2024.

Term structure of inflation expectations from professional forecasters

(annual percentage changes)

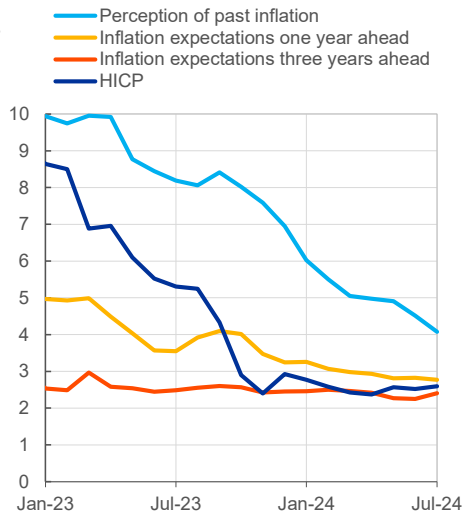


Sources: Eurostat, ECB SPF and ECB calculations.

Notes: Term structure of inflation expectations show expectations for different horizons in past rounds of the SPF. Latest observations: July 2024 for HICP.

ECB consumer expectations survey

(annual percentage changes)

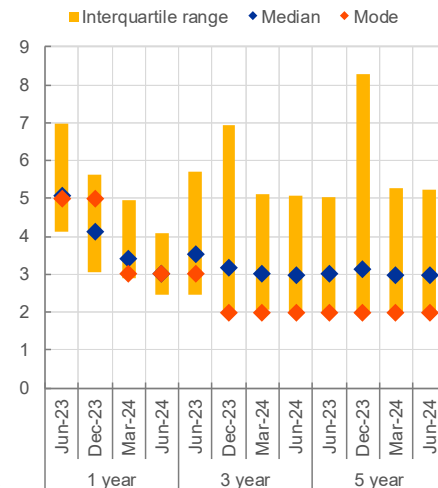


Sources: Eurostat and ECB Consumer Expectations Survey (CES).

Notes: The series refer to the median value for CES. Latest observations: July 2024.

Firms' expectations about euro area inflation at different horizons

(percentages per annum)

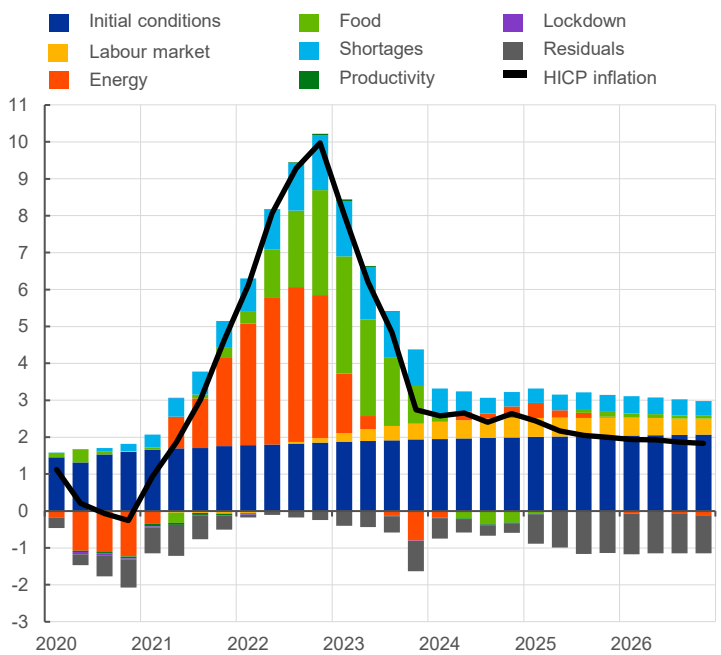


Sources: Survey on the Access to Finance of Enterprises (SAFE) and ECB calculations.

Notes: Survey-weighted median, mode and interquartile ranges of firms' expectations about euro area inflation in one year, three years and five years, respectively. All enterprises. Latest observation: June 2024.

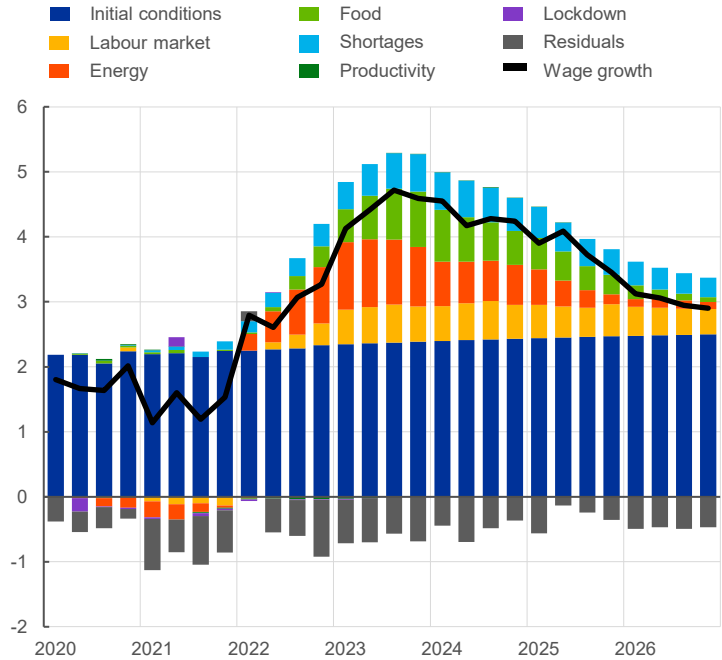
HICP inflation

(year-on-year growth rate, pp contributions)



Negotiated wage growth

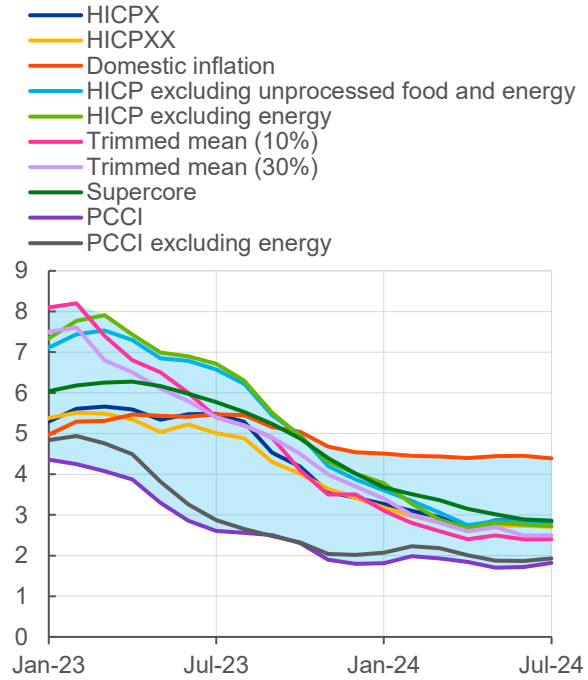
(year-on-year growth rate, pp contributions)



Source: ECB calculations based on Arce, O., Ciccarelli, M., Kornprobst, A. and Montes-Galdón, C. (2024), "What caused the euro area post-pandemic inflation?", Occasional Paper Series, No 343, ECB
 Notes: The figures show decompositions of the sources of seasonally-adjusted annual wage growth and HICP inflation based on the solution of the full model and the implied impulse response functions. The out-sample projection is constructed by performing a conditional forecast starting in 2020Q1 conditional on realised variables between 2020Q1 and 2024Q1 and technical assumptions and inverted residuals between 2024Q2 and 2026Q4 such that HICP in the conditional projection is equal to the seasonally-adjusted June 2024 BMPE projection. Assumptions from the June 2024 BMPE baseline correspond to energy and food prices inflation and productivity growth. Labour market tightness is assumed to remain constant. The "shortages" (measured by the GSCPI) are known up to 2024Q2 and projected according to an AR(3) process thereafter. The historical decomposition treats the projection as data and is carried out from 2020Q1 onwards to compute the contributions of the initial conditions and of the exogenous variables.

Underlying inflation and inflation momentum

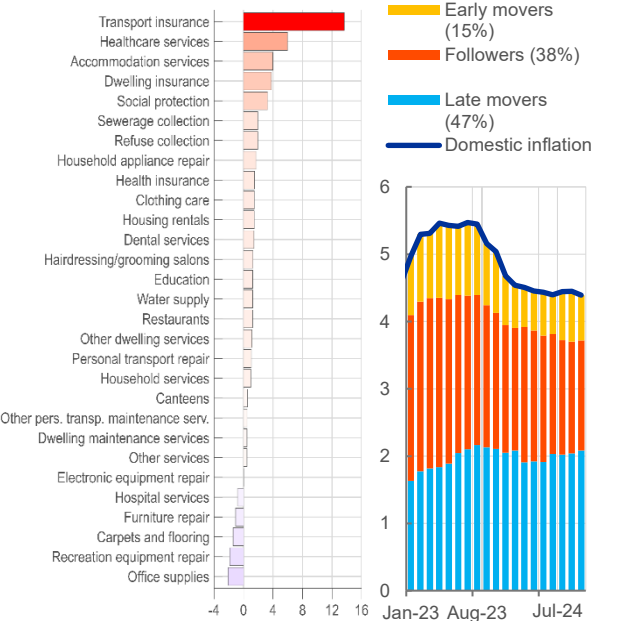
Measures of underlying inflation (annual percentage changes)



Sources: Eurostat and ECB calculations.
 Notes: HICP refers to headline inflation, HICPX to HICP excluding food and energy, HICPXX to HICP excluding food, energy, travel-related items and clothing, and PCCI to Persistent and Common Component of Inflation.
 Latest observations: July 2024.

Domestic inflation: momentum of items and decomposition into early, follow and late movers

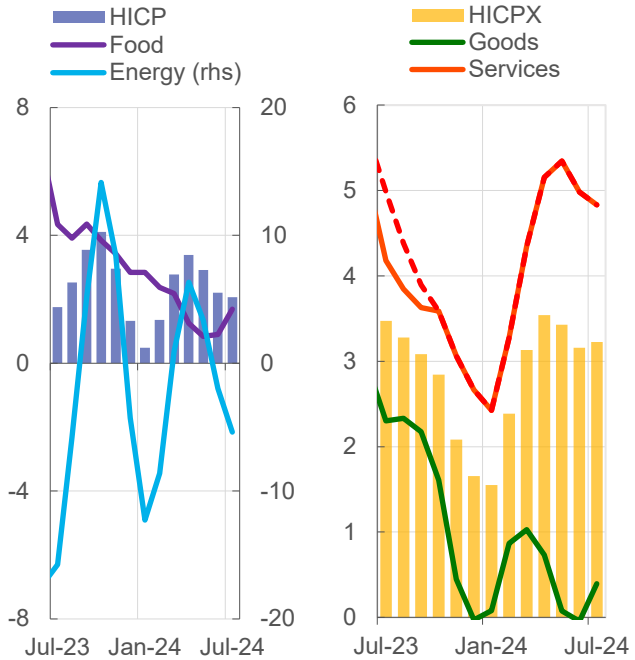
(left: annualised 3m-o-3m percentage changes, right: annual percentage changes and percentage point contributions)



Sources: Eurostat and ECB calculations.
 Note: Taxonomy based on "The heterogeneous developments of the components of euro-area core inflation", Box in Banca d'Italia Economic Bulletin No. 4/2023.
 Latest observation: July 2024.

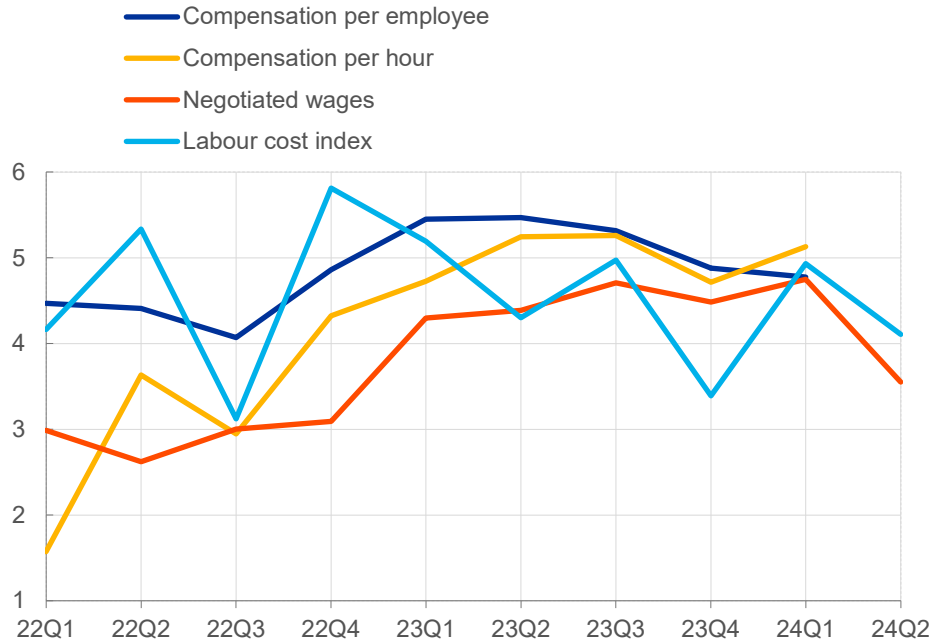
Momentum of inflation and its subcomponents

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



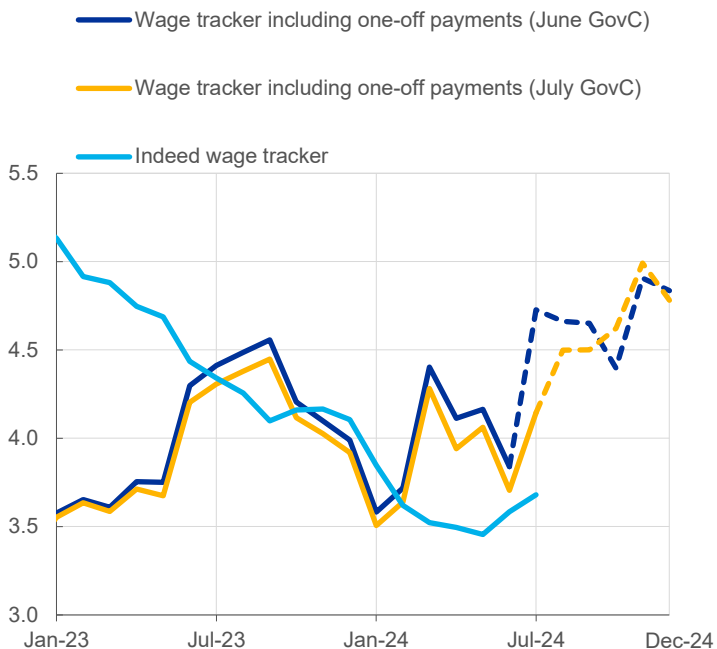
Sources: Eurostat and ECB calculations.
 Notes: Calculated using seasonally adjusted data. The dashed red line corresponds to services adjusted for effect of 49-euro ticket introduced in Germany in May 2023.
 Latest observation: July 2024.

Labour cost indicators (annual percentage changes)



Sources: Eurostat and ECB calculations.
Notes: Compensation per employee and per hour are calculated from calendar and seasonally adjusted data. The latest observations are for the second quarter of 2024 for negotiated wages and for the labour cost index and for the first quarter of 2024 for the rest.

Euro area wage tracker (annual percentage changes)



Wage tracker scenario analysis (annual percentage change)

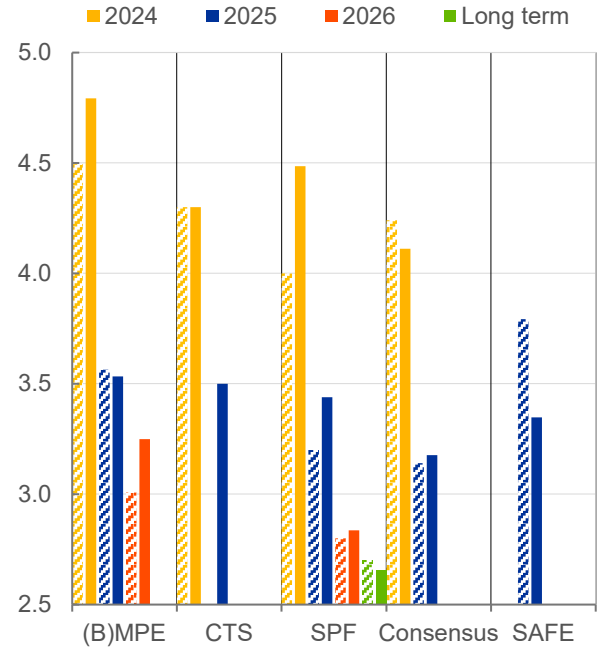


Sources: Deutsche Bundesbank, Banco de España, the Dutch employer association (AWVN), Oesterreichische Nationalbank, Bank of Greece, Banca d'Italia, Banque de France, and Indeed. Notes: Euro area aggregate based on DE, FR, IT, ES, NL, AT, GR, as of July 2024. One-off payments are spread over 12 months from the agreed disbursement date - smoothing the impact of one-off payments on wage growth. Latest observations: December 2024 for the ECB wage tracker, July 2024 for Indeed wage tracker.

Sources: ECB wage tracker database. Notes: The forward-looking wage tracker, depicted by a yellow dashed line, weights future effects of one-off payments with respect to the total country-specific coverage and not solely active coverage at any point in the future. The purple dashed line indicates the forward-looking wage tracker if all expiring agreements are prolonged with their country-specific growth rates in latest agreements in Q2 2024.

Wage expectations

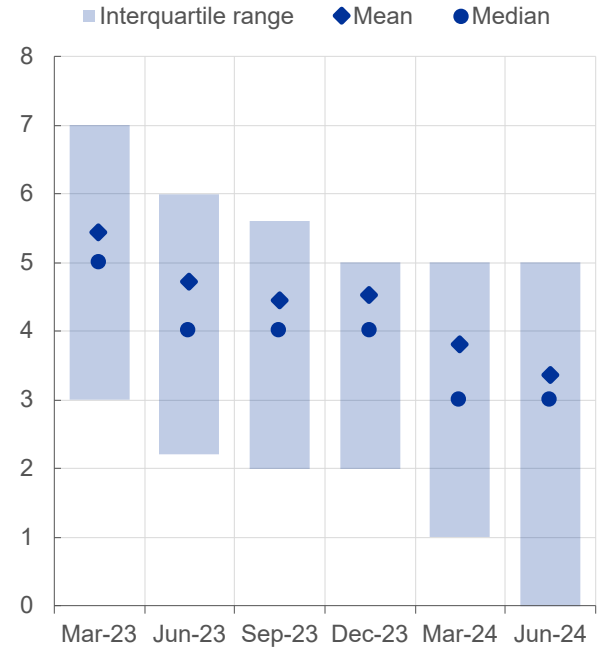
Survey-based wage expectations (annual percentage changes)



Sources: April and July 2024 for the Corporate Telephone Survey (CTS), Q2 and Q3 2024 for the Survey of Professional Forecasters (SPF), March 2024 and June 2024 (B)MPE, July and August 2024 for Consensus economics and Q1 and Q2 2024 for SAFE. Notes: (B)MPE refers to CPE projections. SAFE wage expectations are for the next 12 months. Shaded bars refer to the previous survey, while the solid bars refer to the last survey.

SAFE: wage costs expectations one year ahead

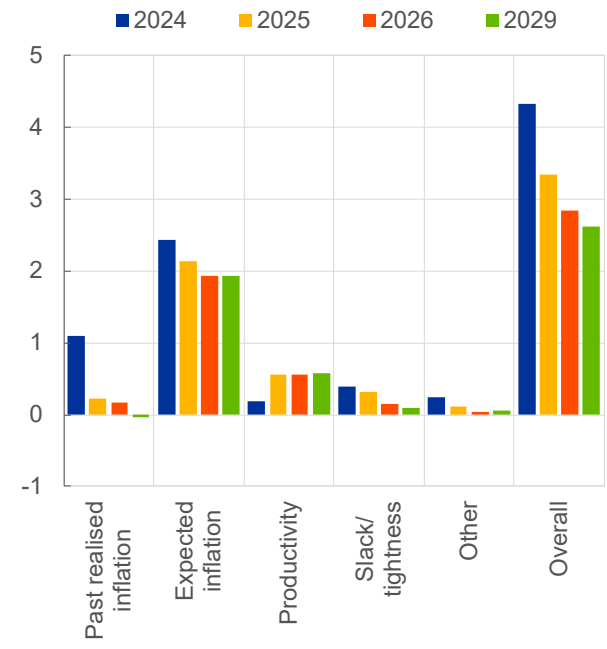
(percentage changes over the next 12 months)



Source: Survey on the Access to Finance of Enterprises (SAFE). Notes: Mean and median euro area firm expectations of changes in wages of current employees for the next 12 months, along with interquartile ranges, using survey weights. The statistics are computed after trimming the data at the country-specific 1st and 99th percentiles. Data for all enterprises. Latest observations: June 2024.

Decomposition of expectations for labour costs

(annual percentage changes)



Sources: Q3 2024 for the Survey of Professional Forecasters (SPF). Notes: Based on 13 respondents. Productivity denotes labour productivity.