Inflation developments and September 2023 MPE projections

(annual percentage changes, pp. contributions)
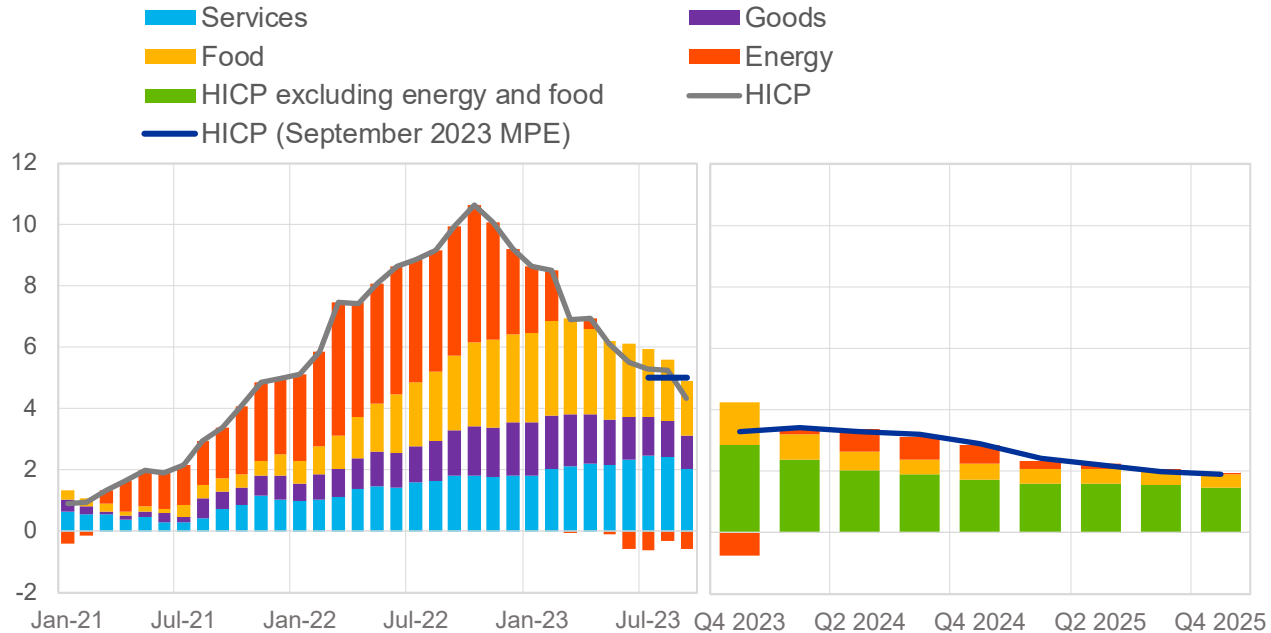
Sources: Eurostat, ECB staff.
Notes: Latest data observation refers to September 2023 HICP (Flash). For the September MPE the cut-off date for technical assumptions, such as those for oil prices and exchange rates, was 22 August 2023. The macroeconomic projections for the euro area were finalised on 30 August 2023. Goods refers to non energy industrial goods.

Outlook for energy commodities
(annual percentage changes)

Oil price
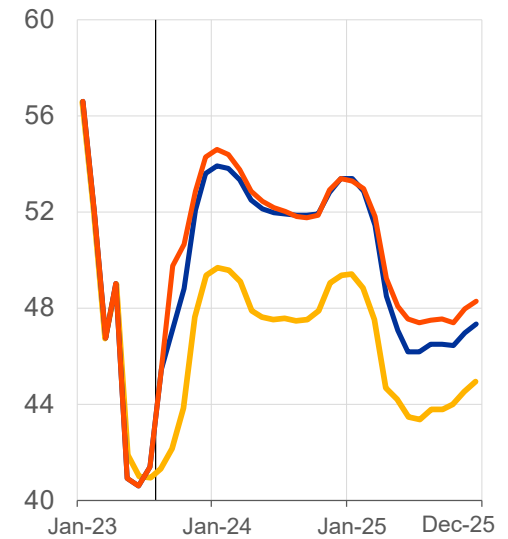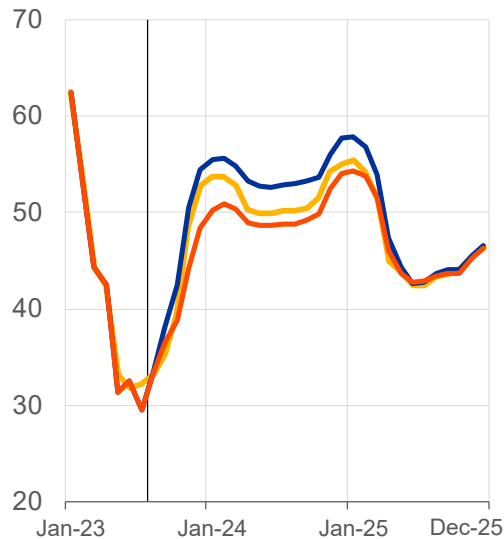### (USD / Barrel)

Gas price
(EUR / MWh)

Synthetic energy index
(USD / MWh)

—— June 2023 BMPE (cut-off 23 May)   —— September MPE (cut-off 22 August)   —— Updated futures (cut-off 28 September)
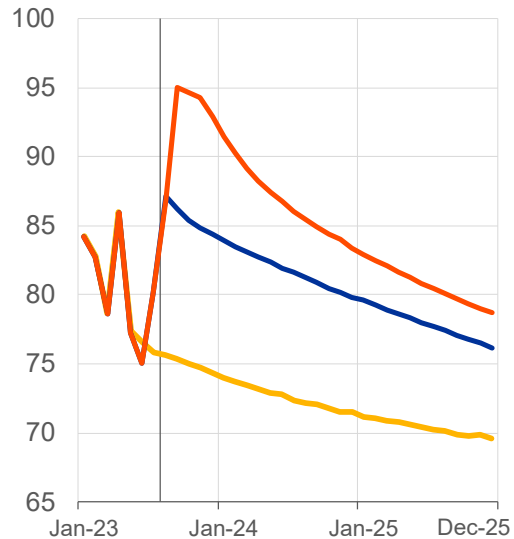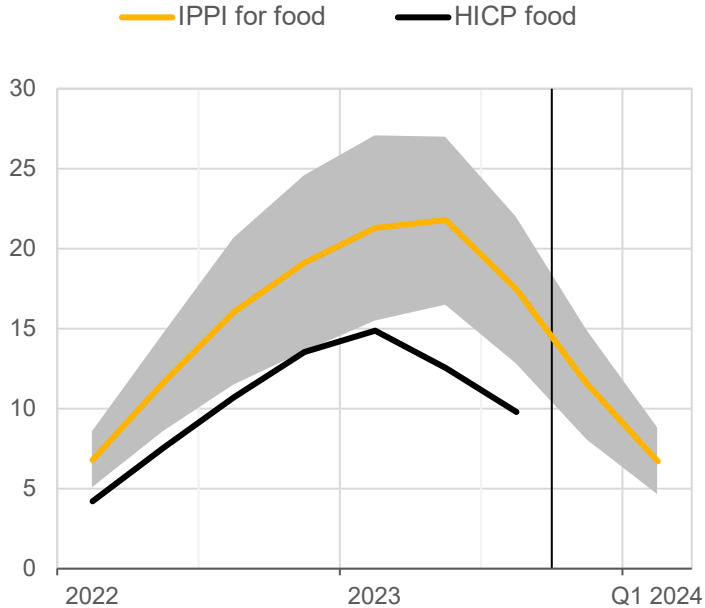
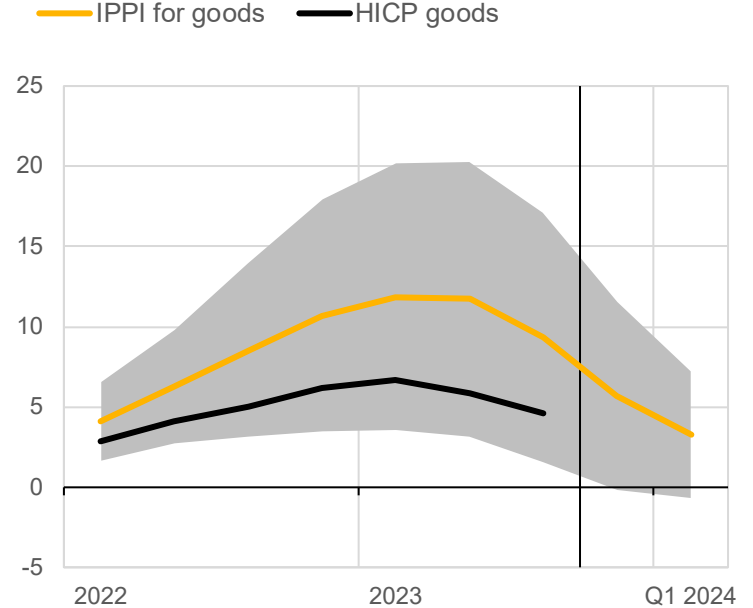Sources: Refinitiv, ECB staff, ECB calculations.
Notes: The synthetic index is a weighted average of oil and gas price developments based on net import weights (roughly 60% for oil and 40% for gas). The vertical black line refer to the cut-off point for the September MPE projections.

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Indicator of producer price pressures (IPPI) and HICP for food
(annual percentage changes)

IPPI for food   HICP food

Sources: Eurostat, ECB estimates.
Notes: Latest observation of PPI used for IPPI is July 2023, latest observation for HICP refers to 2023 Q3 (incl. September 2023 Flash). The vertical line stands after the latest observation of the actual data.

Indicator of producer price pressures (IPPI) and HICP for goods
(annual percentage changes)

IPPI for goods   HICP goods

Sources: Eurostat, ECB estimates.
Notes: Latest observation of PPI used for IPPI is July 2023, latest observation for HICP refers to 2023 Q3 (incl. September 2023 Flash). Goods refers to non energy industrial goods. The vertical line stands after the latest observation of the actual data.
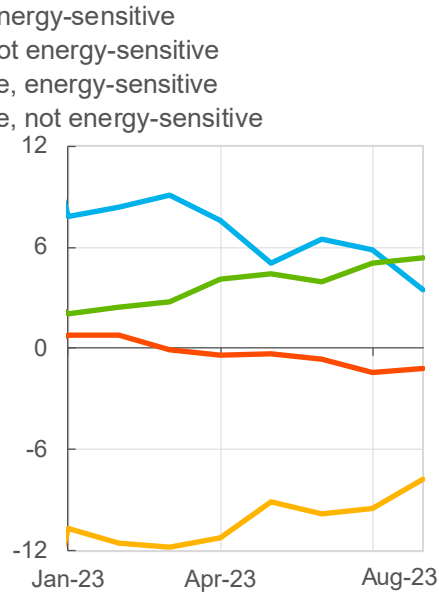
Services inflation

Services inflation: contact-intensive and energy-sensitive items

Annual percentage change
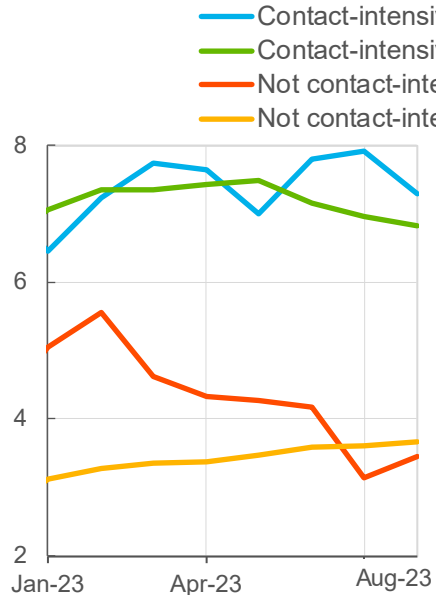
Contribution to services inflation
(percentage point deviations from expenditure share)

— Contact-intensive, energy-sensitive
— Contact-intensive, not energy-sensitive
— Not contact-intensive, energy-sensitive
— Not contact-intensive, not energy-sensitive

Sources: Eurostat and ECB staff calculations.
Notes: Energy sensitive component based on items with a share of energy in total (direct and indirect) costs above the average energy share across all services items. Percentage point contributions to services inflation in the right panel are expressed as deviation from the expenditure share. The latest observations are August 2023.

Price changes related to travel and tourism
(annual percentage change)

— PMI output prices (EU)
— HICP restaurants, cafes and the like
— HICP accomodation
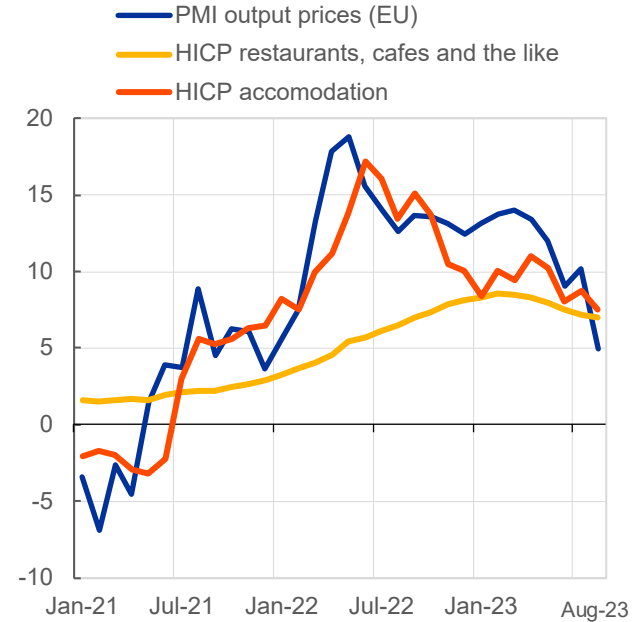
Sources: Eurostat, Markit and ECB calculations.
Latest observation: August 2023.

Inflation momentum for HICP and sub-components
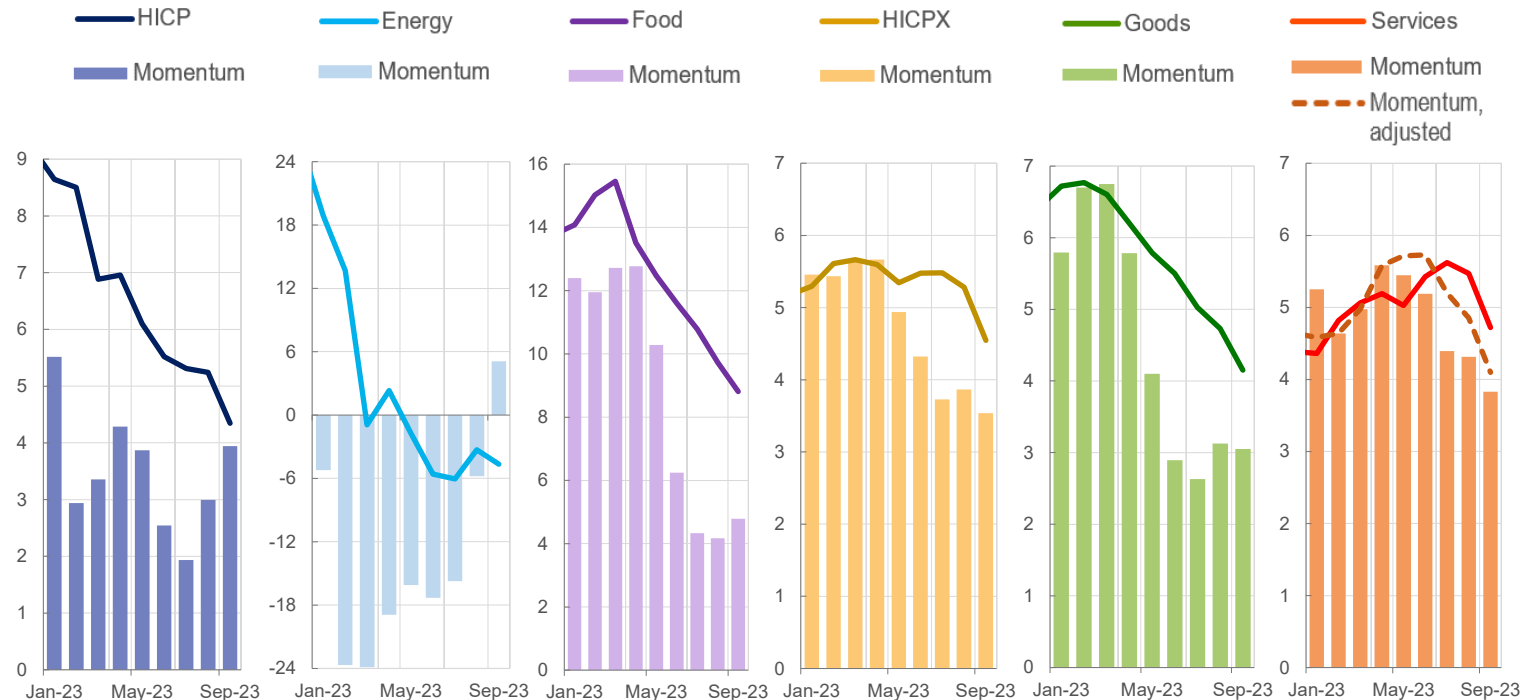### (annual percentage change, 3m-o-3m annualised percentage change)

Sources: Eurostat and ECB calculations.
Notes: Momentum is defined as annualised 3 months-on-3 months rates, seasonally and working day adjusted data. HICPX: HICP excluding energy and food, Goods are non-energy industrial goods. The corrected momentum series on the right hand panel corresponds to annualised 3m-o-3m rates excluding the effects of the 9 euro ticket and the 49 euro ticket introduced in Germany, in June to August 2022 and from May 2023 respectively.
Latest observation: September 2023.

Measures of underlying inflation
(annual percentage change)

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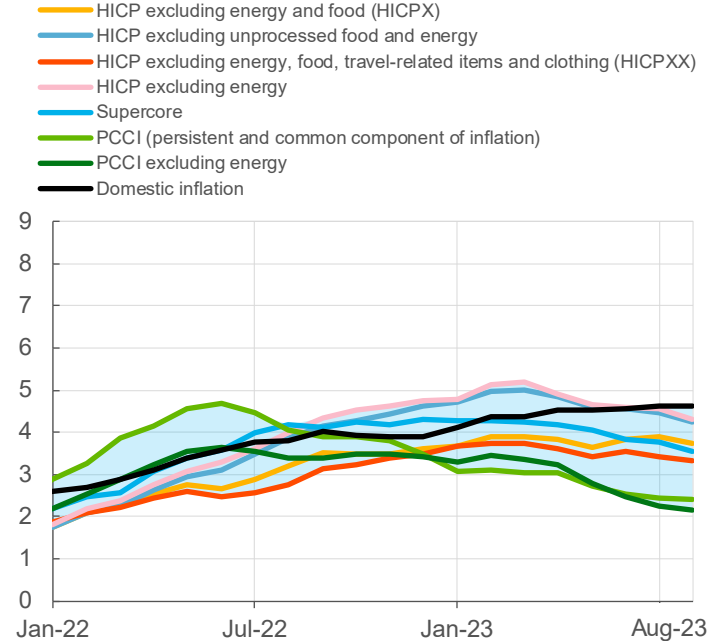- Trimmed mean (10%)
- Trimmed mean (30%)
- Weighted median
- Supercore
- PCCI (persistent and common component of inflation)
- PCCI excluding energy
- Domestic inflation

Sources: Eurostat and ECB calculations.
Latest observations: September 2023 (flash) for HICPX, HICP excluding unprocessed food and energy, and HICP excluding energy, August 2023 for the rest.

Adjusted measures of underlying inflation
(annual percentage changes)

- HICP excluding energy and food (HICPX)
- HICP excluding unprocessed food and energy
- HICP excluding energy, food, travel-related items and clothing (HICPXX)
- HICP excluding energy
- Supercore
- PCCI (persistent and common component of inflation)
- PCCI excluding energy
- Domestic inflation


Sources: Eurostat and ECB calculations.
Latest observation: August 2023. Notes: The adjusted measures are cleaned from energy and supply-bottleneck shocks using a large SVAR identified with zero and sign restrictions following the methodology of Korobilis (2022), see Bańbura, Bobeica and Martínez-Hernández, 2023 (forthcoming).

Wages and domestic price pressures

Experimental forward looking ECB wage tracker
(annual percentage changes)

- Latest agreements excluding one-offs
- Latest agreements including one-offs
- Indeed Wage Tracker
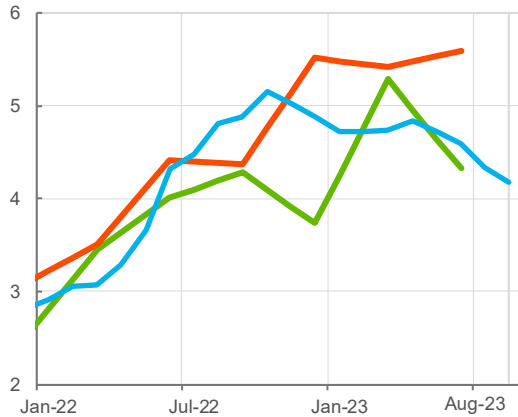
Sources: Calculated based on micro data on wage agreements provided by Bundesbank, Banco de España, the Dutch employer association (AWVN), Oesterreichische Nationalbank, Bank of Greece, Banca d 'Italia and Banque de France. Note: EA aggregate based on ES, IT, GR, AT, DE, NL, FR as of September 2023. Indicator of latest wage agreements shows the wage growth implied by agreements reached in a quarter for 12 month ahead. Indeed tracker measures wage growth in online job ads, computed by the Central Bank of Ireland. Latest observations: June 2023 for latest agreements including and excluding one-offs, August 2023 for Indeed wage tracker.

Compensation per employee
(annual percentage changes)

- Compensation per employee (September MPE)
- Q2 2023 Outcome
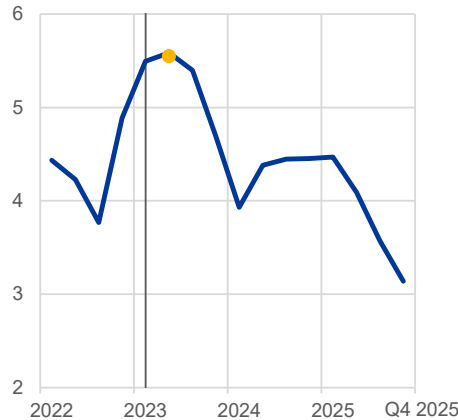
Sources: Eurostat, ECB staff.
Notes: The cut-off date for technical assumptions in the September MPE projections was 22 August 2023 and the macroeconomic projections for the euro area were finalised on 30 August 2023.The vertical line refers to the latest actual outcome available for the September 2023 MPE.

Sectoral unit profits
(annualised percentage changes)

- Q4 2022 (annualised growth since Q1 2022)
- Q2 2023 (annualised growth rate since Q4 2022)
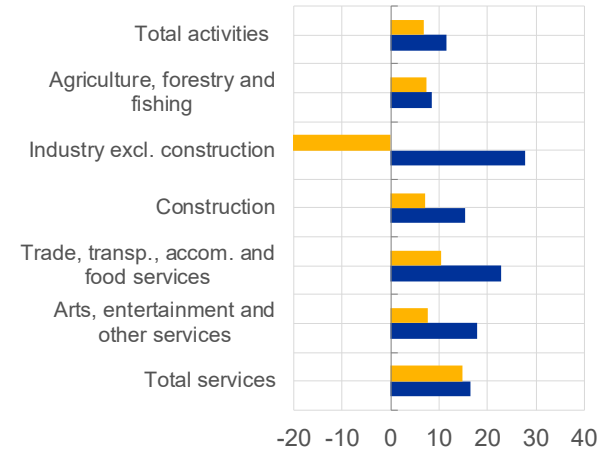
Sources: Eurostat and ECB calculations.
Notes: Differences in unit profits calculated from total value added and that from GDP can be due to conceptual differences between GDP and value added.

Inflation expectations

Professional forecasters
(annual percentage change)

- SPF (4-5 years ahead)
- Consensus (5 years ahead)
- SMA (long-term)
- Weighted average of surveys
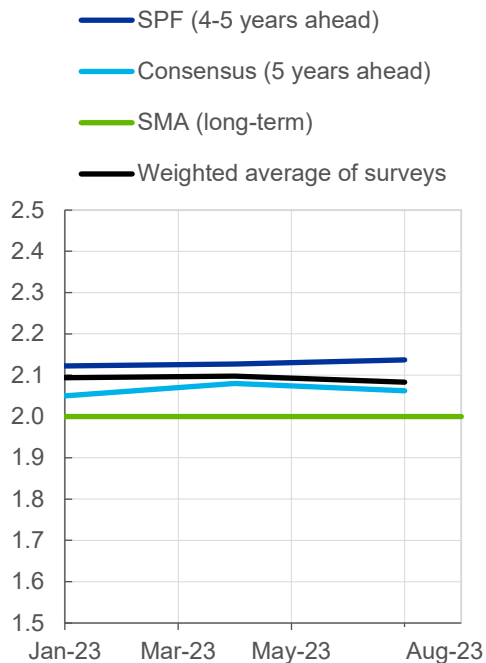
Sources: Consensus Economics, SPF, SMA.
Note: The weighted average of surveys is computed using the number of respondents in each survey as a weight.
Latest observations: August 2023 for SMA, July 2023 for the rest.
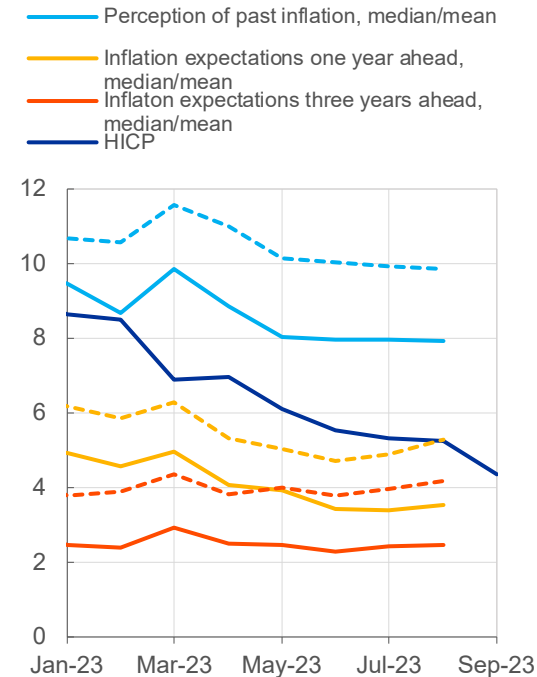
Model-implied market-based
(annual percentage change)

- 1y4y expectations component
- 5y5y expectations component
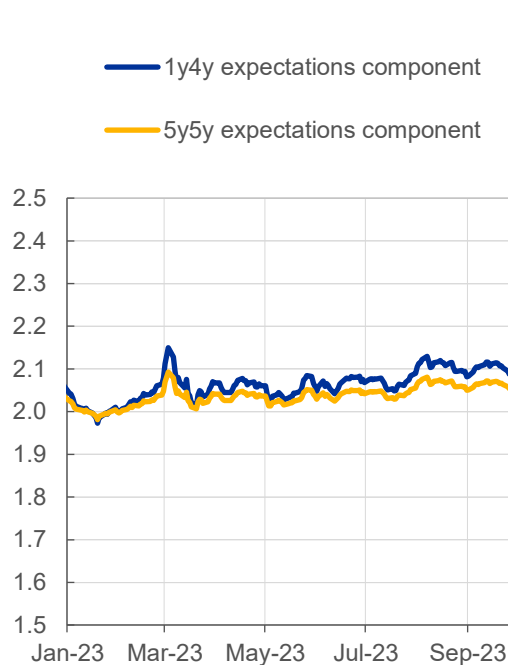
Sources: Bloomberg, Refinitiv and ECB calculations. Note: Premia-adjusted forward ILS rates are average estimates from two affine term structure models as in Joslin et al. (2011) applied to ILS rates non adjusted for the indexation lag; see Burban et al. (2022), ECB Economic Bulletin Issue 8, 2021, Box 4. Inflation compensation rates refer to a linear interpolation between fixings and 1-year forward ILS rates. Latest observation: 26 September 2023.

Consumers
(annual percentage change)

- Perception of past inflation, median/mean
- Inflation expectations one year ahead, median/mean
- Inflaton expectations three years ahead, median/mean
- HICP

Sources: CES, Eurostat and ECB calculations.
Note: Solid/dashed lines represent the median/mean.
Latest observations: September 2023 (flash) for HICP, August 2023 for the rest.

Central and eastern EA countries: inflation and unit labour costs

HICP and components
(percentage changes in HICP level from January 2020 to August 2023 and percentage point contributions – deviations from the euro area)

Legend:
- Energy
- Food
- Goods
- Services
- HICP
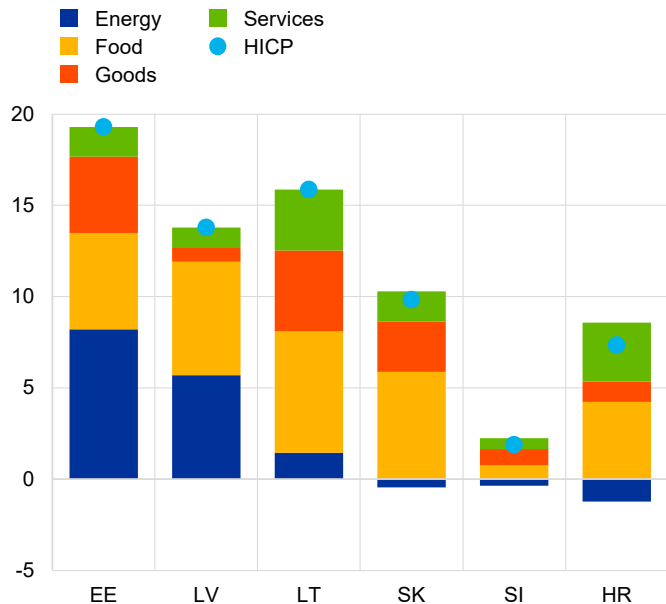
Source: Eurostat and ECB calculations.
Notes: "Goods" refers to non-energy industrial goods. Based on Falagiarda, M. (2023), "High inflation in euro area countries of central and eastern Europe: drivers and implications", forthcoming in the ECB Blog.

Unit labour costs and components
(percentage changes in ULC from 2019Q4 to 2023Q2 and percentage point contributions)

Legend:
- Unit labour cost
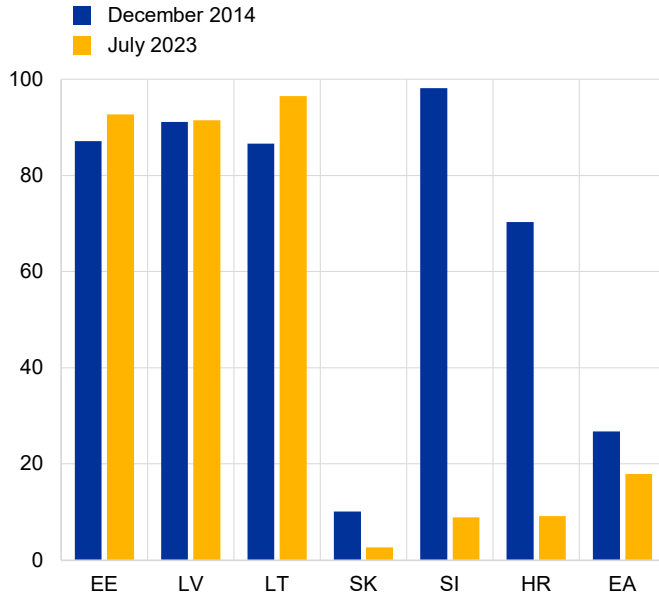- Compensation per employee
- Productivity
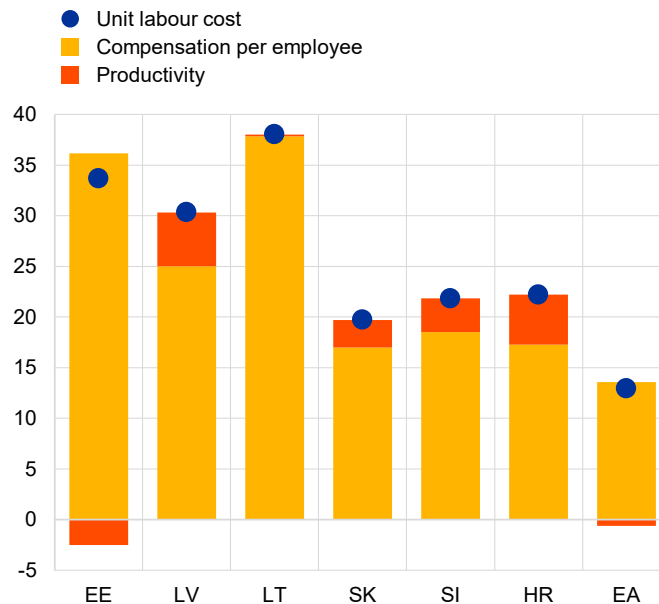
Source: Eurostat and ECB calculations.
Notes: Based on Falagiarda, M. (2023), "High inflation in euro area countries of central and eastern Europe: drivers and implications", forthcoming in the ECB Blog.

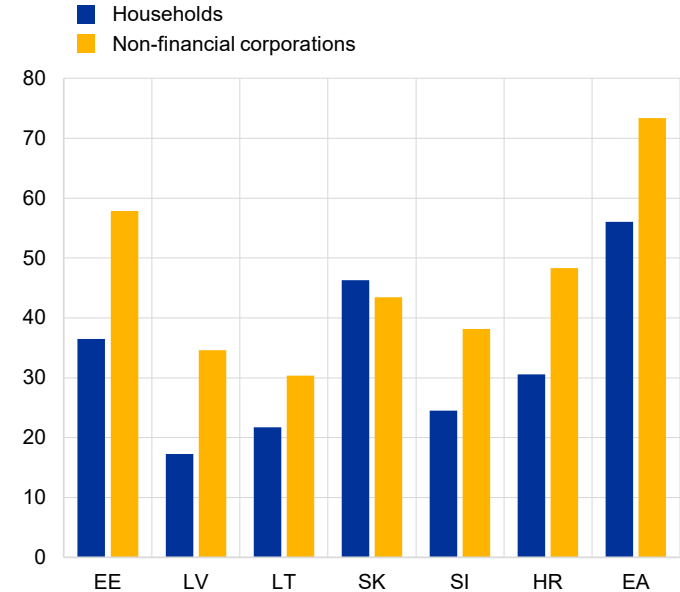# Central and eastern EA countries: mortgage rates and private debt

Share of variable-rate mortgages to total new loans
(percentages)

Source: ECB and ECB calculations.
Notes: The share is a 24-month moving average of the fraction of new lending volumes with a floating rate and an initial fixation period of up to 1 year over total new lending volumes. Based on Falagiarda, M. (2023), "High inflation in euro area countries of central and eastern Europe: drivers and implications", forthcoming in the ECB Blog.

Private sector indebtedness
(percentages of GDP)

Sources: Eurostat and ECB calculations.
Notes: Gross private sector indebtedness in 2023Q1. Non-consolidated data. Based on Falagiarda, M. (2023), "High inflation in euro area countries of central and eastern Europe: drivers and implications", forthcoming in the ECB Blog.

Monetary policy decisions

Past decisions

- Policy rate increased by 450 basis points over the last ten meetings

- Balance sheet reduction:
    - € 1600 billion through discontinuation of targeted longer-term refinancing operations (TLTRO III)
    - € 109 billion through slowdown and subsequent discontinuation of reinvestments under the asset purchase programme (APP)

Looking ahead

- *"Based on our current assessment, we consider that the key ECB interest rates have reached levels that, maintained for a sufficiently long duration, will make a substantial contribution to the timely return of inflation to our target. Our future decisions will ensure that the key ECB interest rates will be set at sufficiently restrictive levels for as long as necessary. We will continue to follow a data-dependent approach to determining the appropriate level and duration of restriction."*

Monetary policy assessment

"In particular, our interest rate decisions will 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."*