Monetary policy in times of pandemic and war

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Economic growth and inflation in the euro area since the start of the pandemic

**Real GDP growth**
(index: Q4 2019 = 100)
- Dec. 22 ECB staff projections
- Realised GDP
- March 2020 ECB staff projections

**Inflation**
(annual percentage changes, quarterly data)
- Dec. 22 Eurosystem staff projections
- Realised HICP
- January 2023 - Flash estimate
- March 2020 ECB staff projections

Sources: Eurostat, ECB and Eurosystem.
Latest observation: Q4 2022.
War had a negative impact on growth but no deep recession expected

Real GDP growth projections
(annual percentage changes)

Sources: ECB and Eurosystem.

Citi economic surprise indices

Sources: Bloomberg, Citi.
Latest observation: 3 February 2023.
Euro area unemployment rate at record low level amid labour shortages

Unemployment and vacancies
(left-hand scale: percentages; right-hand scale: ratio)

- Unemployment rate
- Unemployment to vacancies ratio (rhs)

Limits to production – shortage of labour
(percentage balances)

Source: Eurostat, Haver Analytics and ECB staff calculations.
Notes: Eurostat vacancies are reported only in firms with 10 or more employees in France. Latest observations: unemployment rate: 2022 Q3; UV ratio: 2022 Q3 without Portugal.

Source: European Commission.
Notes: Survey in industry and the services sector: percentage of firms who indicate labour shortages as limits on production and business. Latest observation: 2022 Q4 (December 2022).
Inflation has started to edge down after sharp increase to historically high levels

Euro area HICP inflation
(annual percentage changes)

Sources: Eurostat and ECB calculations.
Latest observation: January 2023 (flash).
Decline in inflation driven by energy contribution, while other components still rise.

Contributions to euro area inflation
(annual percentage changes and percentage point contribution)

Sources: Eurostat and ECB calculations.
Notes: January contributions are preliminary.
Latest observation: January 2023 (flash).
Inflation momentum remains high, especially for services.

**Inflation momentum for HICP and its sub-components**

(annual percentage change; annualised 3m-o-3m percentage change)

Sources: Eurostat and ECB calculations.
Note: Seasonally-adjusted data.
Latest observation: January 2023 (flash) for inflation rates and December 2022 for inflation momentum.
Gas prices have dropped to pre-war levels and supply bottlenecks are easing.

**EU natural gas prices and pipeline flows from Russia to Europe**

- Russian natural gas flows to Europe
- EU Natural Gas (rhs)

**Supply bottlenecks**

(lhs: standard deviations; rhs: USD per TEU)

- NYFED global supply chain pressure index
- EA supply-chain disruption strain
- Global shipping cost

Sources: Bloomberg and ECB calculations.
Notes: The chart shows natural gas prices in Europe (Dutch TTF futures) in addition to natural gas pipeline flows from Russia to Europe (via Nord Stream to Germany, Yamal to Poland, Ukraine and Bulgaria). Latest observation: 2 February 2023.

Sources: Haver Analytics, Refinitiv and ECB calculations.
Notes: Global shipping cost is Freightos Baltic aggregate across major trade routes. TEU stands for twenty-foot equivalent unit shipping container. Latest observation: December 2022.
Underlying inflation pressures remain high with most HICP components at elevated levels.
Nominal wage growth has picked up significantly, while real wages are falling sharply.

**Negotiated wage growth, ECB and Indeed wage trackers**

(annual percentage changes)

- Negotiated wages
- ECB wage tracker
- Indeed wage tracker

**Real compensation per employee**

(index: 2017 Q1 = 100)

Sources: Adrjan, Pawel & Reamonn Lydon (2022), Wage Growth in Europe: Evidence From Job Ads – Central Bank of Ireland - Economic letter - Vol 2022, No. 7 (November), ECB and Eurostat. Notes: the ECB wage tracker is 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. For FR see also: Gautier, E. (2023): Negotiated wage increases: what is the picture for 2022? EA aggregate based on ES, IT, GR, AT, DE, NL and FR.

Latest observations: 2022 Q4 (based on Oct and Nov data) for negotiated wages and December 2022 for ECB wage tracker and Indeed data.

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Sources: Eurostat and ECB calculations.
Notes: Compensation per employee is deflated using the HICP. Latest observation: 2022Q3.
Fiscal support mainly untargeted and inflationary over the medium term

**Euro area energy measures: targeted vs. untargeted and environmental considerations**

- **Degree of targeting**
  - Targeted support
  - Not-targeted support
  - Other

- **Environmental considerations**
  - Supporting short-run fossil fuel consumption
  - Environmentally neutral and/or not classifiable
  - Contributing directly to the green transition

Sources: Working Group of Public Finances, December 2022 BMPE and ECB calculations.
Notes: The classification of budgetary policy measures to mitigate the impact of high energy prices on households and firms is in line with the European Commission methodology and also reflects the Eurosystem staff assessment. The shares are calculated based on the total policy measures in 2022 and 2023. The category “Other” includes measures such as government purchases to fill gas storage. The degree of targeting refers to support targeted at vulnerable households and firms. For households, a measure is considered targeted if there is some form of means testing. For firms, a measure is considered targeted if it applies to specific energy-intensive activities as defined by the European Commission.

**Impact of discretionary fiscal measures on inflation outlook**

- **Percentage points**

Source: ECB calculations based on structured questionnaire of Working Group of Forecasting.
Notes: The bars show the impact of all discretionary fiscal measures included in the December 2022 BMPE baseline.
Sharp adjustment of ECB policy rates in 2022 with expectations of further rate increases

Sources: Bloomberg, ECB and ECB calculations.

Notes: The terminal rate for the euro area is derived from the euro overnight index swap (OIS) forward curve by capturing the first local peak within a five-year horizon for each observation. Latest observation: 3 February 2023.
Eurosysten balance sheet is expected to decline markedly.

**Targeted longer-term refinancing operations (TLTROs)**

(EUR trillion)

**APP and PEPP portfolio holdings**

(EUR billion)

Source: ECB.

Notes: Blue and yellow bars show holdings under the asset purchase programme (APP) and pandemic emergency purchase programme (PEPP) in book amortized values. SMA responses for the projections.

Substantial increase in euro area long-term sovereign yields with stable bond spreads

Sources: Bloomberg.
Latest observation: 3 February 2023.
Rising mortgage rates herald end of housing boom

Cost of borrowing of households for house purchase
(% per annum)

- Nominal cost of borrowing
- Real cost of borrowing

Households’ intention to buy a house in next 12 months, increase in residential property prices
(lhs: percentages; rhs: annual percentage changes)

Sources: ECB (MIR), Bloomberg, Consensus Economics and ECB calculations.
Notes: The cost of borrowing indicator for households for house purchase is calculated by aggregating short- and long-term rates on new loans for house purchase using a 24-month moving average of new business volumes.
Latest observations: December 2022.

Sources: CES and ECB.
Notes: Share of respondents who intend to buy a house.
Latest observation: December 2022 for Intentions to buy a house and 2022Q3 for Residential property prices.
Thank you very much for your attention!