EUROPEAN CENTRAL BANK

EUROSYSTEM

Inflation in the euro area – past and future

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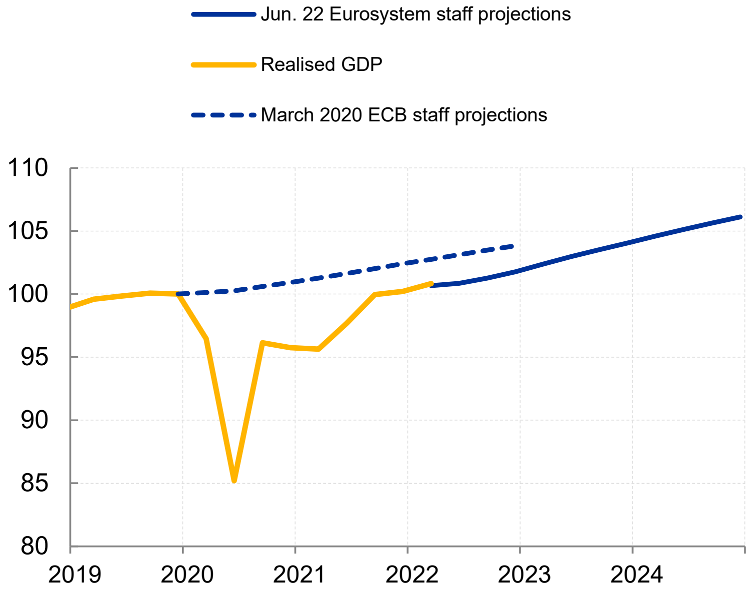
Petersberger Sommerdialog, 2 July 2022

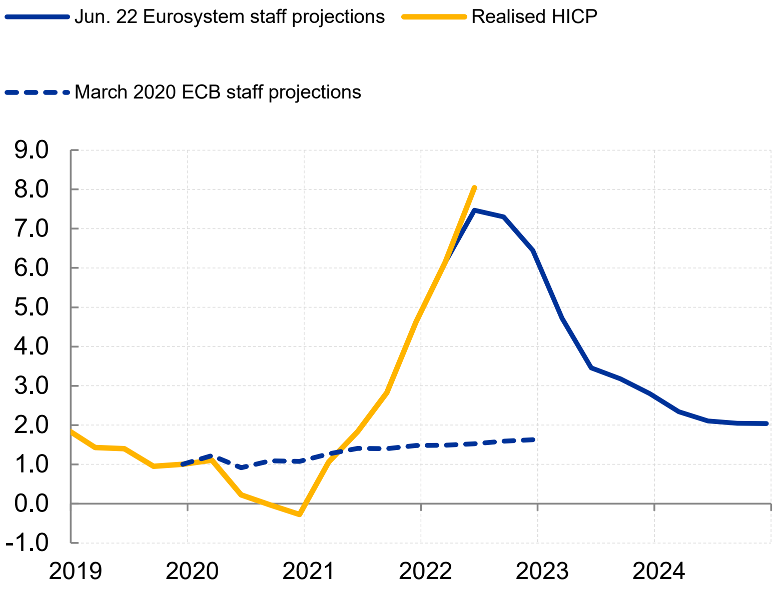
Economic growth and inflation since the start of the pandemic

Real GDP growth
(index: Q4 2019 = 100)



Sources: Eurostat, ECB and Eurosystem.
Latest observation: Q1 2022.

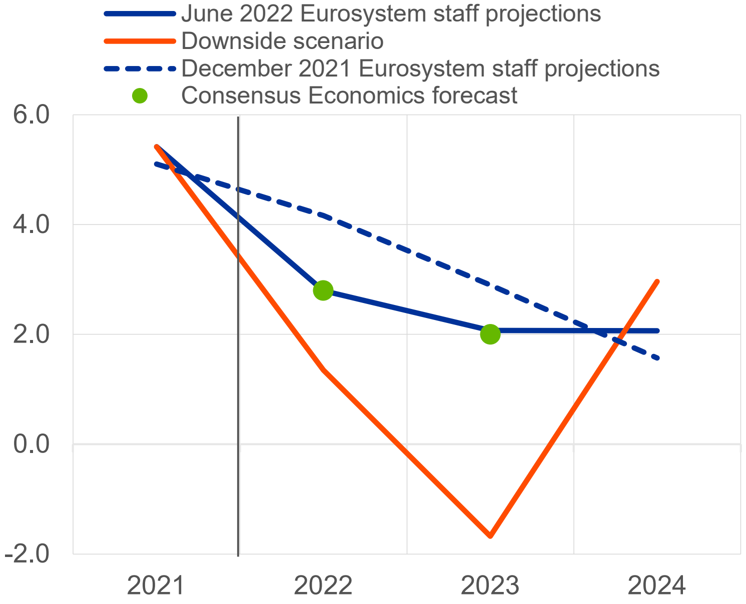
Inflation
(annual percentage changes, quarterly data)



Sources: Eurostat, ECB and Eurosystem.
Latest observation: Q2 2022.

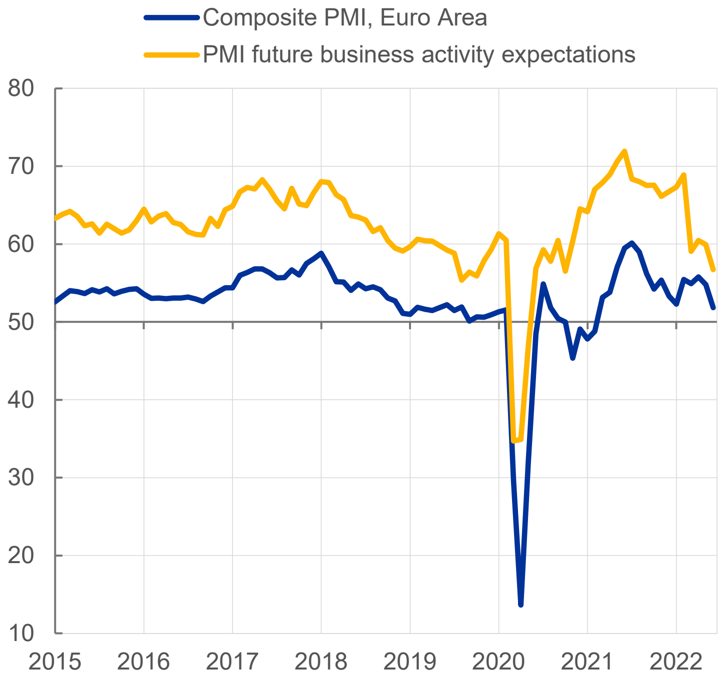
The war is having a marked impact on economic developments

Real GDP growth projections
(annual percentage changes)



Sources: Eurosystem and Consensus Economics.
Note: Consensus Economics forecast: survey 13 June 2022, published 16 June 2022.

Euro area PMIs
(diffusion index)

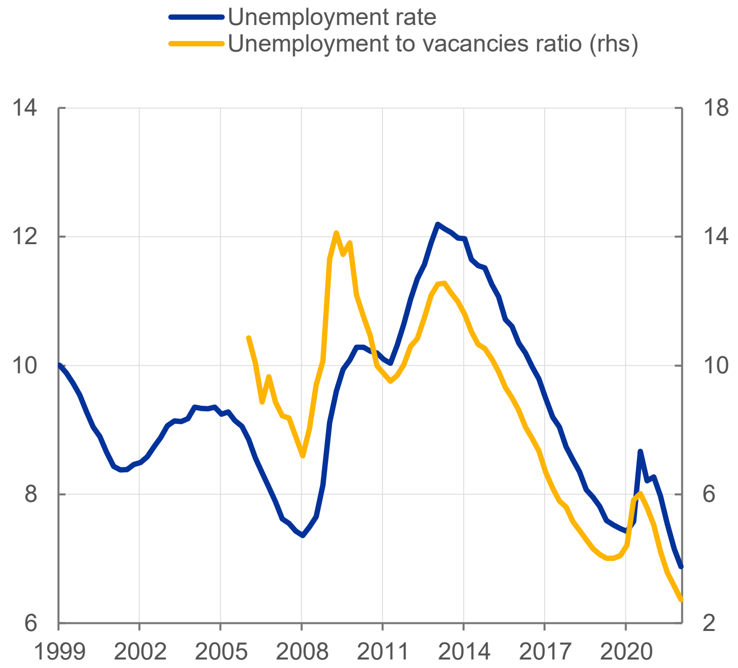


Source: Markit.
Latest observation: June 2022.

Euro area unemployment rate at record low amid an increasingly tight labour market

Unemployment and vacancies

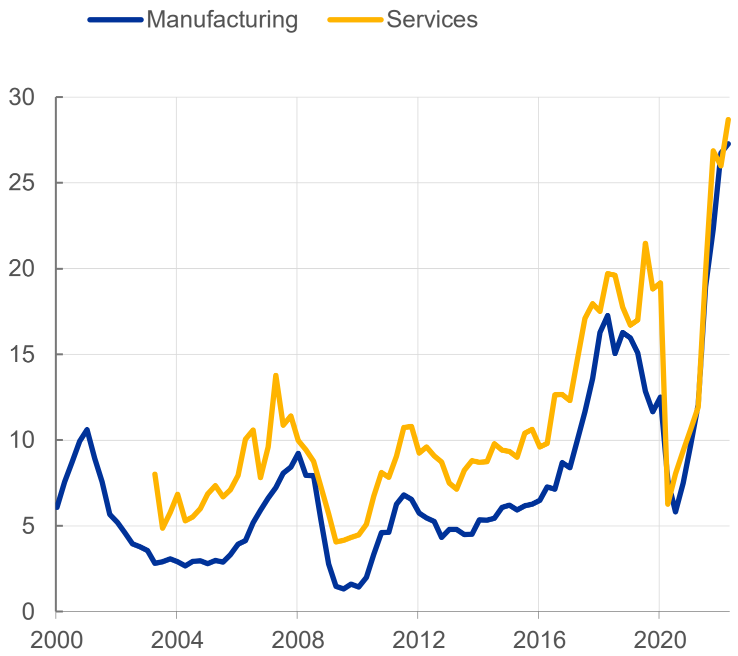
(left-hand scale: percentages; right-hand scale: ratio)



Sources: Eurostat and ECB staff calculations.
Notes: Vacancies data not available for Italy and Estonia. Vacancies data for France only available for firms with more than 10 employees.
Latest observations: Q1 2022.

Limits to production – shortage of labour

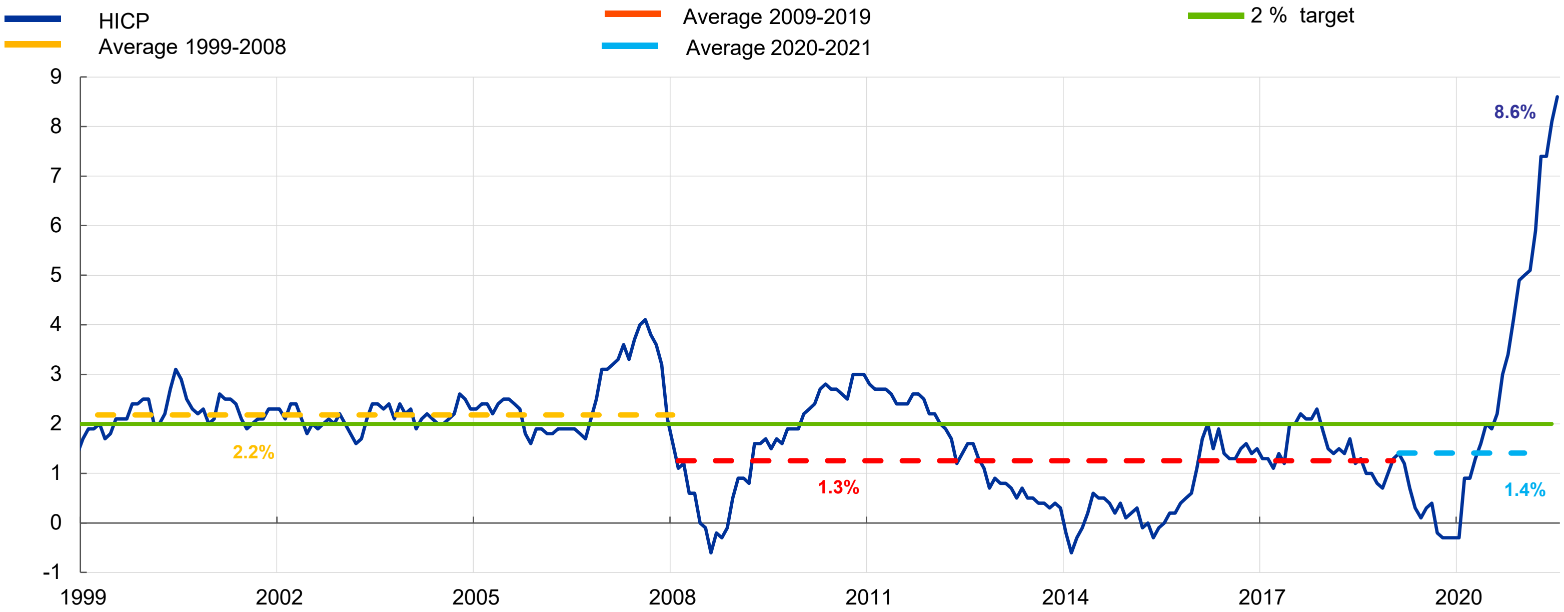
(percentage balances)



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: Q2 2022.

Sharp increase in inflation since mid-2021 after prolonged period of subdued inflation

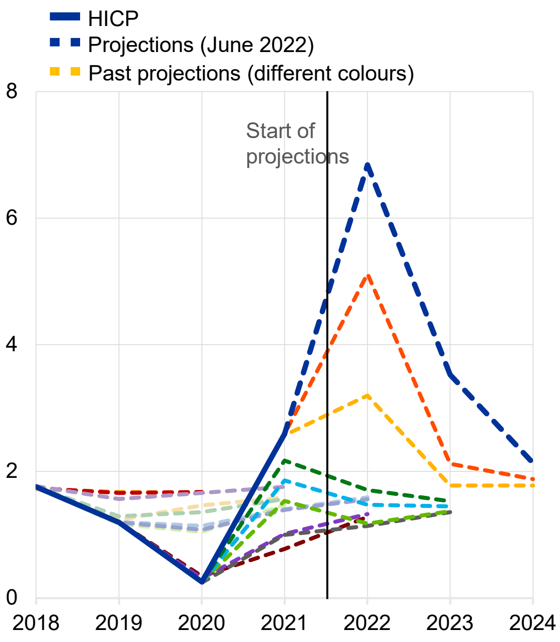
Euro area inflation
(annual percentage changes)



Source: ECB.
Latest observation: June 2022.

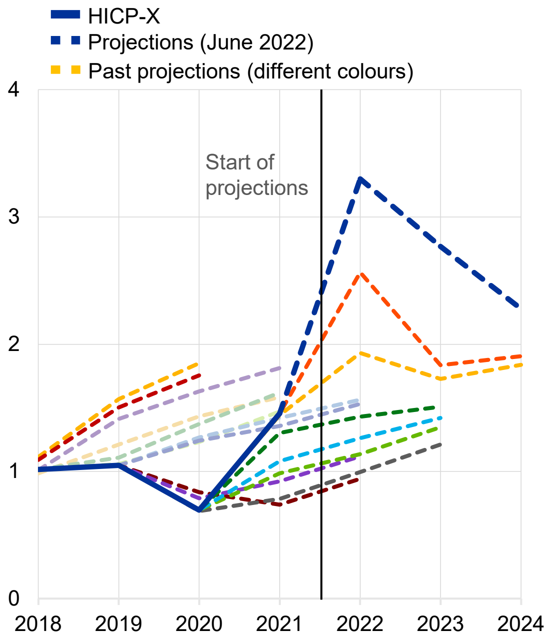
Projections are pointing to a decline in inflation, but history of projection errors

Inflation projections – HICP
(annual percentage changes)

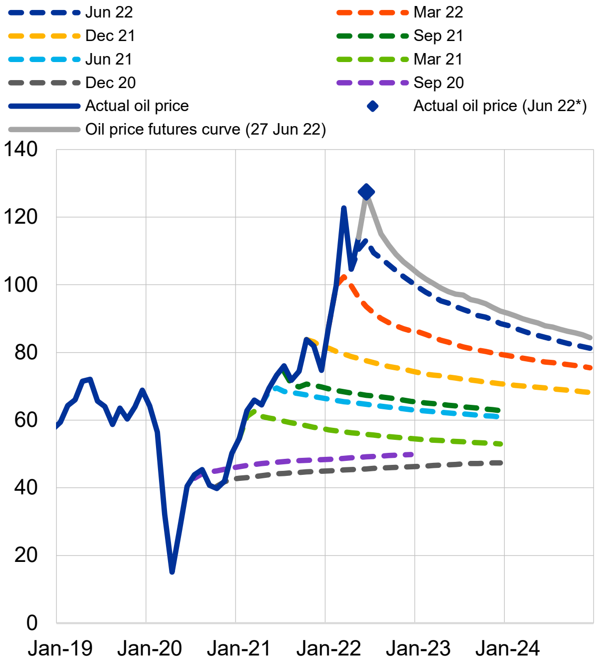


Sources: Eurostat, ECB and Eurosystem.
Latest observation: 2021 for HICP and HICP-X (annual data).

Inflation projections – HICP-X
(annual percentage changes)



Oil prices and assumptions
(USD per barrel)

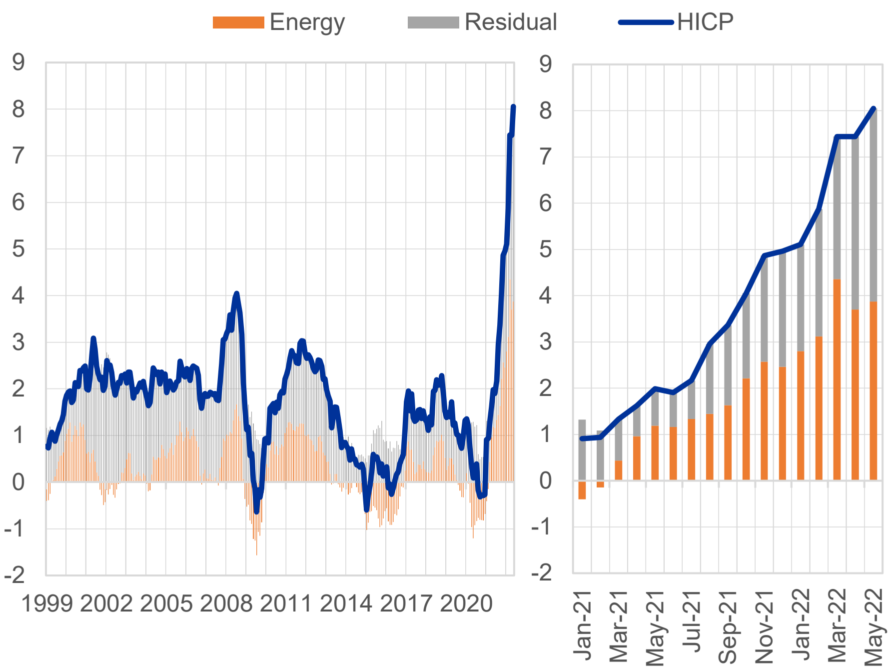


Sources: Refinitiv and ECB.
Notes: Dashed lines refer to oil price assumptions in respective ECB and Eurosystem staff projection exercises. Oil price futures curves are calculated using 10 business day averages. (*) the blue diamond shows the average oil price level in June 2022 (1 to 27 June 2022).
Latest observations: May 2022 for monthly data; 27 June 2022 for June 2022 (blue diamond) and oil price futures (grey line).

Energy is the main contributor to headline inflation in the euro area

Energy contribution to HICP

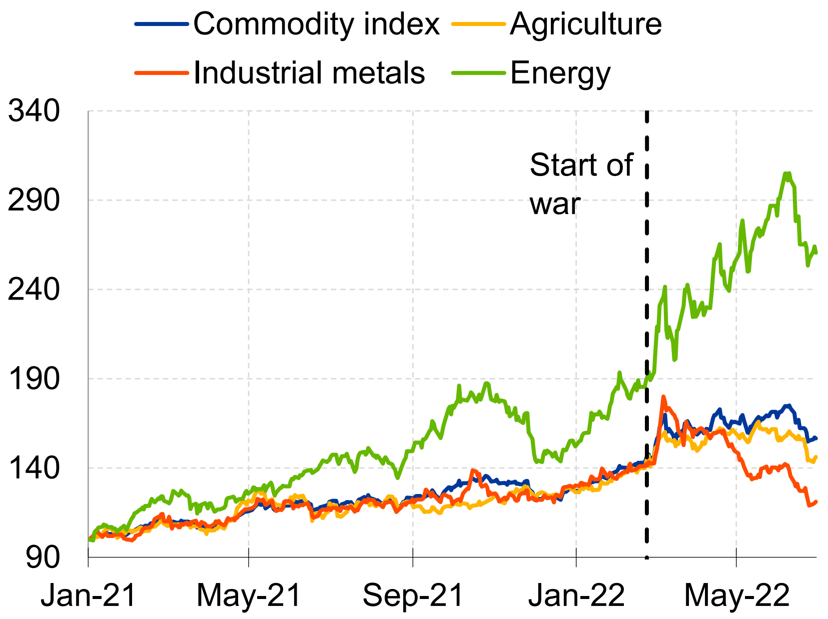
(annual percentage changes; percentage point contributions)



Sources: Eurostat and ECB staff calculations.
Latest observation: May 2022.

Commodity prices

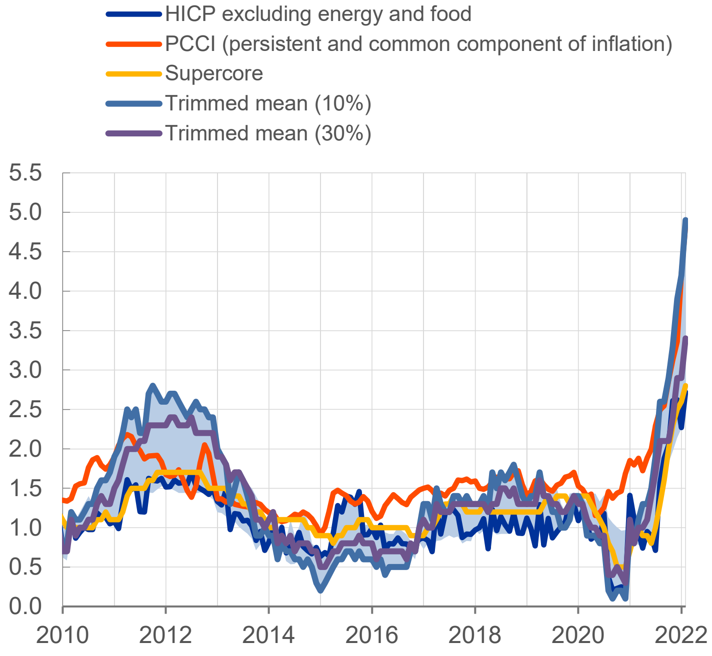
(index: 1 January 2021 = 100)



Sources: Bloomberg and ECB calculations.
Latest observation: 29 June 2022.

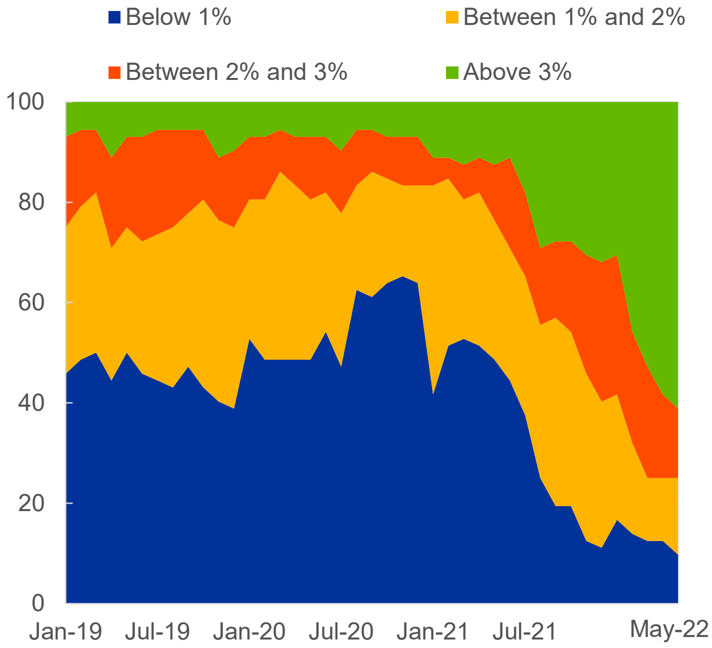
Inflation pressures are becoming increasingly broad-based

Measures of underlying inflation
(annual percentage changes)



Sources: ECB and ECB staff calculations.
Latest observation: May 2022.

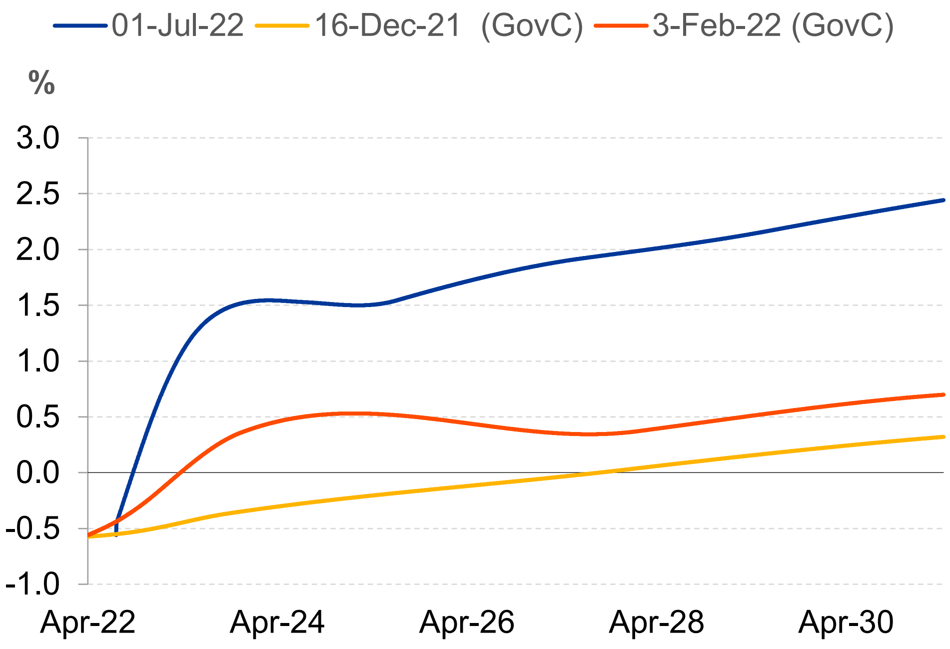
Share of HICP components according to pace of change
(percentage point contributions)



Sources: ECB and ECB staff calculations.
Latest observation: May 2022.

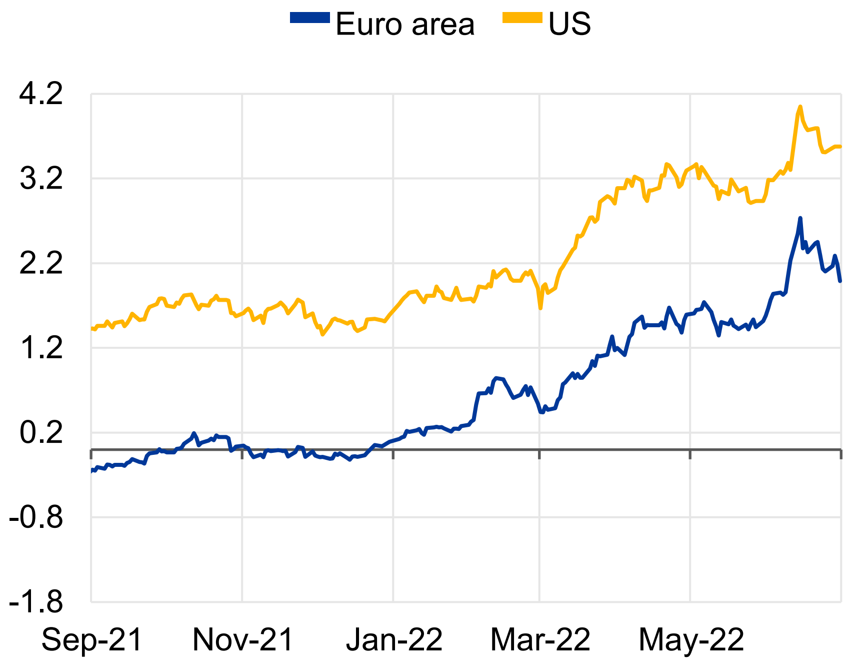
Markets are expecting a steeper policy path in the euro area and a higher terminal rate

EUR OIS forward curve
(percentage per annum)



Sources: Bloomberg and ECB.
Note: "GovC" refers to Governing Council meetings.
Latest observation: 01 July 2022.

Market pricing of terminal rate
(percentage per annum)

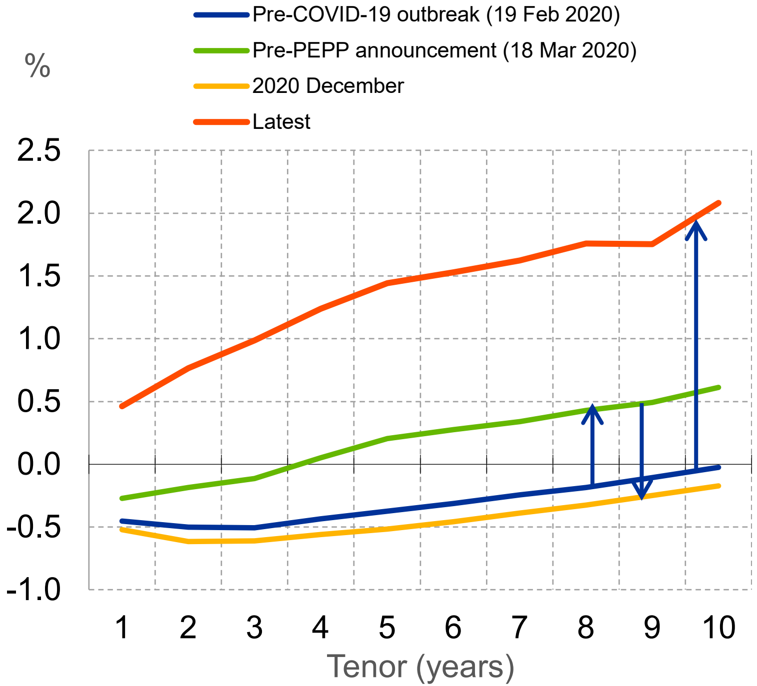


Sources: Morgan Stanley, Bloomberg, ECB and ECB calculations.
Notes: The terminal rate for the euro area is derived from the euro overnight index swap (OIS) forward curve by capturing the first local peak within a five-year horizon for each observation. The terminal rate for the United States is an estimate calculated by Morgan Stanley.
Latest observation: 30 June 2022.

Repricing of rate expectations pushes long-term bond yields higher

Euro area GDP-weighted yield curve

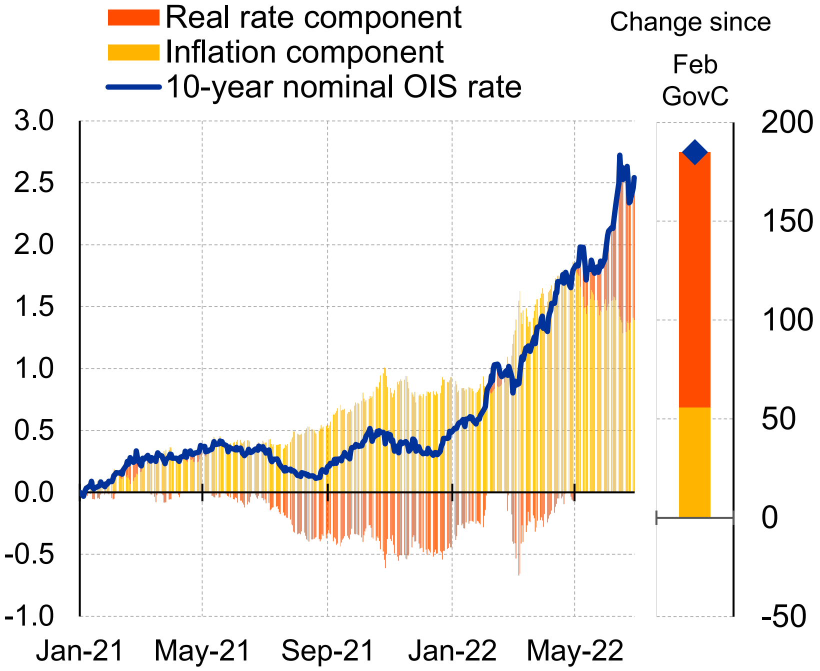
(percentages)



Sources: Bloomberg and ECB.
Latest observation: 30 June 2022.

Decomposition of 10-year OIS into real rate and inflation

(left-hand scale: percentages per annum, cumulative change since 4 January 2021; right-hand scale: basis points)

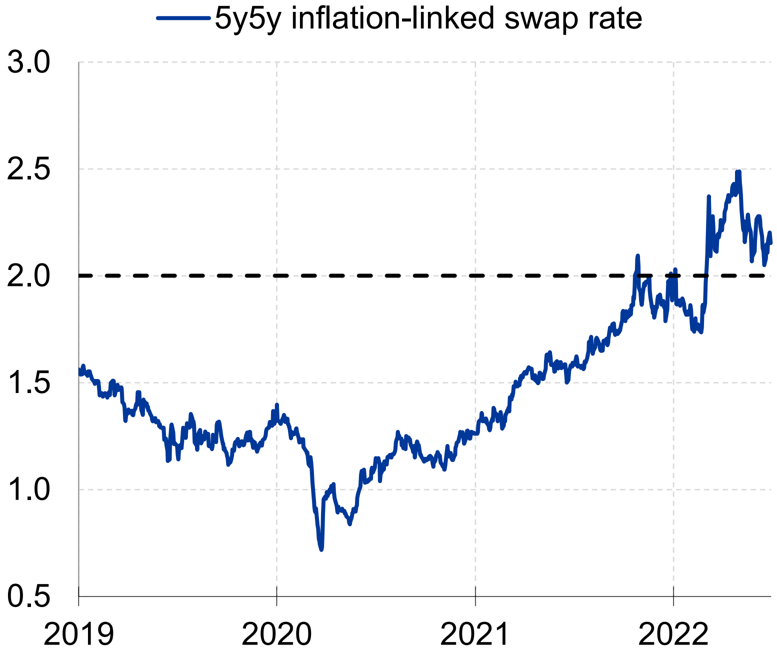


Sources: Bloomberg, Refinitiv and ECB calculations.
Notes: Real rate is defined as the difference between the nominal 10-year OIS rate and 10-year inflation-linked swap rate. “GovC” refers to Governing Council meetings.
Latest observation: 28 June 2022.

Monetary policy has dampened inflation expectations, but remaining risk of de-anchoring

Market-based measures of inflation compensation

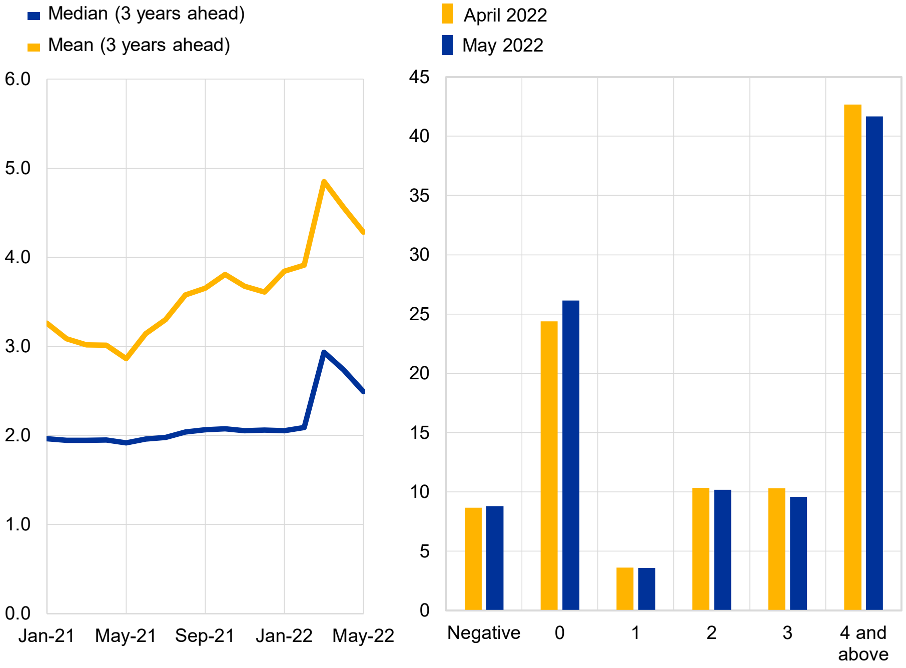
(percentages per annum)



Sources: Bloomberg, Refinitiv and ECB calculations
Notes: The real forward rates are calculated by subtracting the inflation-linked swap forward rates from the nominal OIS forward rates.
Latest observation: 29 June 2022.

Inflation expectations in the ECB Consumer Expectations Survey

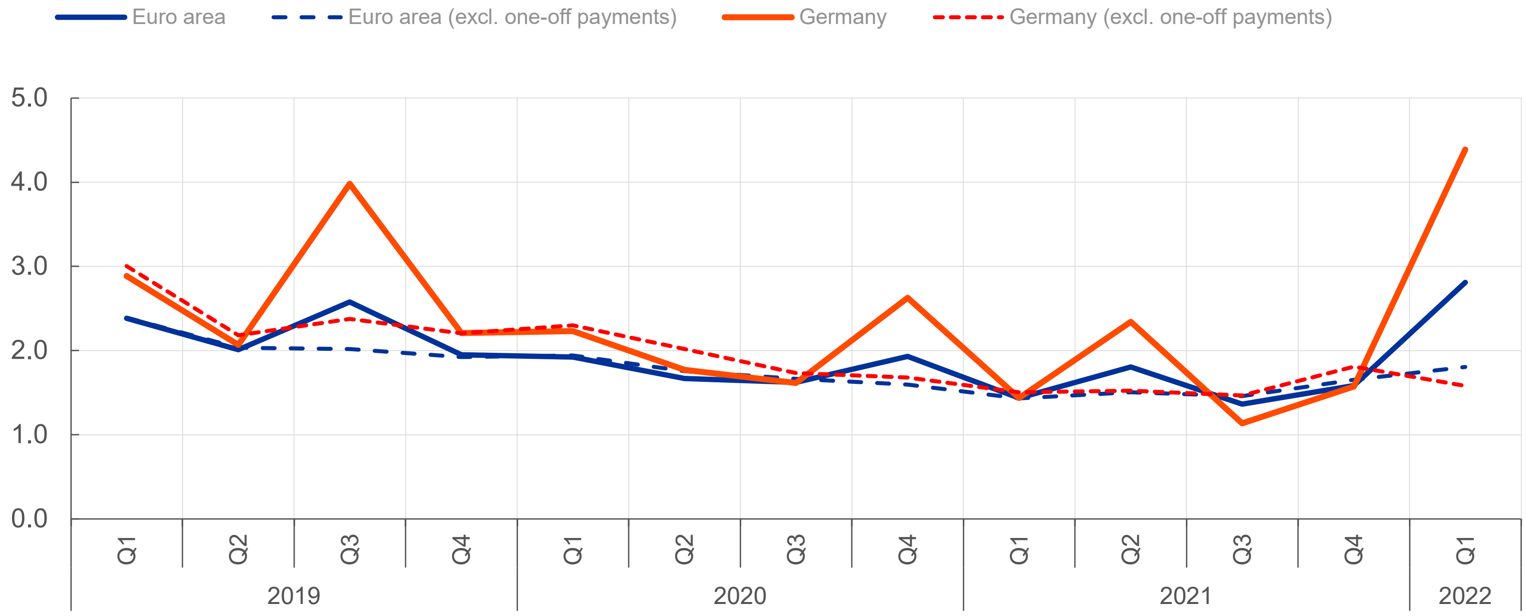
(left panel: annual percentage changes; right panel: x-axis: annual percentage changes; y-axis: percentages of respondents)



Sources: ECB Consumer Expectations Survey and ECB staff calculations.
Notes: “Median” refers to the median across individual respondents. The data are winsorised at the 2nd and 98th percentile. Mean values are 4.9%, 4.6% and 4.3% for March, April and May respectively. Median values are 2.9%, 2.7%and 2.5% for March, April and May respectively.
Latest observations: May 2022.

No signs yet of a wage-price spiral, but risks are increasing

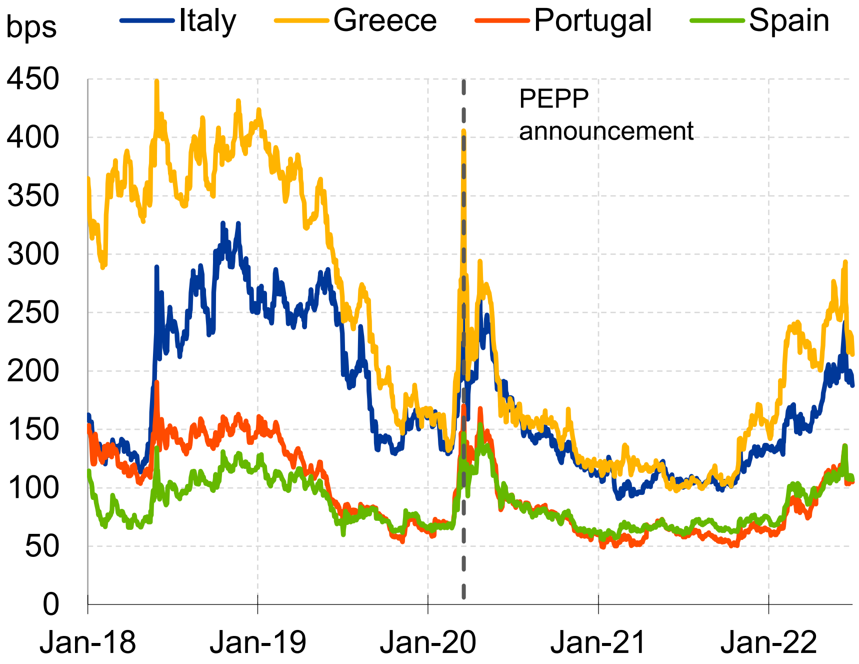
Negotiated wages
(annual percentage changes)



Source: ECB.
Last observation: Q1 2022.

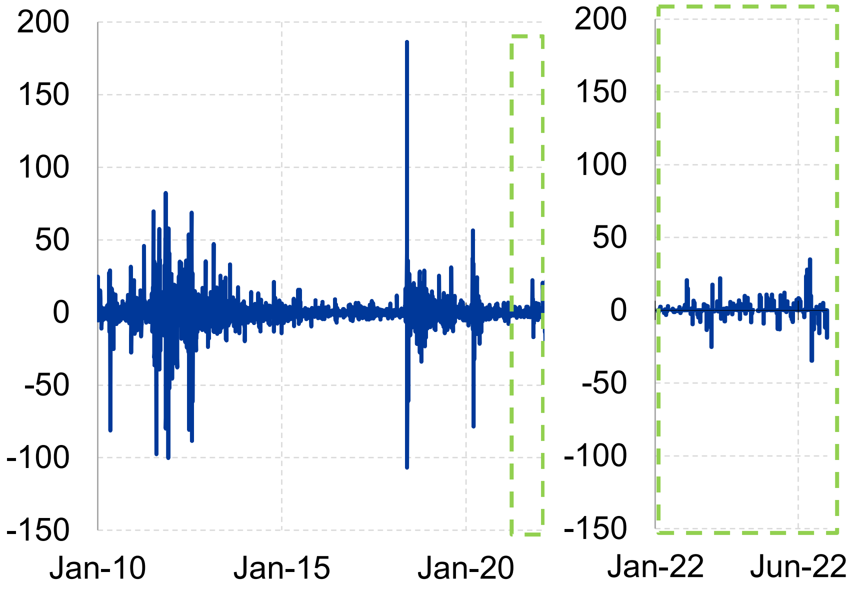
Sovereign spreads are widening – at times at an accelerating speed

Sovereign bond spreads
(basis points)



Source: Bloomberg.
Latest observation: 01 July 2022.

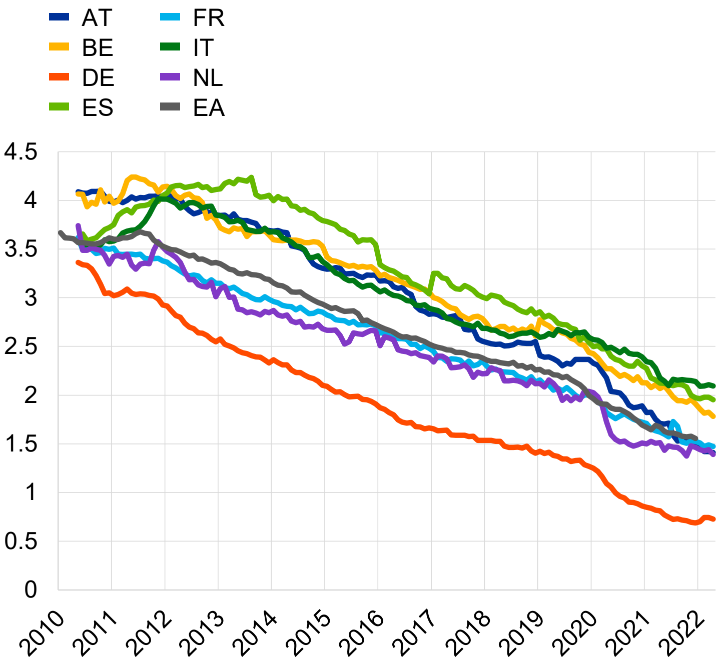
Daily change in two-year Italian sovereign bond yield
(basis points)



Source: Bloomberg.
Latest observation: 01 July 2022.

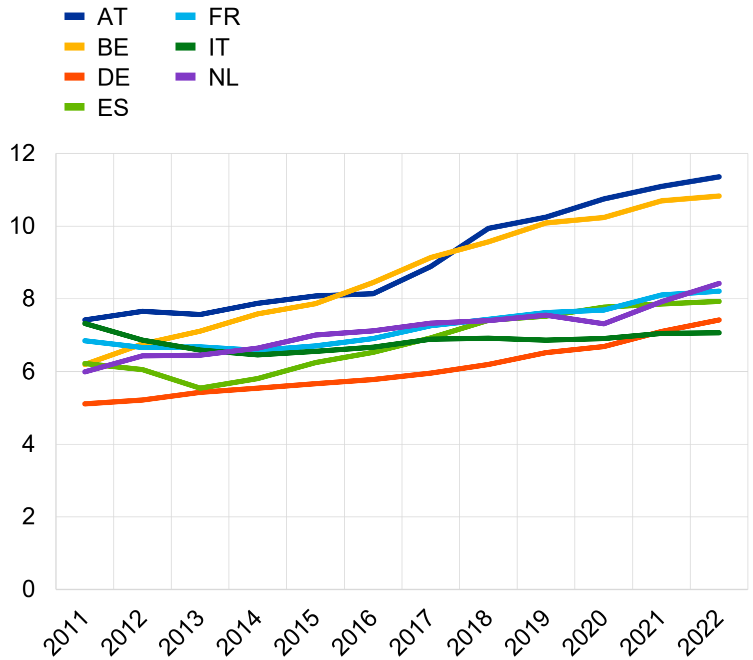
Borrowing costs for euro area sovereigns have declined, while maturities increased

Average nominal sovereign yields on total government debt securities
(percentage points)



Sources: ECB and ECB calculations.
Latest observation: May 2022.

Residual maturities
(years)

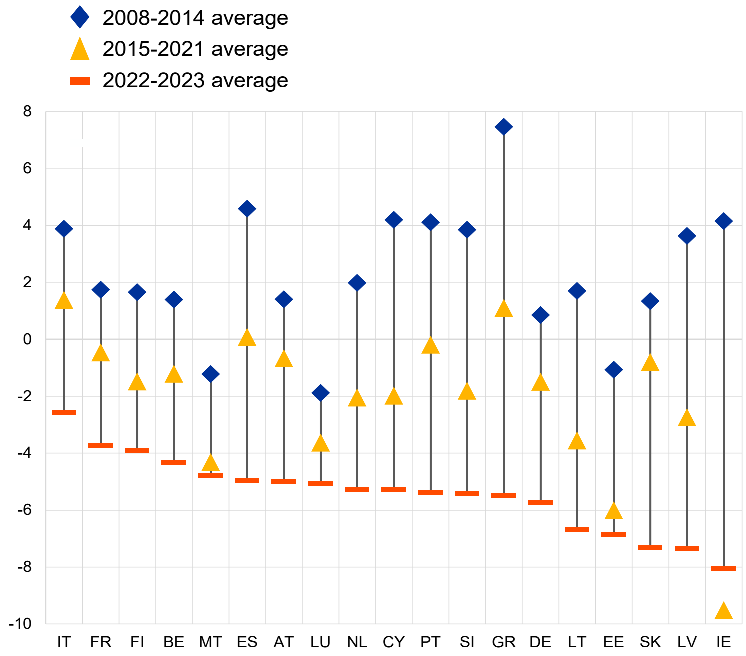


Sources: ECB and ECB calculations.
Notes: All original maturities. Annual averages per year. For 2022, average over the period from January to May.

Due to favourable interest rate-growth differentials public debt ratios are likely to decline

Interest rate-growth differential

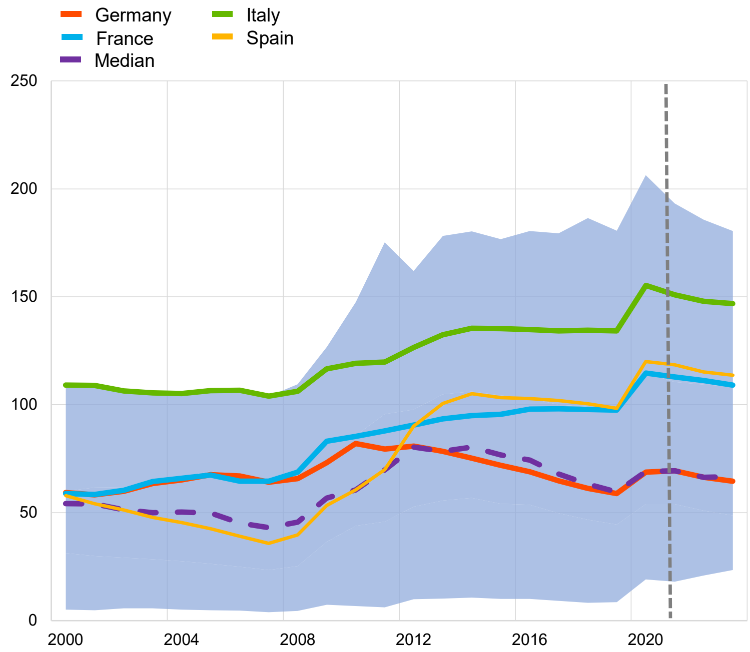
(percentage points, average over period)



Sources: European Commission and ECB calculations.
Notes: The interest rate-growth differential is calculated using the implicit interest rate on government debt and the growth rate of nominal GDP. The implicit interest rate in year t is interest payments by the government in year t divided by government gross debt in t-1. Countries are sorted according to the 2022-2023 average interest rate-growth differential. Figures for 2022 and 2023 refer to the European Commission Spring 2022 Economic Forecast.

Government debt in selected countries

(percentages of GDP)

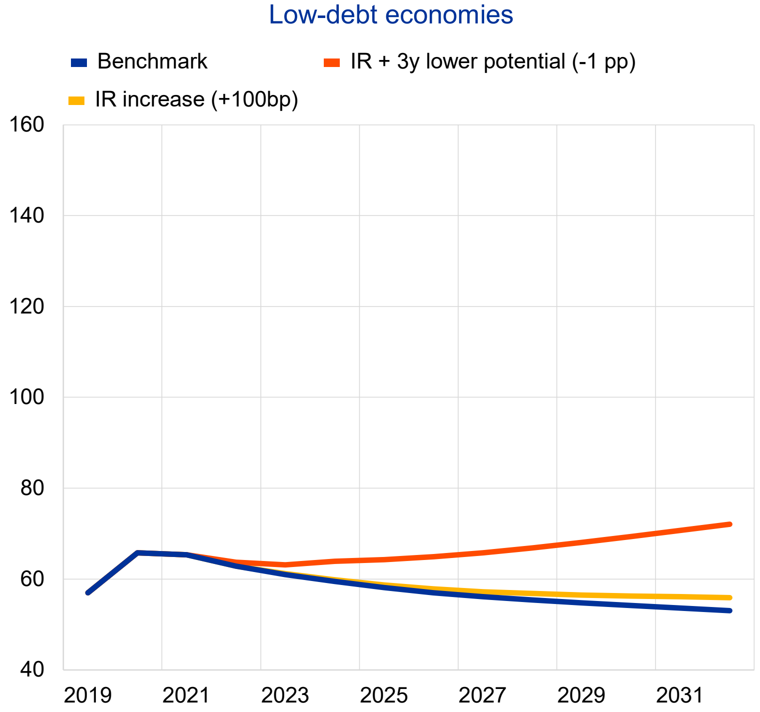


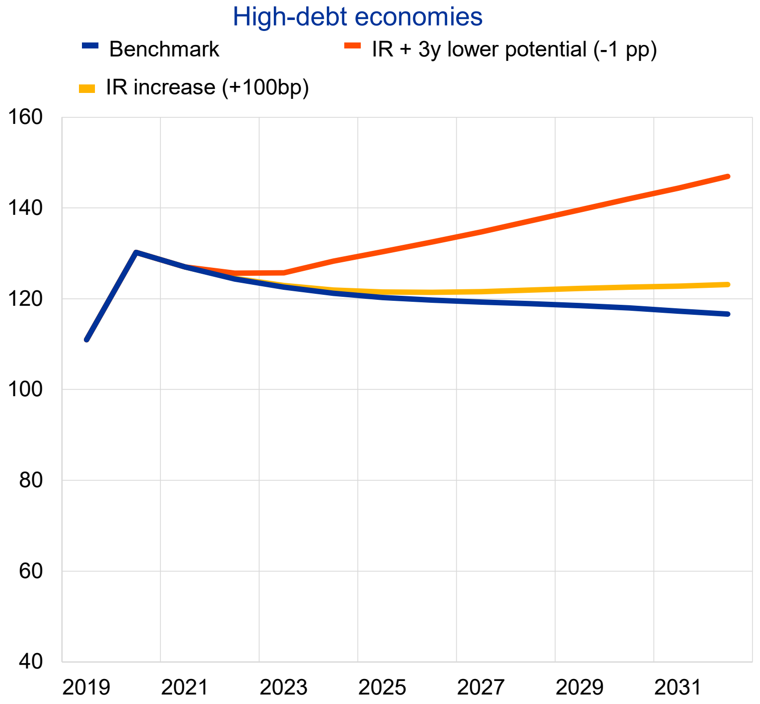
Source: European Commission
Notes: The range shows the min and the max of all euro area countries. Figures for 2022 and 2023 refer to the European Commission Spring 2022 Economic Forecast. Latest observation: 2023.

Potential growth matters more for sovereign finances than interest rates

Impact of an interest rate (IR) and GDP shock on sovereign gross financing needs

(percentages)





Sources: European Commission and ECB calculations.
Notes: High-debt economies are countries with a debt-to-GDP ratio exceeding 90% in 2019. Interest rate shock assumes permanently higher interest rates by 100 basis points (bp) across countries and maturities. Potential growth shock assumes potential growth lower by 1 percentage point (pp) for three years, implying permanently lower potential output levels.

Thank you very much for your attention!