



EUROPEAN CENTRAL BANK

EUROSYSTEM

# Keeping a steady hand in an unsteady world

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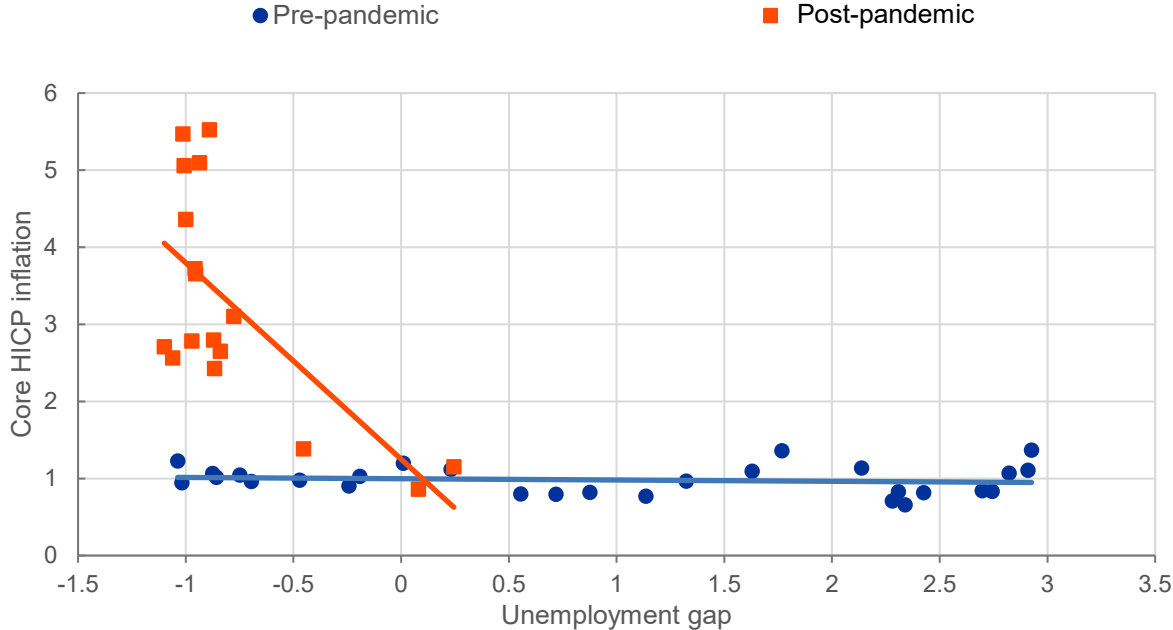
10 May 2025

Isabel Schnabel, Member of the Executive Board of the ECB  
Hoover Monetary Policy Conference, Stanford University



# Steeper Phillips curve improved trade-off facing central banks during the pandemic

## Euro area Phillips curve (annual percentage changes; percentages points)

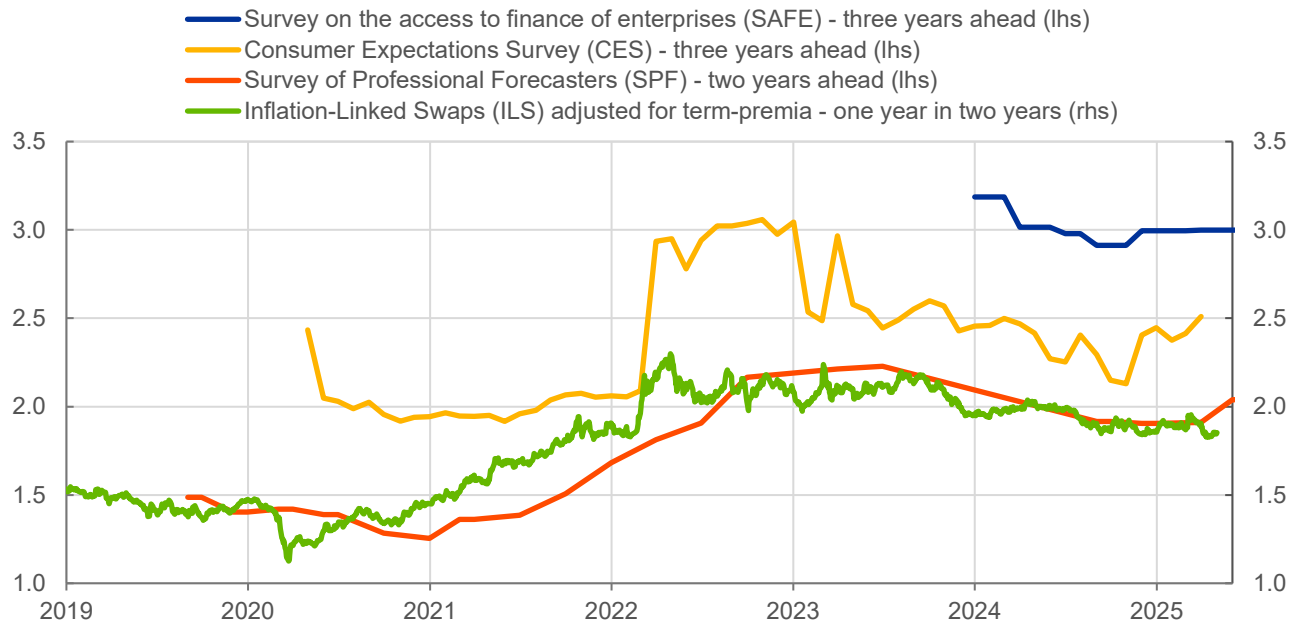


Sources: ECB, European Commission and ECB staff calculations.

Notes: The unemployment gap is calculated by taking the annual value of the European Commission NAWRU estimate for the given year and subtracting it from the observed quarterly unemployment rate. The pre-pandemic period corresponds to Q1 2013 to Q4 2019 and the post-pandemic period to Q1 2021 to Q1 2025. The pandemic period from Q1 2020 to Q4 2020 has been excluded.

Latest observation: Q1 2025.

## Medium-term inflation expectations of consumers, firms, professional forecasters and financial markets (annual percentage changes)

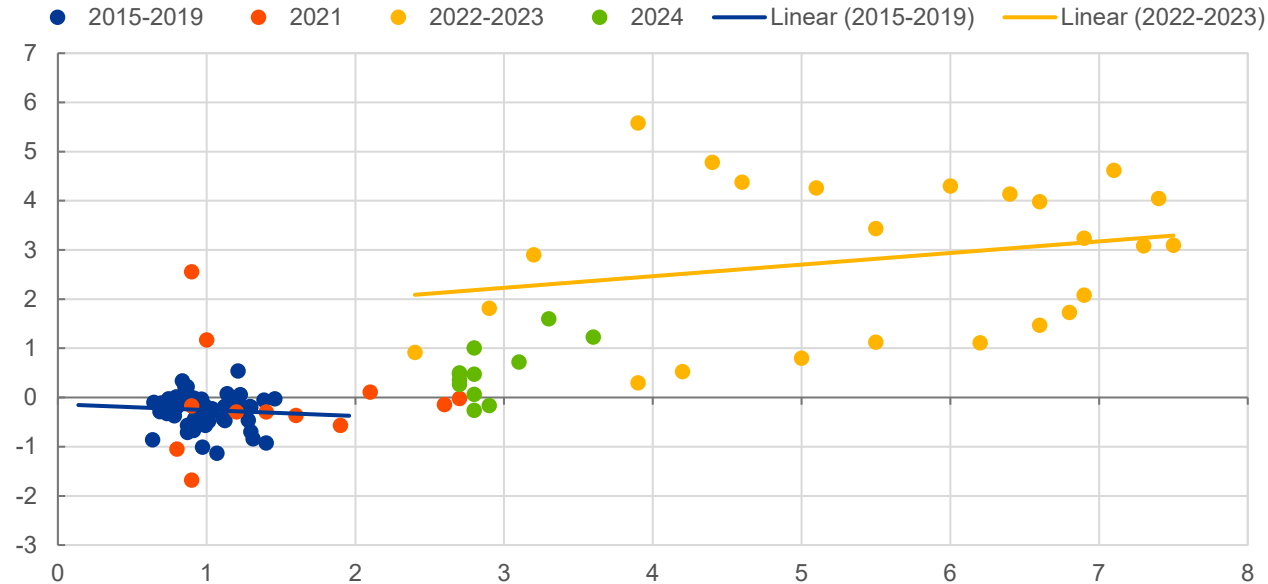


Sources: Survey on the access to finance of enterprises (SAFE), ECB Consumer Expectations Survey (CES), Survey of Professional Forecasters (SPF), Bloomberg, LSEG (market-based inflation expectations) and ECB staff calculations. Notes: SAFE data displays survey-weighted median of firms' expectations for euro area inflation in three years. Quantiles are computed by linear interpolation of the mid-distribution function. The statistics are computed after trimming the data at the country-specific 1st and 99th percentiles. The CES data starts in April 2020 and displays median perceptions/expectations using survey weights. Premia-adjusted forward ILS rates are average estimates from two affine term structure models as in Joslin, Singleton and Zhu (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: Q1 2025 for SAFE (quarterly), Q2 2025 for SPF (quarterly), March 2025 for CES (monthly), and 2 May 2025 for ILS adjusted for term premia (daily).

# Firms raise their prices more frequently in the face of large shocks

## Inflation and frequency of price adjustment

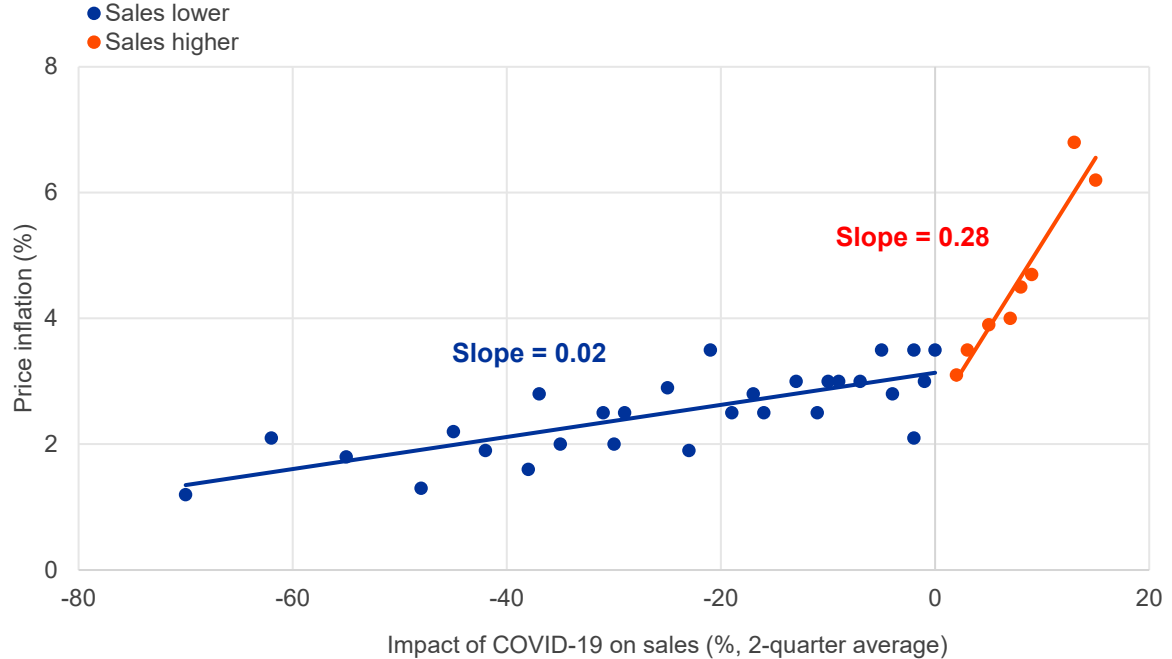
(x-axis: euro area HICP inflation excluding energy and food; year-on-year percentage change;  
y-axis: seasonally adjusted frequency of price adjustment; month-on-month)



Sources: Consumer price micro-datasets from the national statistics institutes of Germany, France, Italy, Spain, Austria, Greece, Estonia, Latvia and Lithuania. Data for 2024 include DE (Hessen) until July 2024, FR, IT, ES, AT, EE, LV until Dec 2024, GR until Dec 2023 and LT until March 2023. Calculations: Gautier et al. (2025), "Consumer Price Stickiness in the Euro Area During an Inflation Surge" mimeo. Notes: Each dot corresponds to the frequency of price adjustment in a month, minus the average frequency of price adjustment in that calendar month over the period 2011-19 on the y-axis and annual HICP inflation excluding energy and food in that month for the euro area on the x-axis. 2020 is excluded, as it was heavily affected by the coronavirus (COVID-19) pandemic. VAT changes in Jan 2024 in Germany (restaurant sector) and EE (main rate) are controlled for in a similar way as other VAT changes over the whole sample. Latest observation: December 2024.

## Realised inflation vs impact of COVID-19 on sales

(Impact of COVID-19 on sales; %, 2 quarter average)



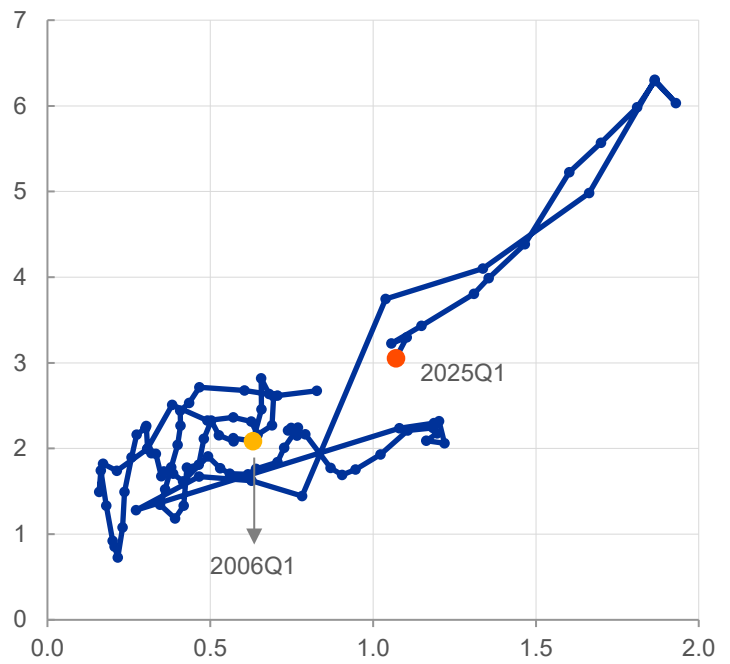
Source: Bunn et al. (2025), "How curvy is the Phillips curve?", Staff Working Paper No. 1,107, Bank of England, January.  
Note: Inflation is own price inflation by firms. Each dot represents 2% of observations (during the pandemic, 2020 Q2 to 2022 Q2), grouped by impact of COVID-19 on sales. Zero responses are excluded. The plot is based on 11,343 observations from 3,694 UK firms in the Decision Maker Panel.

# Tight labour markets may explain non-linear Phillips curve

## Phillips curve

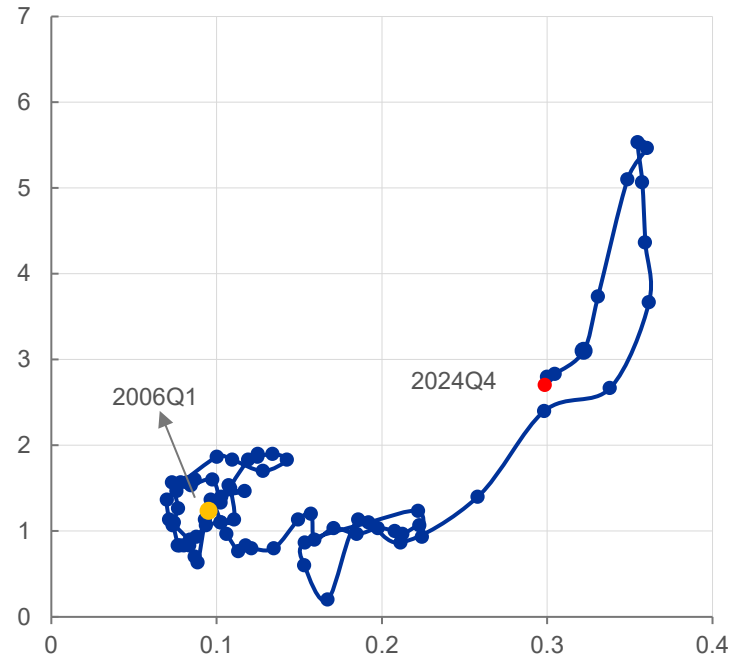
(x-axis: vacancy-to-unemployment ratio, y-axis: y-o-y core inflation)

### United States



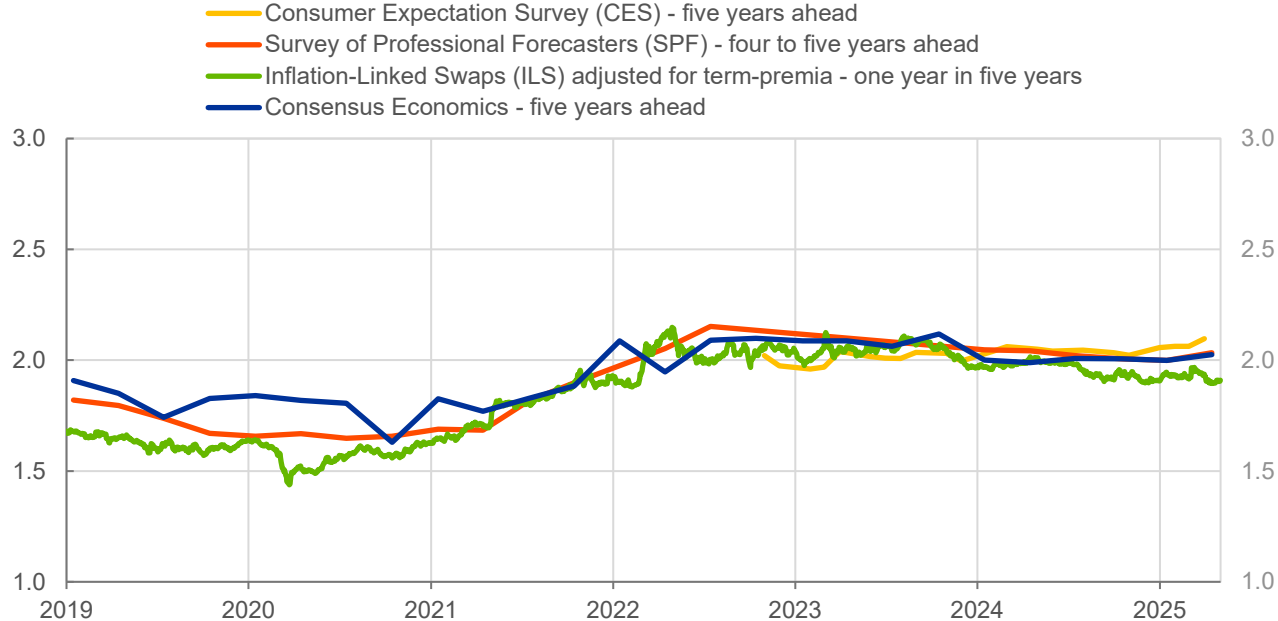
Sources: Haver Analytics and ECB staff calculations.  
Note: CPI-U excluding food and energy is taken as a measure of core inflation. Latest observation: 2025 Q1.

### Euro area



Sources: Haver Analytics, Eurostat and ECB staff calculations.  
Notes: HICP excluding food and energy is taken as a measure of core inflation. Latest observation: 2024 Q4.

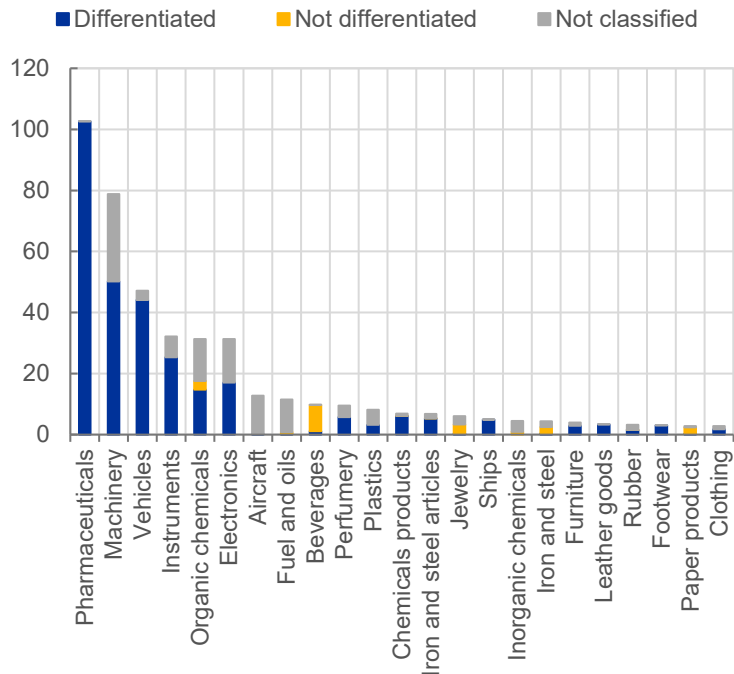
## Long-term inflation expectations of consumers, professional forecasters and financial markets (annual percentage changes)



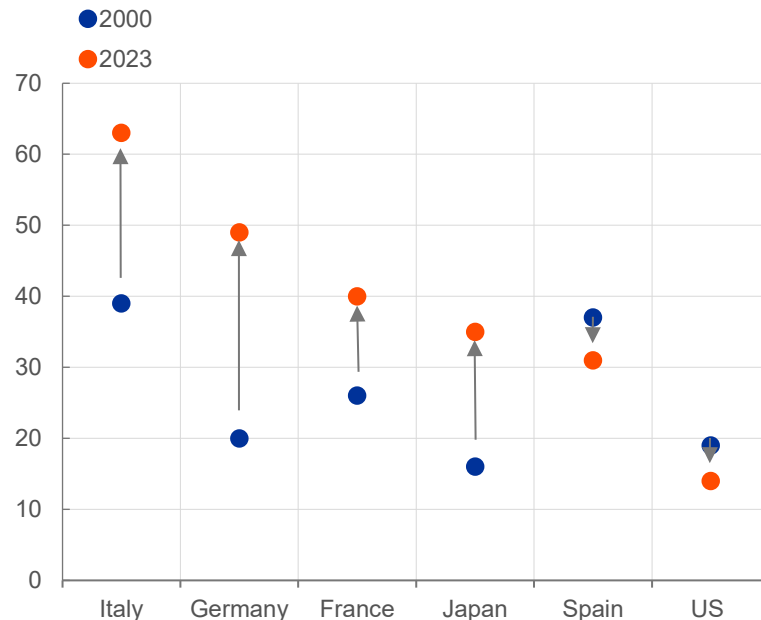
Sources: ECB Consumer Expectations Survey (CES), Survey of Professional Forecasters (SPF), Consensus Economics, Bloomberg, LSEG (Market-based inflation expectations) and ECB staff calculations. Notes: CES data is shown from October 2022 onwards and displays median expectations using survey weights. Premia-adjusted forward ILS rates are average estimates from two affine term structure models as in Joslin, Singleton and Zhu (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: March 2025 for CES (monthly), Q2 2025 for Consensus Economics and SPF (quarterly), and 2 May 2025 for Market-based inflation expectations (daily).

## Euro area exports to the United States

(billion euros)



## Number of product categories with comparative advantage of both China and another country



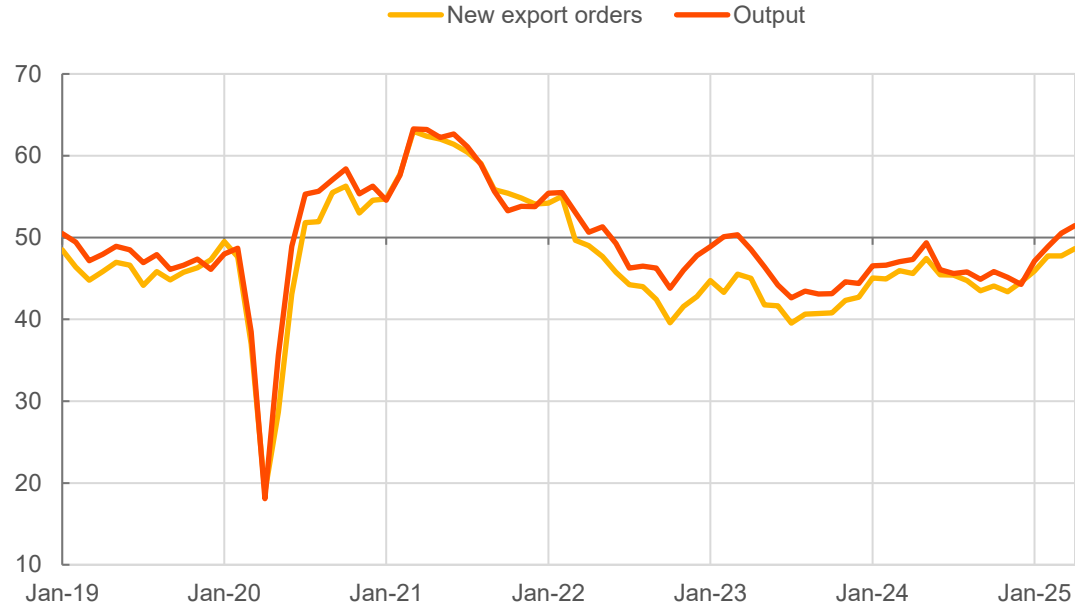
Sources: Trade Data Monitor and ECB staff calculations.

Notes: Data refer to 2024. Sectors refer to HS2-digits classification. Energy goods are excluded. The differentiation classification is taken from Rauch (1999) and Cavallo et al. (2019).

Sources: UNCTAD and ECB staff calculations. Notes: The chart shows the revealed comparative advantage indicator, measuring the ratio between the share of country's exports in a particular product category in its total exports, and the same share for the world as a whole. A country has a comparative advantage if the value of this ratio is above 1. For instance, if Italy and China both specialise in the same specific product category, they are likely to directly compete for exports. Latest observation: 2023.



## Manufacturing PMI (diffusion indices)

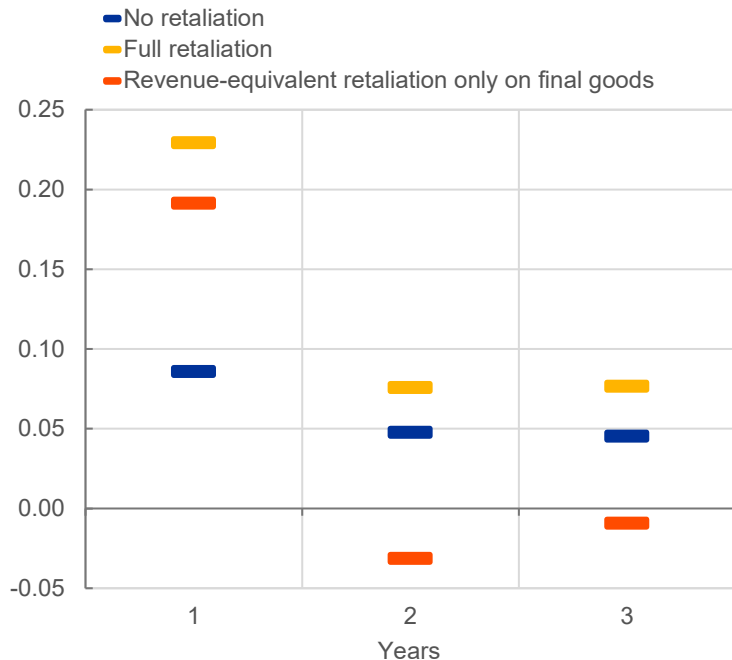


Source: S&P.  
Latest observation: April 2025.

# Tariffs may be inflationary as higher costs propagate through global value chains

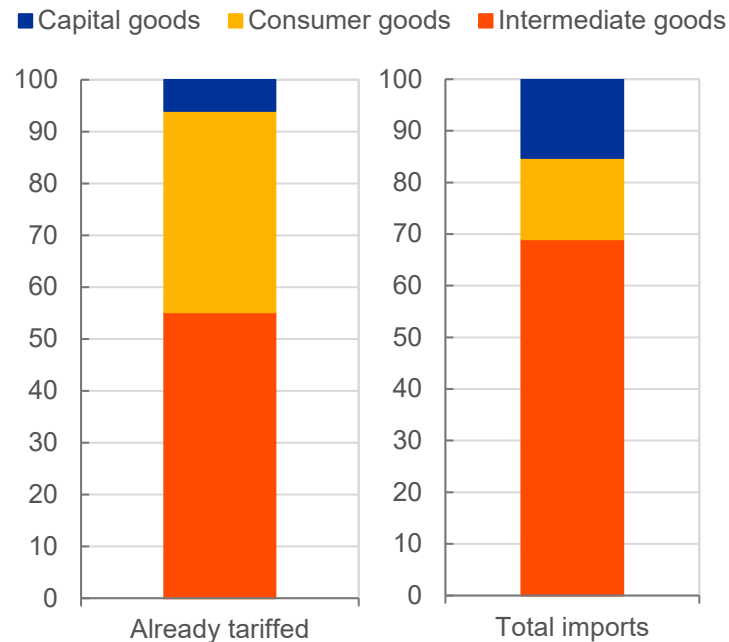
## Impact of trade conflict on euro area CPI inflation

(percent deviation from steady state)



## Euro area imports from the United States

(percentage)



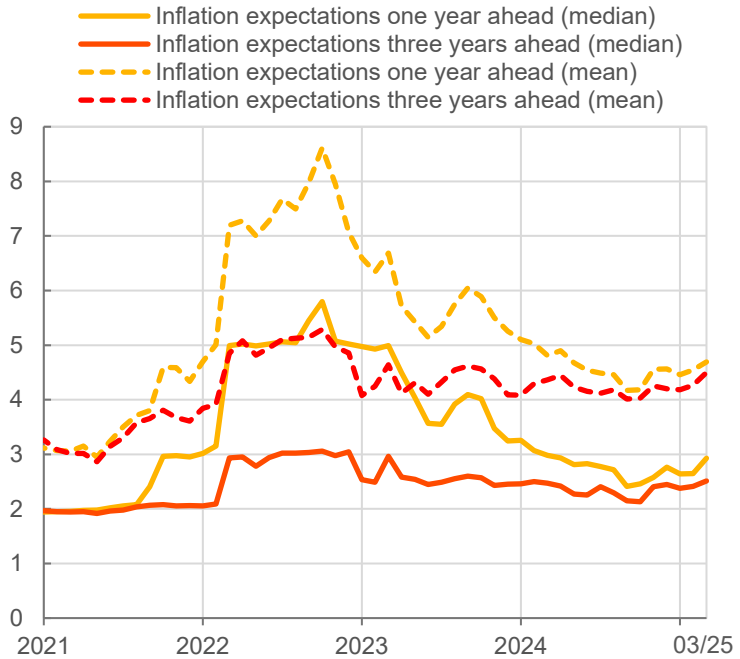
Source: Gnocato et al. (2025), "Tariffs across the supply chain". Notes: Simulations based on a 2-country (EU-RoW) DSGE model with production networks and trade linkages. The impulse responses show the average yearly effects of a persistent 3 p.p. tariff increase on EU exports, which corresponds to a 20 p.p. increase in export tariffs to the US, as the share of total EU exports going to the US is 15%. Three scenarios are considered: 1) no retaliation by the EU; 2) full retaliation by the EU, i.e. a 3 p.p. tariff increase on imported intermediate and final goods; and 3) revenue-equivalent retaliation by the EU only on final goods, i.e. a 5.55 p.p. tariff increase on imported final goods only (which is revenue-equivalent to (2) at the steady state).

Sources: Trade Data Monitor and ECB staff calculations. Notes: The left-hand panel refers to the 2018 retaliatory list combined with the €26 billion list decided by the European Commission in April 2025. Data refers to 2024. Energy goods are excluded.

# Recent increase in short-term inflation expectations requires careful monitoring

## ECB consumer expectations survey

(annual percentage changes)



Sources: ECB Consumer Expectations Survey (CES).  
Latest observation: March 2025.

## Consumers' opinion on price trends

### over next 12 months

(percentage balances)



Source: European Commission.  
Notes: Consumer price expectations for the next 12 months series are seasonally adjusted. Percentage balance equals percent of respondents reporting an increase minus the percent of respondents reporting a decrease.  
Latest observation: April 2025.

# Phillips curves re-flatten as labour demand declines, increasing the sacrifice ratio

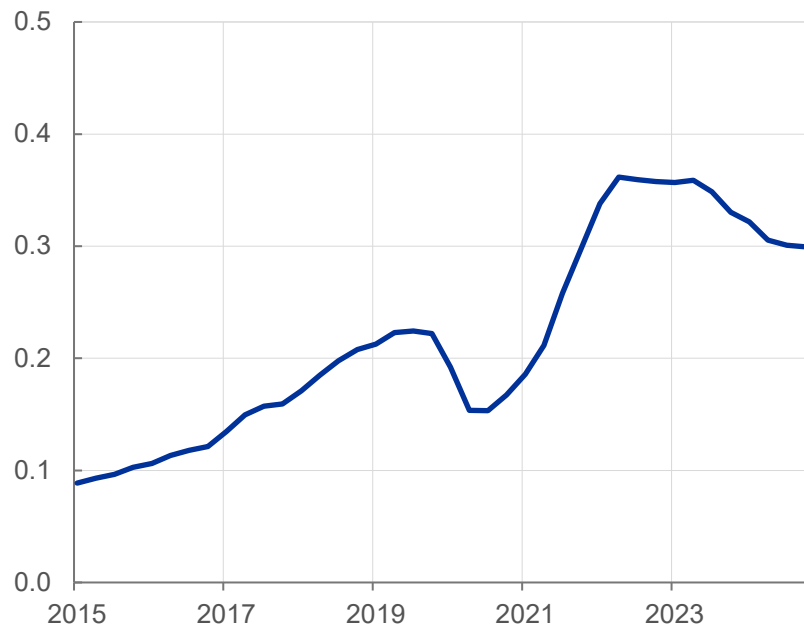
## Vacancy-to-unemployment ratio (% of unemployed)

### United States



Sources: Bureau of Labor Statistics and ECB staff calculations.  
Latest observation: March 2025.

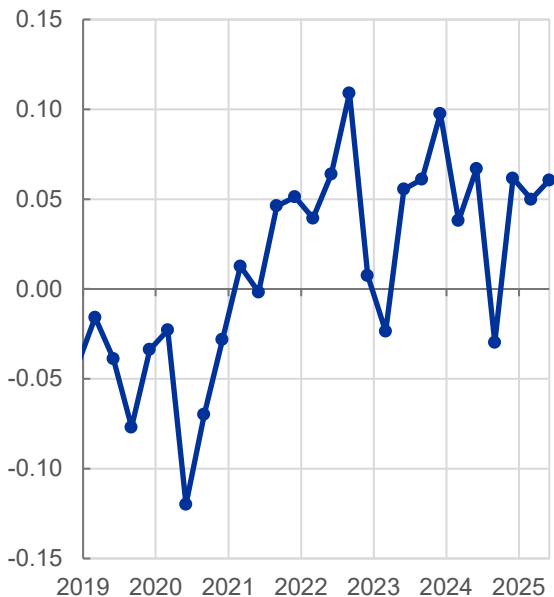
### Euro area



Sources: Haver Analytics, Eurostat and ECB staff calculations.  
Latest observation: 2024 Q4.

# Risks to medium-term inflation remain tilted to the upside

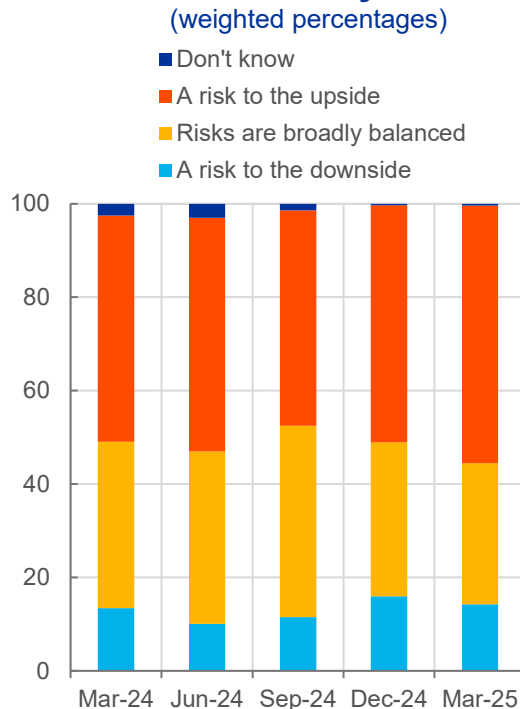
## Professional forecasters: Balance of risk for 2-years-ahead inflation expectations



Sources: SPF and ECB calculations.

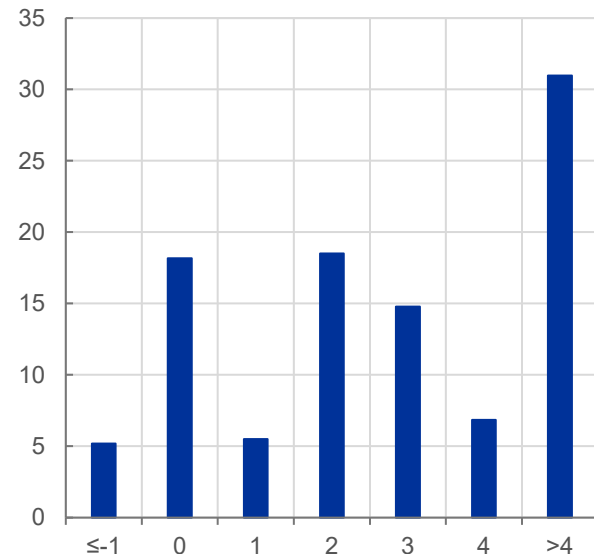
Notes: The balance of risk indicator is calculated as the difference between the estimated mean of the aggregate distribution and the average reported point expectation. Values less than zero imply downside risk, while those above zero signal upside risk. Last observation: Q2 2025

## Firms: Perceived risks for euro area inflation five years ahead (weighted percentages)



Source: SAFE. Base: All firms. Notes: Survey-weighted percentages of firms' subjective inflation outlook over the next five years. The figures refer to rounds 30 to 34 (March 2024 to March 2025) of the survey. The statistics are computed after trimming firms replying to Question 31 on the five-year ahead scenario at the country-specific 1st and 99th percentiles and does not consider firms that answered "don't know" in Question 31 on the five-year ahead scenario. The data included in the chart refer to Question 33 of the survey. Latest observation: Q1 2025.

## Consumers: Distribution of 3-years-ahead inflation expectations (percentages)



Source: ECB Consumer Expectations Survey (CES). Latest observation: March 2025.

**Thank you very much for your attention!**