

# Reflation, not stagflation

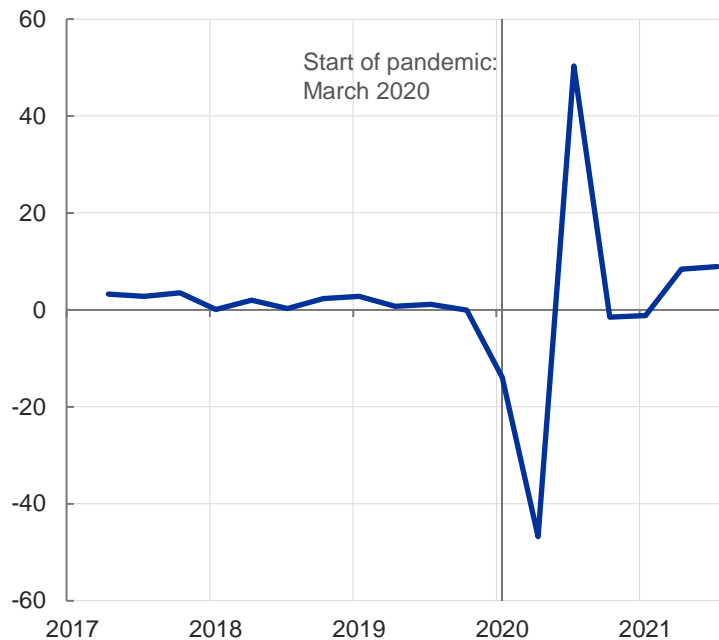
Isabel Schnabel, Member of the ECB's Executive Board

*Opening remarks at a virtual event organised by Goldman Sachs,  
Frankfurt am Main, 17 November 2021*

# Rapid economic growth is accompanied by declining unemployment

## Real euro area GDP growth

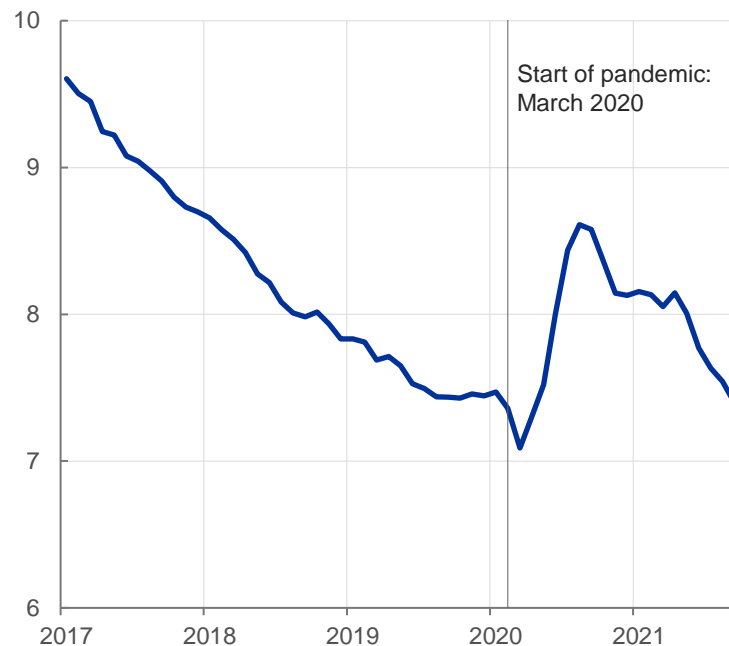
(annualised quarter-on-quarter changes)



Source: Eurostat and ECB staff calculations.  
Latest observation: 2021Q3.

## Euro area unemployment rate

(percentage)

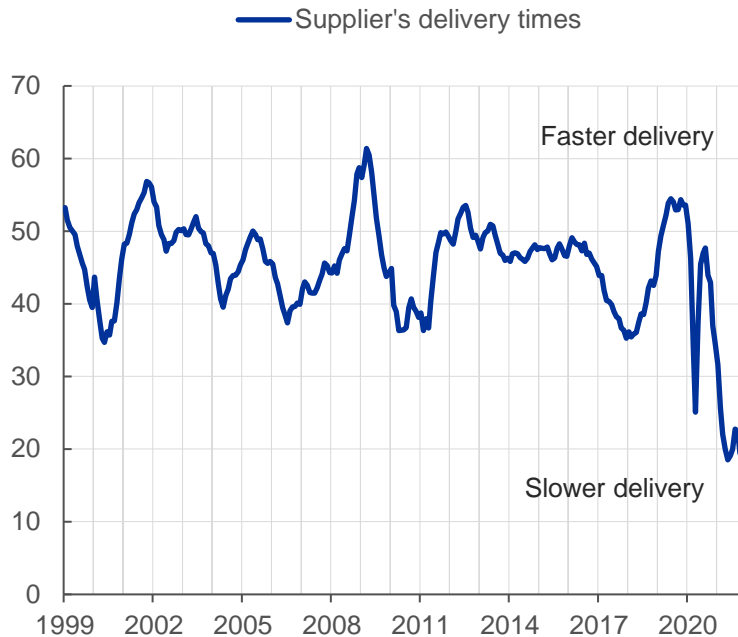


Source: Eurostat.  
Latest observation: September 2021.

# Supply-side disruptions are proving more persistent

## Suppliers' delivery times in manufacturing

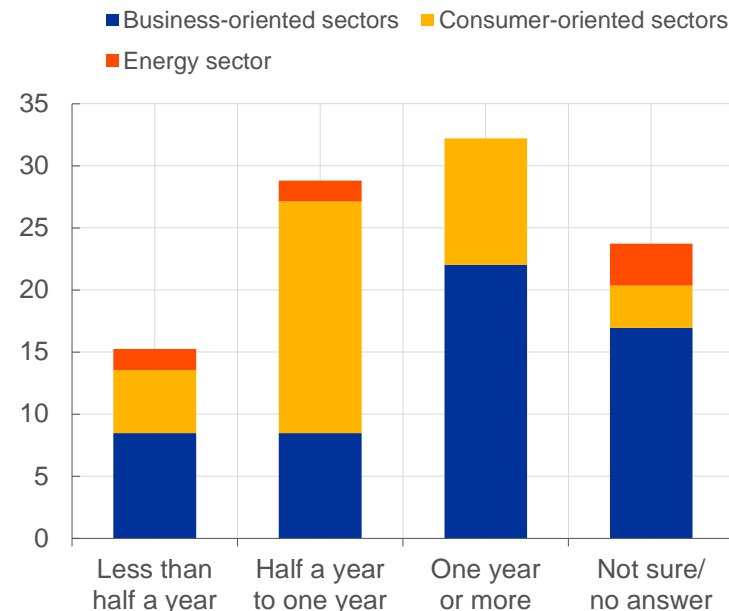
(diffusion index)



Source: Markit.  
Latest observation: October 2021.

## Corporate Telephone Survey: persistence of supply constraints and input price pressures

(percentage of respondents)



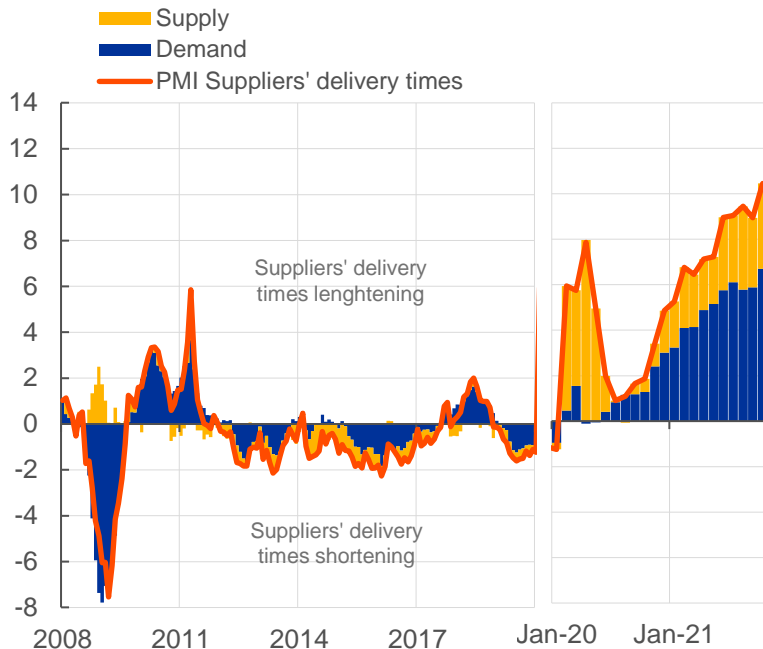
Source: Corporate Telephone Survey (CTS).

Latest observation: The chart presents the ECB staff interpretation of what contacts said about the likely duration of the supply constraints and input price pressures currently faced by their industry, including those related to the scarcity of inputs, transport delays, energy costs and labour shortages. The views are expressed as a percentage of the respondents who said that their firm or industry was experiencing supply constraints and/or input price pressures. Business-oriented sectors comprise intermediate and capital goods, construction, transport and business services. Consumer-oriented sectors comprise consumer goods (including food), retail and consumer services.

# Supply-side constraints are mainly driven by strong demand

## PMI global suppliers' delivery times: model decomposition

(points; increase denotes rising delivery times)

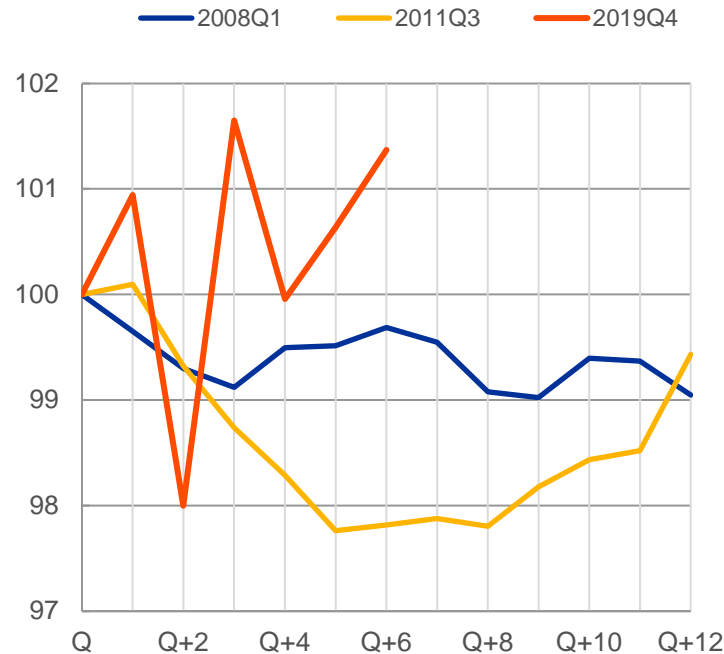


Source: ECB staff calculations.

Note: PMI suppliers' delivery time historical decomposition obtained with a two variable Bayesian VAR with PMI output and PMI suppliers' delivery times, identified through sign restrictions. Last observation: October 2021.

## Developments in euro area real disposable income after economic recessions

(2008Q3, 2011Q3 and 2019Q4 = 100)



Source: Eurostat and ECB calculations.

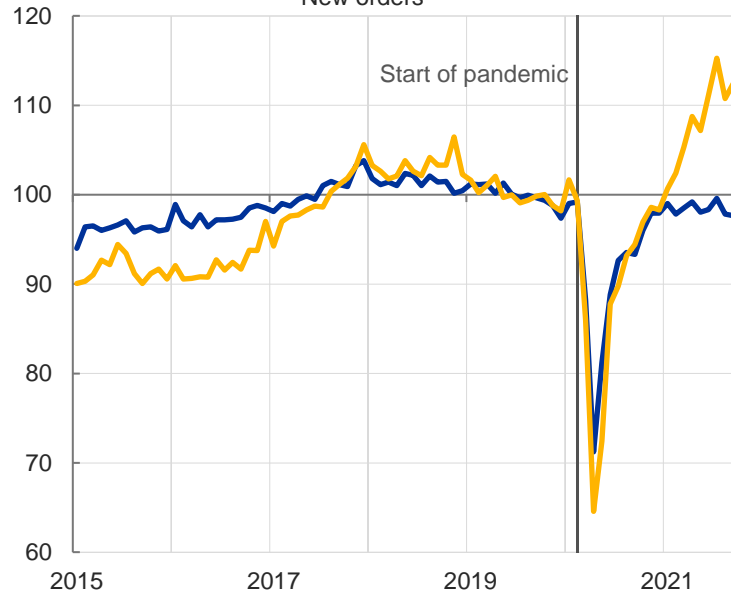
Note: Starting points correspond to the business cycle peaks identified by the CEPR business cycle dating committee. Nominal disposable income is deflated with the consumption deflator. Latest observation: 2021Q2.

# Expected capacity utilisation close to record high level

## Euro area industrial production and new orders

(index; 2019 = 100)

— Industrial production  
— New orders



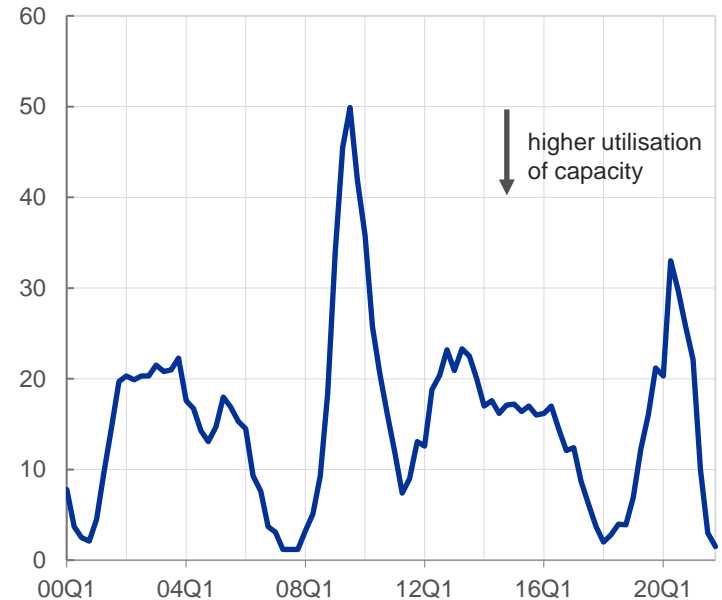
Source: Eurostat and ECB staff calculations.

Notes: The vertical line shows the COVID-19 outbreak in the euro area (February 2020).  
Latest observation: September 2021.

## Euro area: expected capacity constraints in industry

(percent balance)

— Expected capacity constraints



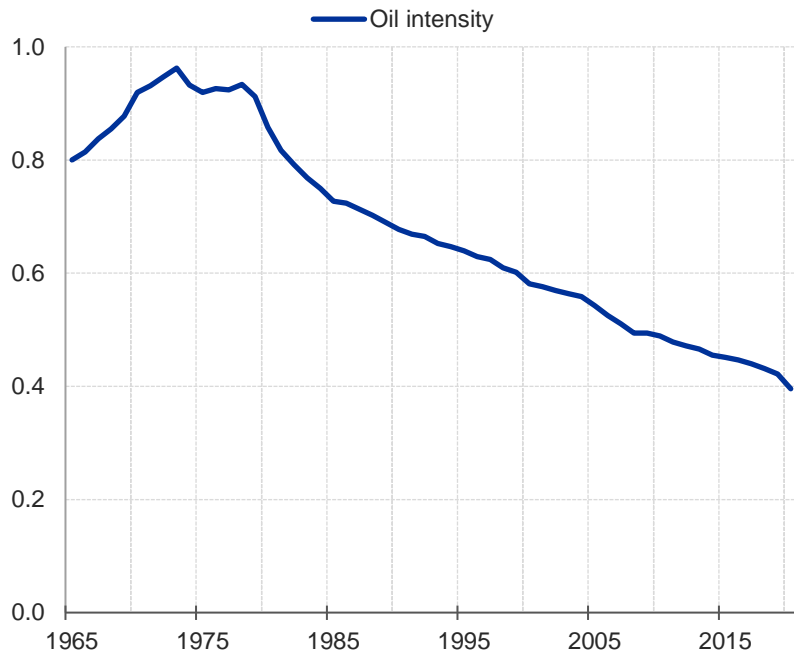
Source: ECFIN and ECB staff calculations.

Notes: Negative balances (capacity less than sufficient) indicate high levels of capacity utilisation.  
Latest observation: 2021Q4.

# Economy has become less vulnerable to rising oil prices

## Oil intensity

(number of barrels per 1,000 USD of GDP)



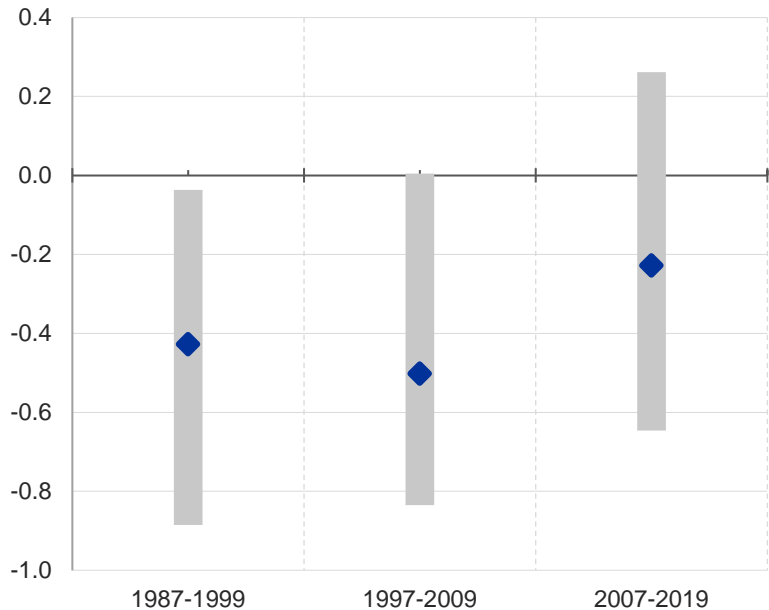
Source: Bloomberg and ECB staff calculations.

Notes: Oil intensity defined as oil demand relative to GDP (barrel per 1000 USD of GDP in 2010 prices).

Latest observation: 2020.

## Response of global industrial production to oil supply shocks

(impulse responses to shock after 48 months; median and 15<sup>th</sup> and 85<sup>th</sup> percentiles, percentage points)



Sources: IEA, FRED and CB staff calculations.

Notes: The response is estimated using a SVAR with sign restrictions. The oil supply shock is identified assuming that it lowers oil production and industrial production but raises the price of oil. The responses are calibrated to a 10 percent shock to the price of oil.

Latest observation: 2020.

# Consumer confidence and a further reopening of economy will support demand

## European Commission consumer survey

(percentage balances)

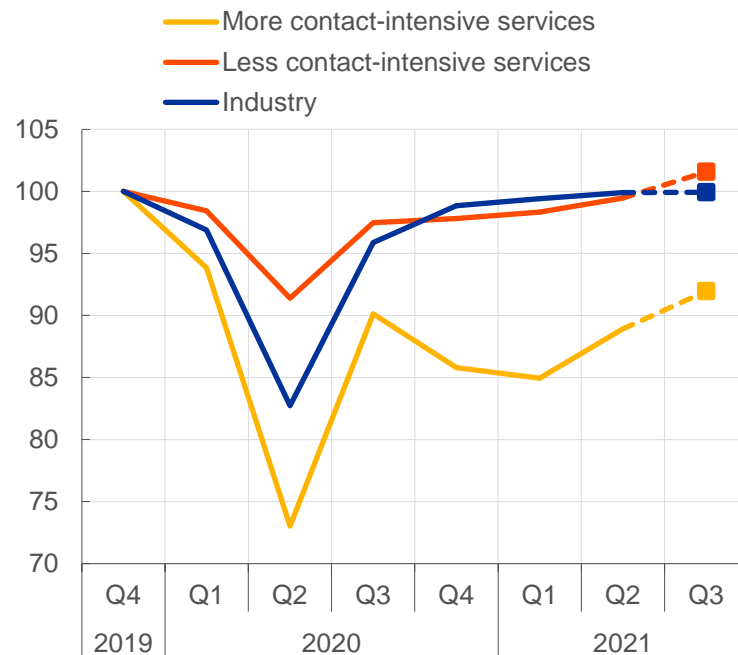


Source: EC consumer survey.  
Latest observation: October 2021.

## Services sector developments:

### value added by sector

(Q4 2019 = 100)

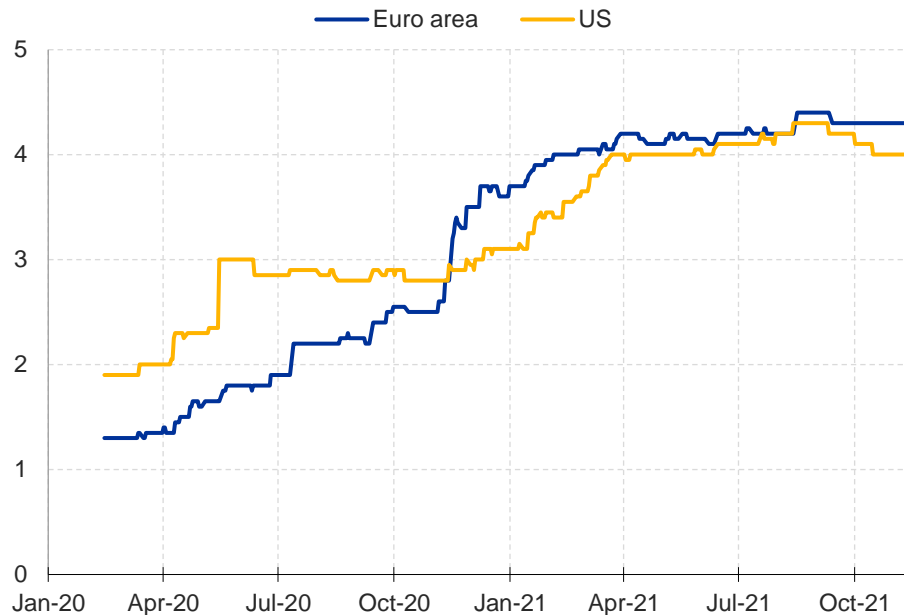


Source: ECB calculations using Eurostat and ECFIN data.

Notes: Data for the third quarter of 2021 are based on quarterly data for value added in (1) manufacturing and other industry (referred to as "manufacturing" in the text), (2) construction and (3) other sectors. These data are imputed from available monthly data up to September for (1) industrial production excluding construction, (2) construction production and (3) residual with respect to real GDP according to the flash release.

# Growth forecasts were revised down only moderately, especially in the euro area

## Consensus 2022 real GDP growth expectations (annual percentage change)



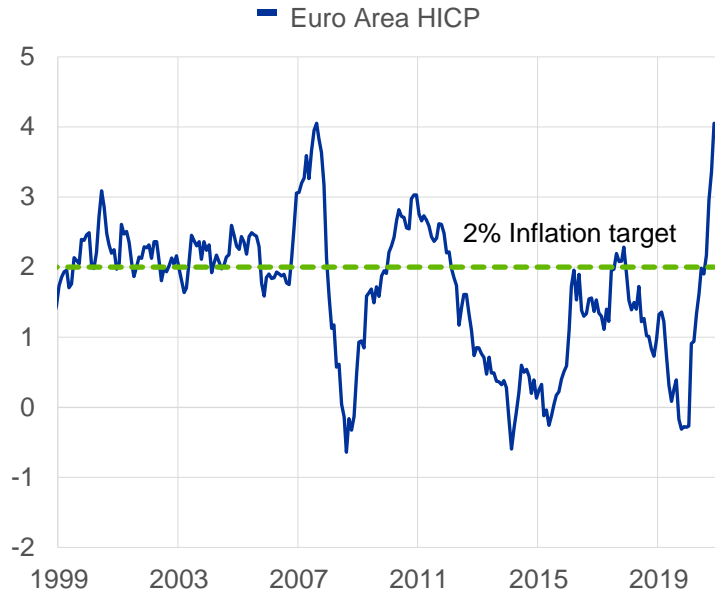
Source: Bloomberg.  
Latest observation: 15 November 2021.



# Rising inflation is driven to a large extent by higher energy prices

## Euro area HICP inflation

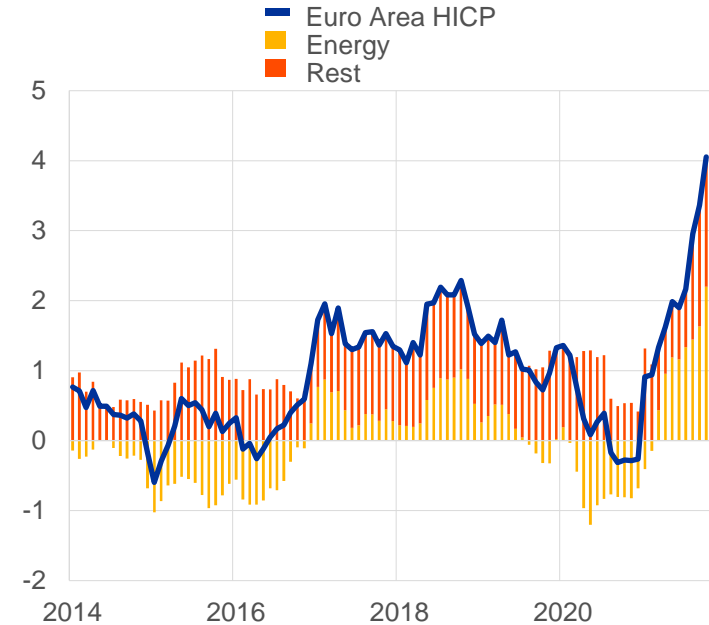
(annual percentage changes)



Source: Eurostat.  
Latest observation: October 2021.

## Contribution of energy to euro area HICP inflation

(annual percentage changes, percentage point contributions)

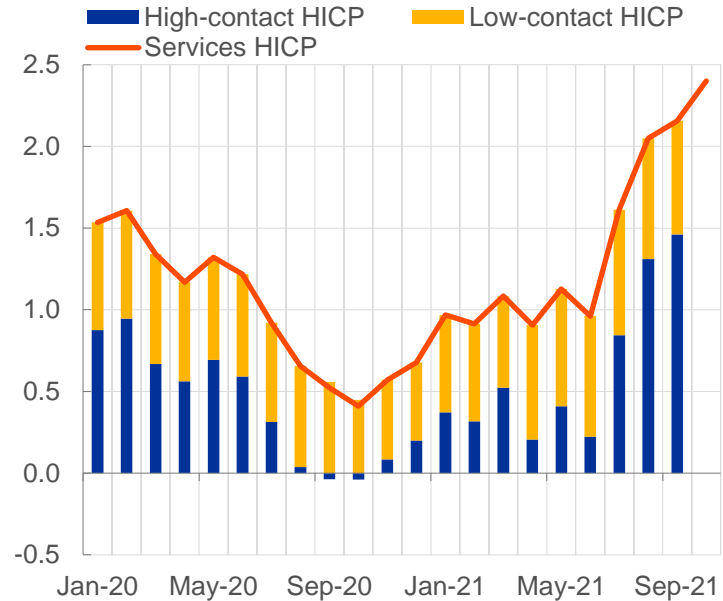


Source: Eurostat and ECB staff calculations.  
Latest observation: October 2021.

# Inflation of high-contact services and durable goods is increasing sharply

## High and low-contact services inflation

(annual percentage change, at constant 2020 weights;  
percentage point contributions)



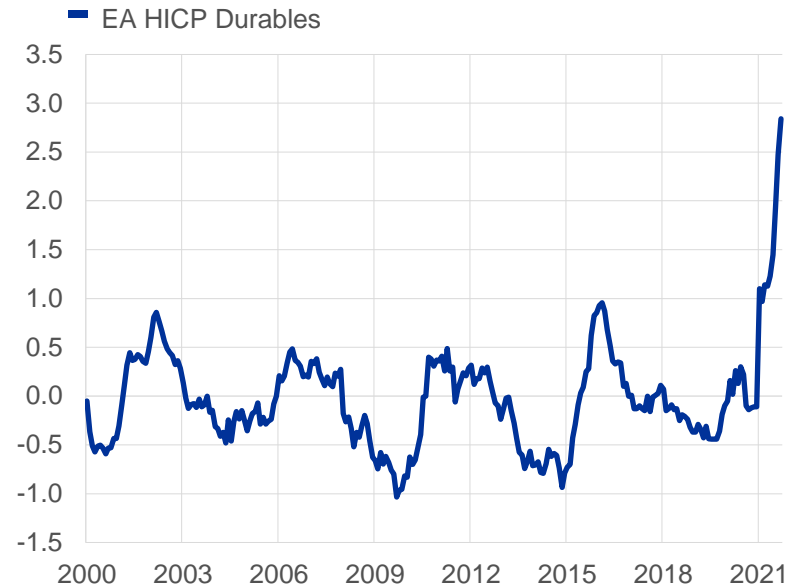
Sources: Eurostat and ECB staff calculations.

Note: The impacts of weights on services in October may change with the final HICP release.

Latest observation: October 2021.

## Euro area HICP inflation for durable goods

(annual percentage changes)

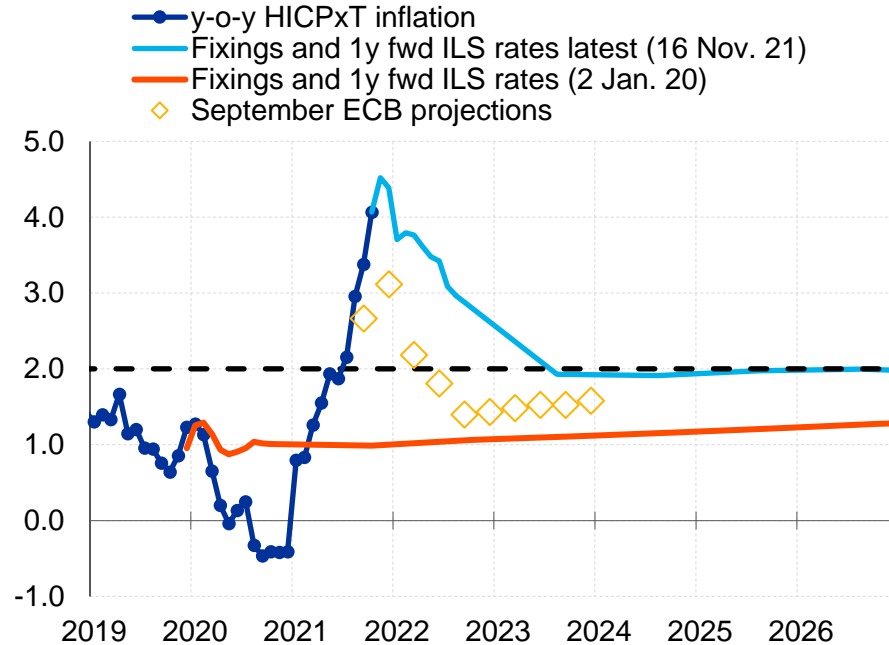


Source: Eurostat.

Latest observation: September 2021.

## Eurosystem inflation projections and inflation swap forward curve

(percentages per annum)



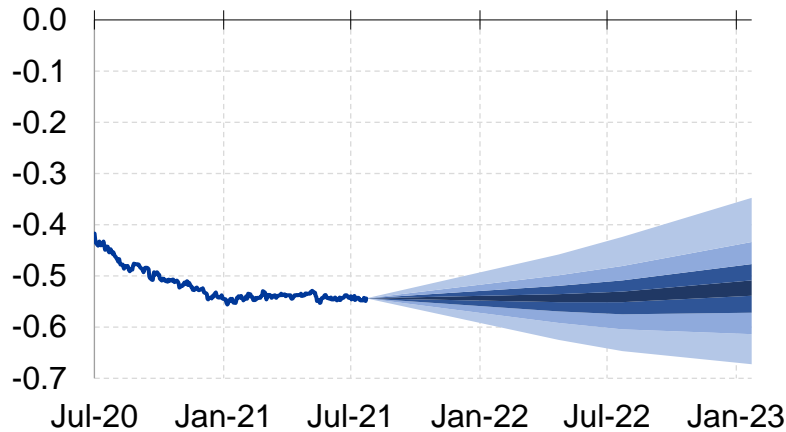
Sources: Bloomberg, Refinitiv, ECB calculations.  
Notes: HICPxT refers to HICP excluding Tobacco.  
Latest observation: September 2021 (HICPxT).

# Uncertainty around future path of short-term rates has increased measurably

## Probabilities of future evolution of 3-month Euribor as of 23 July 2021 (post-July GovC)

(percentage)

- 45%-55%
- 35%-65%
- 25%-75%
- 15%-85%
- Historical EURIBOR 3M

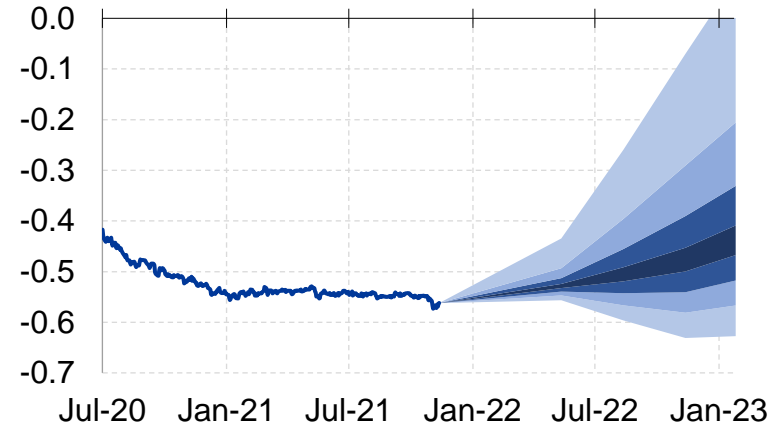


Source: ECB calculations.  
Latest observation: 12 November 2021.

## Probabilities of future evolution of 3-month Euribor as of 12 November 2021

(percentage)

- 45%-55%
- 35%-65%
- 25%-75%
- 15%-85%
- Historical EURIBOR 3M

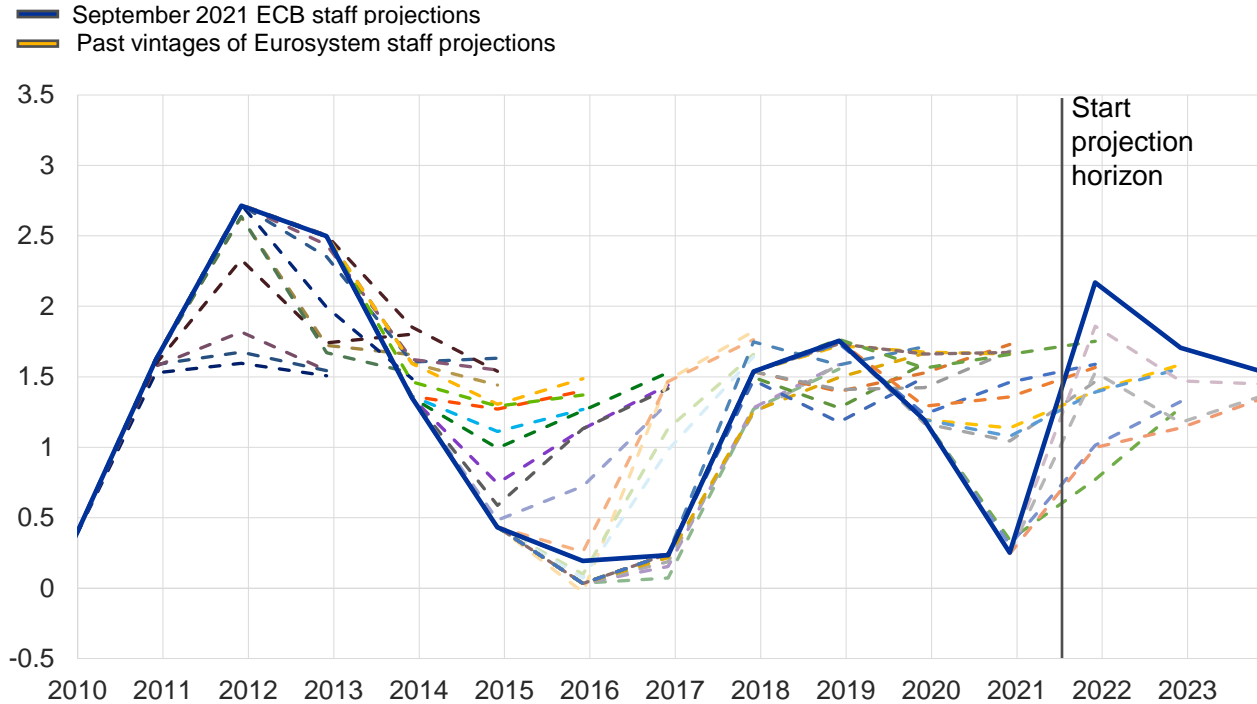


Source: ECB calculations.  
Latest observation: 12 November 2021.

# Inflation was overestimated pre-pandemic and underestimated in the pandemic

## Eurosystem inflation projections over time

(annual percentage change)

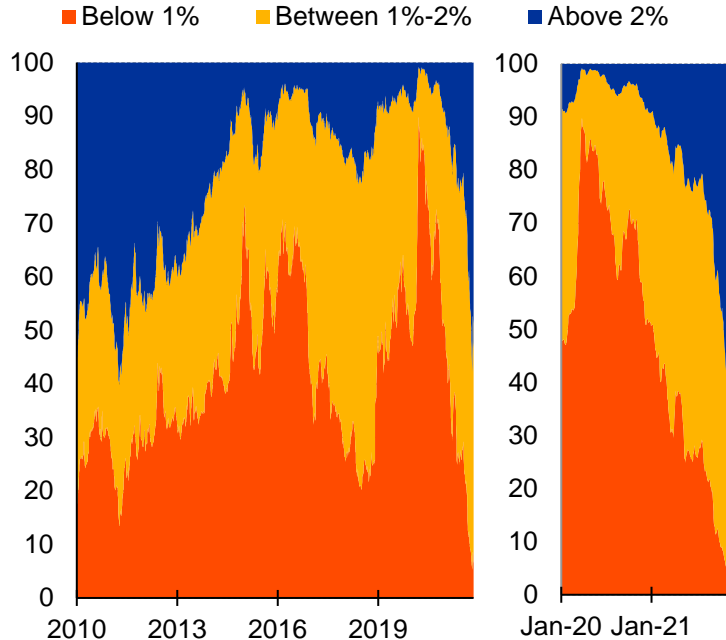


Source: ECB.

# Distribution of inflation risk is increasingly skewed to the upside

## Option-implied risk-neutral distribution of average inflation over the next 5 years

(percentages)



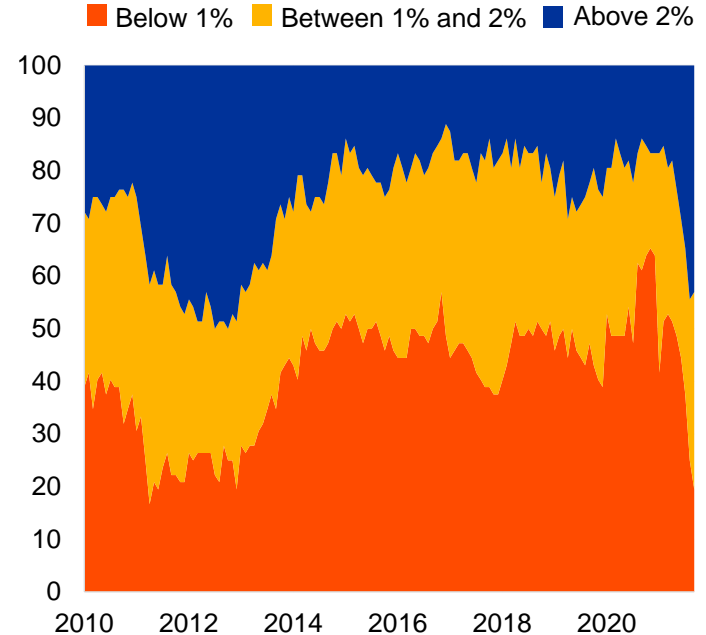
Sources: Bloomberg, Refinitiv, ECB calculations.

Notes: Probabilities implied by five-year zero-coupon inflation options smoothed over 5 business days. Risk neutral probabilities may differ significantly from physical, or true, probabilities.

Latest observation: 12 November 2021.

## Distribution of inflation rates across items included in HICPX inflation

(percentages)



Sources: Eurostat and ECB staff calculations.

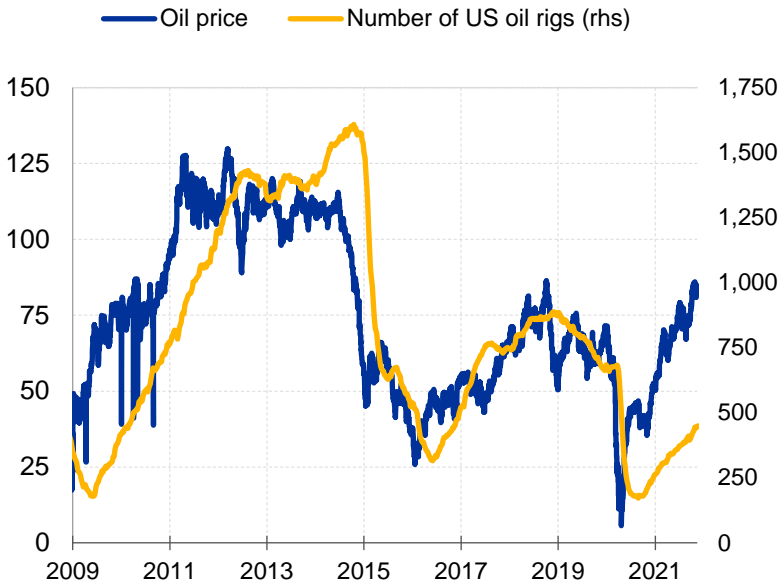
Latest observation: September 2021.

Notes: HICPX refers to the HICP excluding food and energy.

# Oil production is responding more slowly to rising oil prices

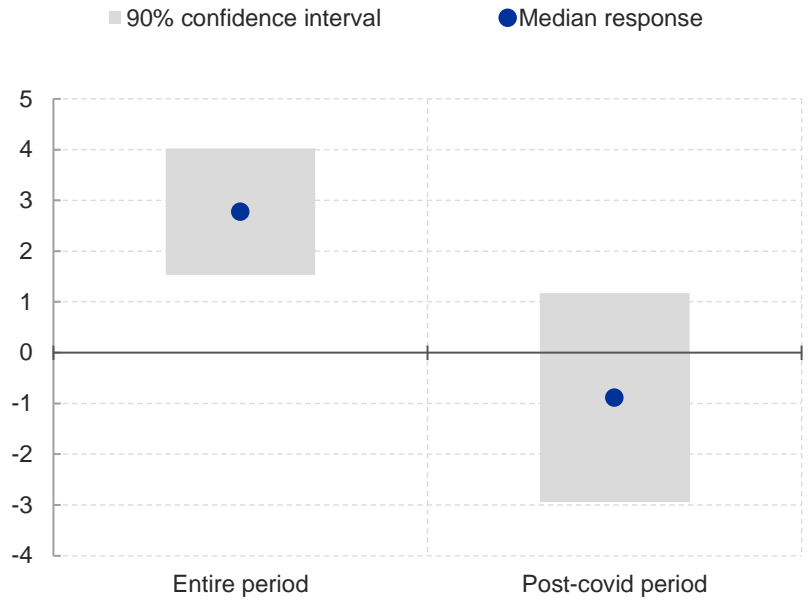
## Oil price and US shale production

(lhs: USD per barrel, rhs: number of oil rigs)



Sources: Bloomberg and Baker Hughes.  
 Latest observation: 12/11/2021 (oil price), 05/11/2021 (rig count).

## Response of world crude oil production three months after oil demand shocks (percent)



Sources: Bloomberg, Refinitiv, IEA and ECB staff calculations.  
 Notes: "Entire period": 06/2015 – 08/2021, "Post-covid period": 06/2020 – 08/2021.  
 Latest observation: August 2021.

**Thank you for your attention!**