

A new strategy for a changing world

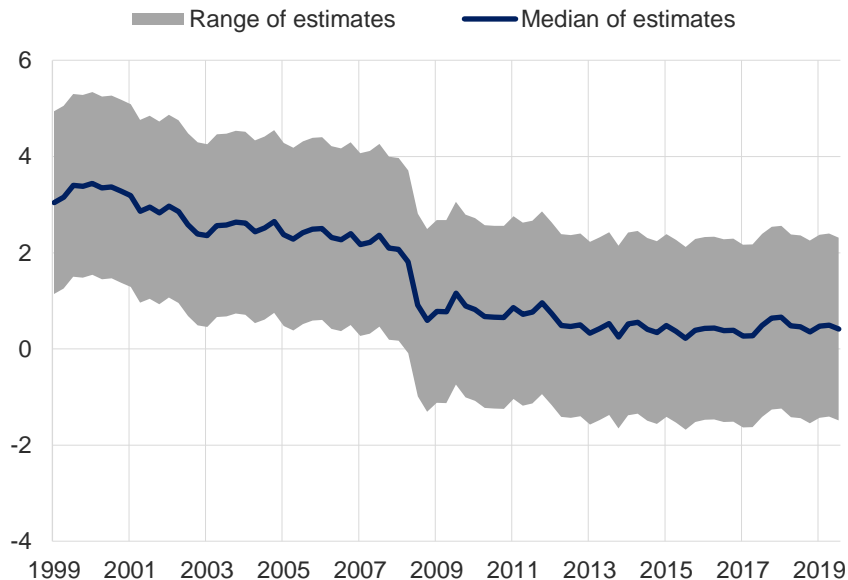
Isabel Schnabel, Member of the ECB's Executive Board

University of Sofia Youth Dialogue, 24 November 2021

Structural forces put downward pressure on real equilibrium interest rates

Estimates of US equilibrium rate

(percentage per annum)



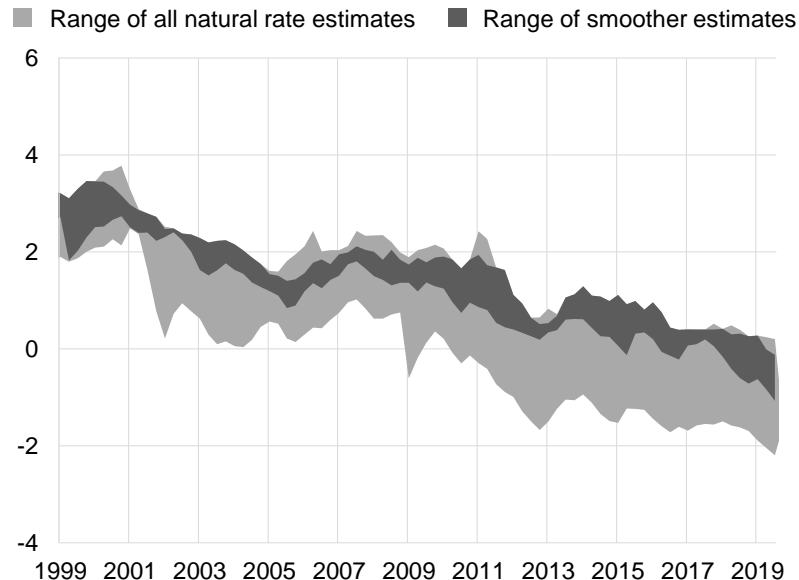
Sources: Holston, Laubach, Williams (2017); Fiorentini, Galesi, Pérez-Quirós, Sentana (2018).

Note: Ranges span point estimates to reflect filter and parameter uncertainty.

Latest observation: 2019 Q4.

Estimates of euro area equilibrium rate

(percentage per annum)



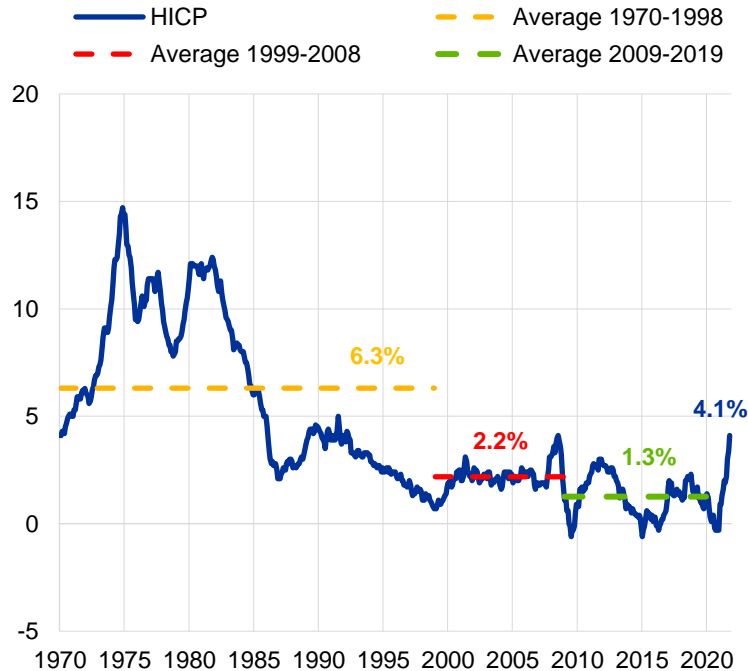
Sources: WGEM Report "The natural rate of interest: estimates, drivers, and challenges to monetary policy", OP, No 217; Ajevskis (2018); Brand, Goy, Lemke (2020); Brand, Mazelis (2019); Fiorentini, Galesi, Pérez-Quirós, Sentana (2018); Geiger and Schupp (2018); Holston, Laubach, Williams (2017); Jarocinski (2017); Johannsen and Mertens (forthcoming).

Notes: Ranges span point estimates across models to reflect model uncertainty and no other source of r^* uncertainty. The dark shaded area highlights smoother r^* estimates that are statistically less affected by cyclical movements in the real rate of interest.

Latest observation: 2019 Q4.

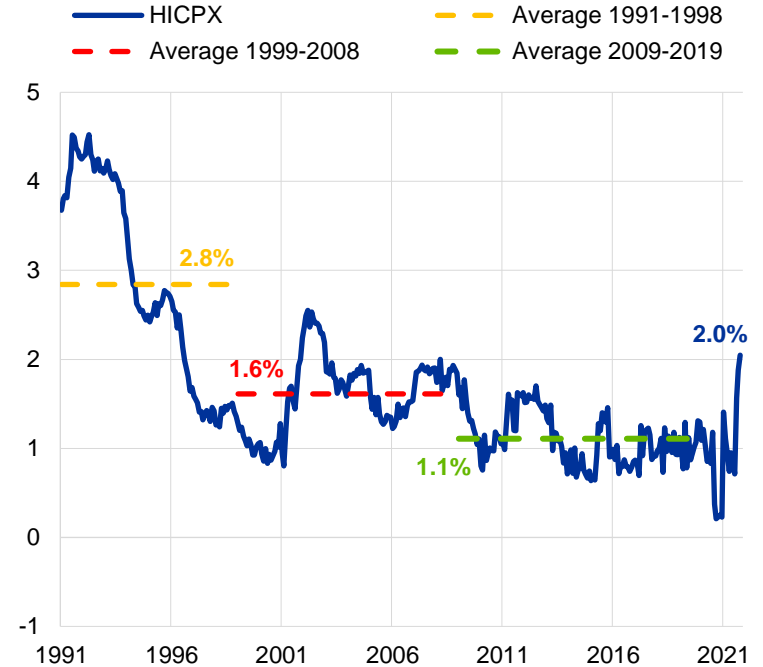
Secular decline in euro area inflation but recent spike

Headline HICP (annual percentage changes)



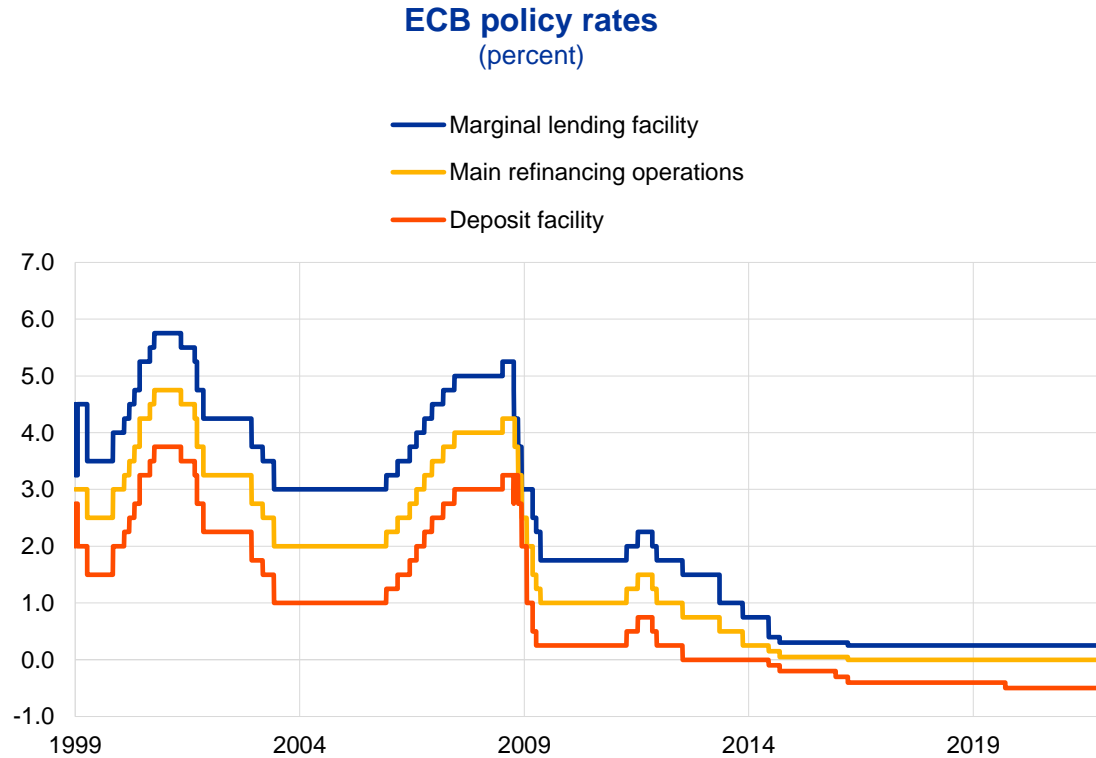
Sources: Eurostat and ECB calculations.
Latest observation: October 2021.

HICP excluding energy and food (annual percentage changes)



Sources: Eurostat and ECB calculations.
Note: HICPX refers to HICP excluding energy and food.
Latest observation: October 2021.

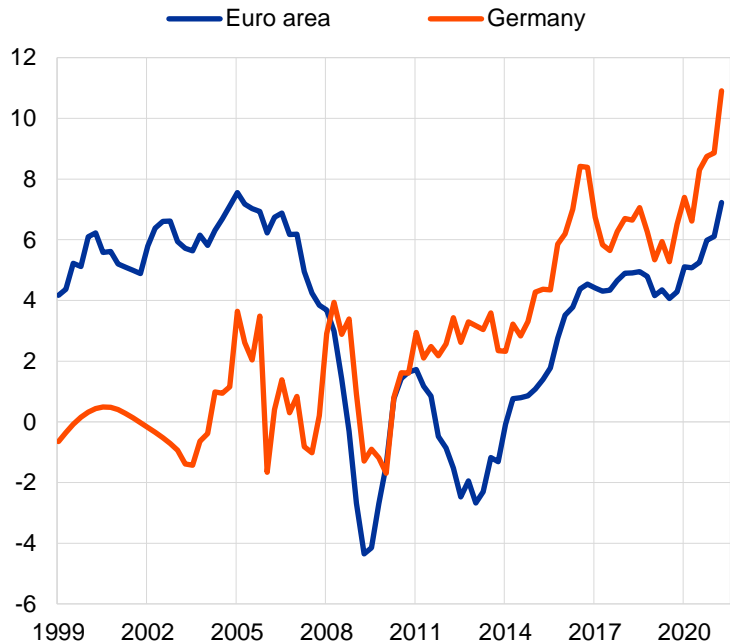
Conventional policy space largely exhausted already well before the pandemic



Source: ECB.
Latest observation: 19 November 2021.

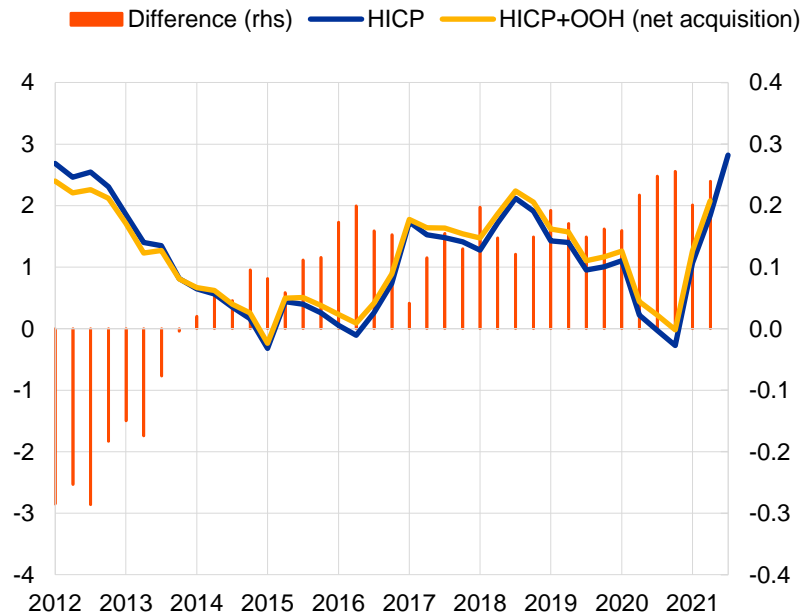
Commitment to integrate owner-occupied housing into inflation measurement

Residential property prices (annual percentage changes)



Source: ECB.
Latest observation: 2021 Q2.

HICP and HICP including owner-occupied housing (annual percentage changes)

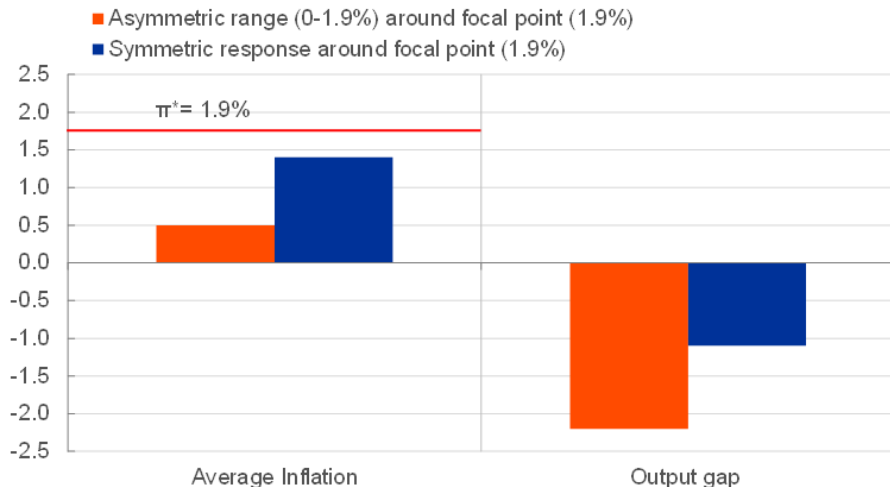


Source: ECB.
Latest observation: 2021 Q3 for HICP and 2021 Q2 for HICP-H.

Perceptions of asymmetric reaction function may affect inflation expectations

Macroeconomic outcomes over the longer-run: symmetry around 1.9% versus asymmetry

(annual percentage change and percentage deviation)

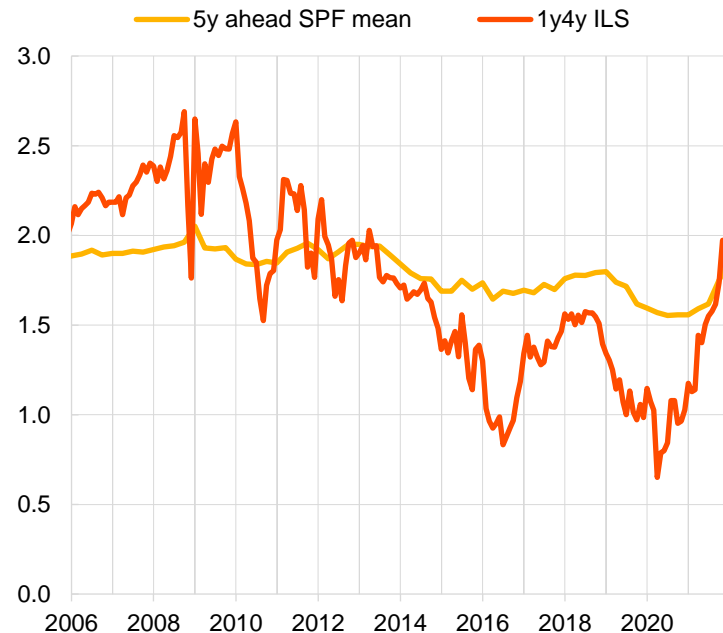


Source: Cecioni, Grasso and Pisani (2020).

Notes: Results based on stochastic simulations imposing the lower bound on nominal interest rates. Absent the lower bound, average inflation would be equal to the target and the output gap would be zero. The long-run level of the real rate is assumed to be 0.5%. It is assumed that the central bank abstains from using non-standard measures.

Survey and market-based measures of inflation expectations

(annual percentage changes)

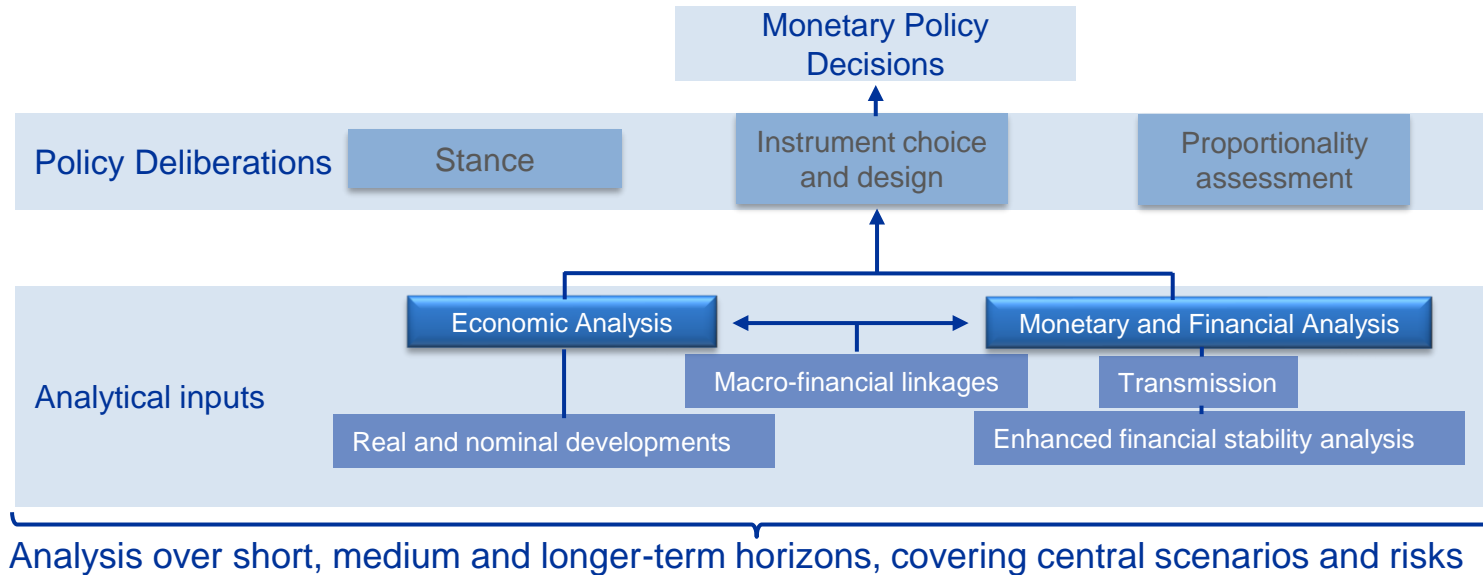


Sources: Bloomberg, Refinitiv, and ECB calculations.

Notes: The 1y4y ILS refers to the inflation-linked swap curve. Survey expectations from the Survey of Professional Forecasters (SPF) refer to the mean of the reported probability distributions for year-on-year expectations 5 years ahead.

Latest observation: 2021 Q4 (SPF), October 2021 (market data).

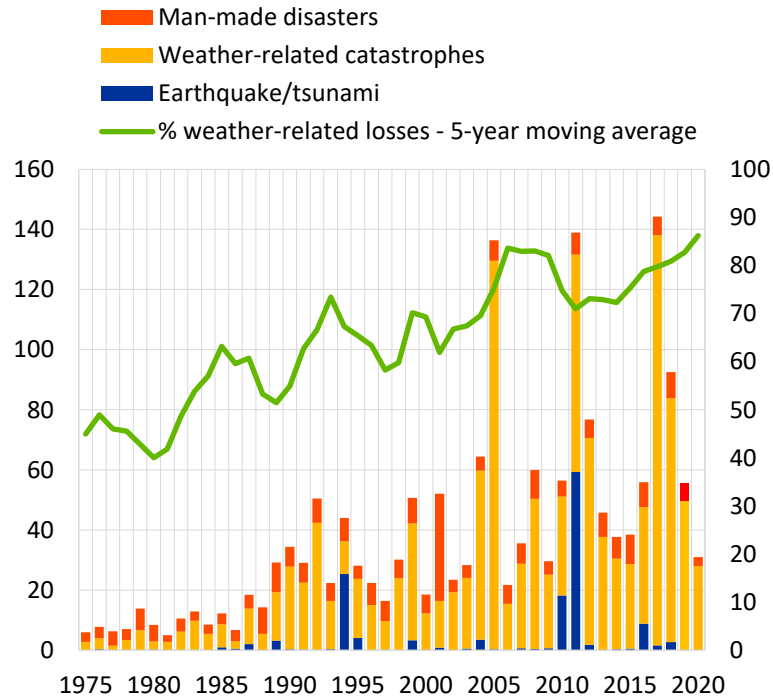
Greater prominence will be given to financial stability risks in new analytical framework



Rising physical risks of climate change

Global insured catastrophe losses

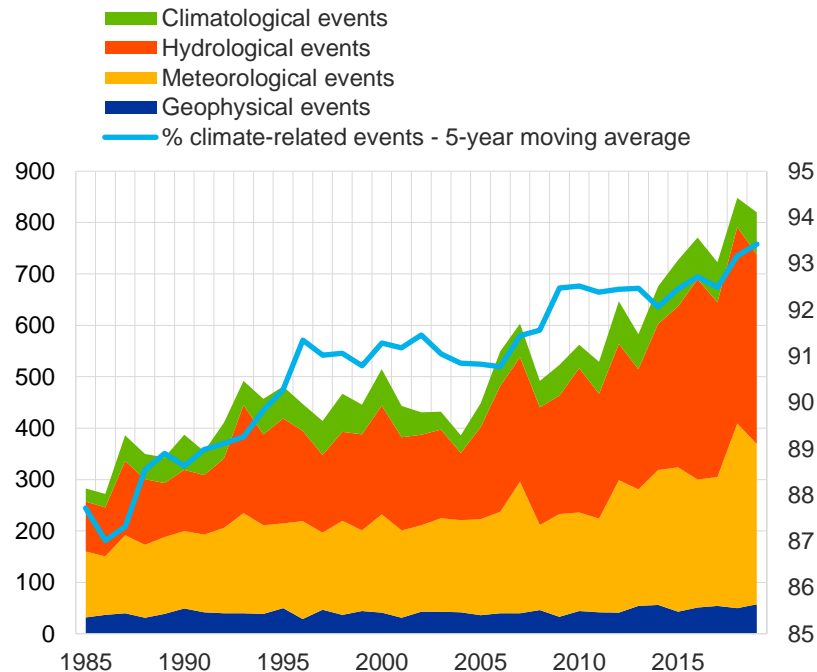
(left-hand scale: USD billions in 2020; right-hand scale: percentages)



Sources: Swiss Re Institute and ECB calculations.
Latest observation: June 2020.

Number of relevant natural loss events globally

(left-hand scale: number of events; right-hand scale: percentages)

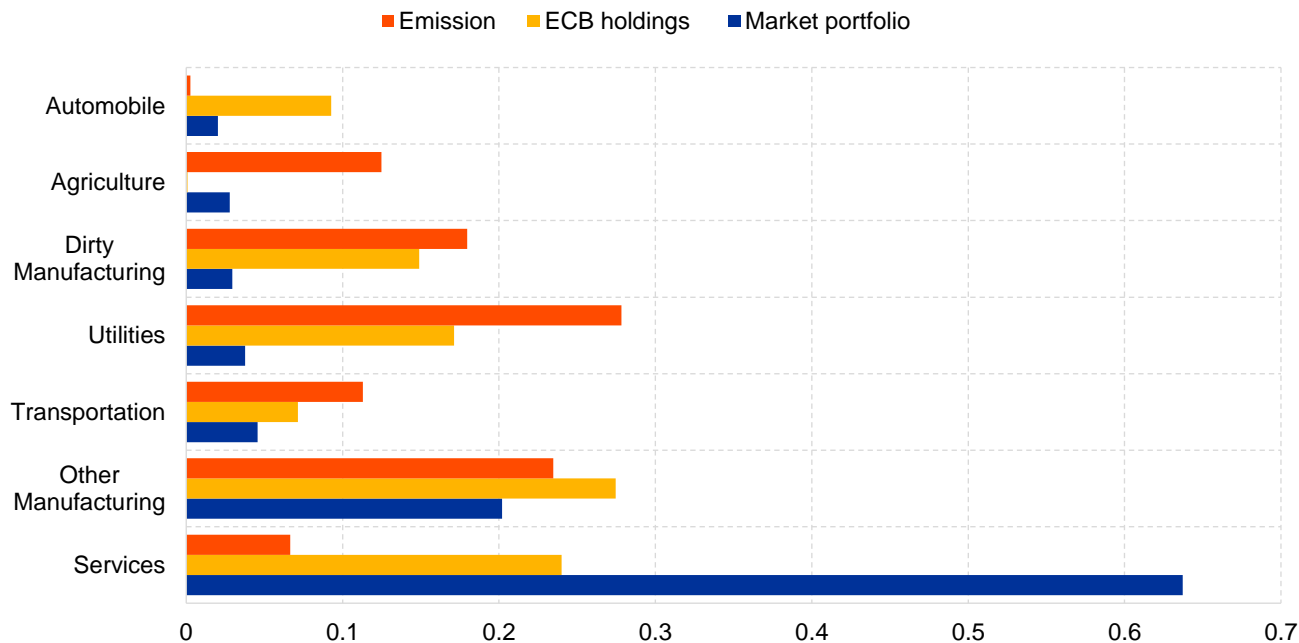


Sources: Munich Re NatCatService and ECB calculations.
Latest observation: December 2019.

Notes: Climatological events: drought and wildfire. Geophysical events: earthquake, tsunami, volcanic activity. Hydrological events: floods. Meteorological events: all types of storms.

Emission bias in the ECB's corporate bond portfolio

Market portfolio vs. ECB holdings vs. sectoral emission intensity (market shares)



Source: Papoutsi, Piazzesi, Schneider (2021). Data sources: ECB (SHS & CSDB), Eurostat, Orbis.

Notes: Market shares measured as capital income by sector. Emission intensity measured by Scope 1 air emissions by sector. "Dirty Manufacturing" = oil & coke, chemicals, basic metals, nonmetallic minerals. Other Manufacturing = food, beverages, tobacco, textiles, leather, wood, paper, pharmaceuticals, electronics, electrical equipment, machinery, furniture, construction, and other manufacturing.

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