



EUROPEAN CENTRAL BANK

EUROSYSTEM

Monetary policy tightening and the green transition

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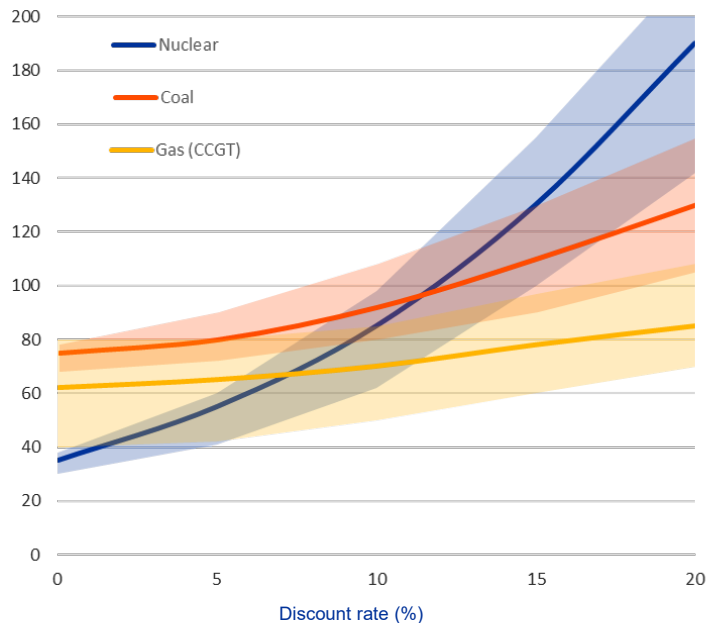


Higher interest rates weigh on price competitiveness of renewable energies

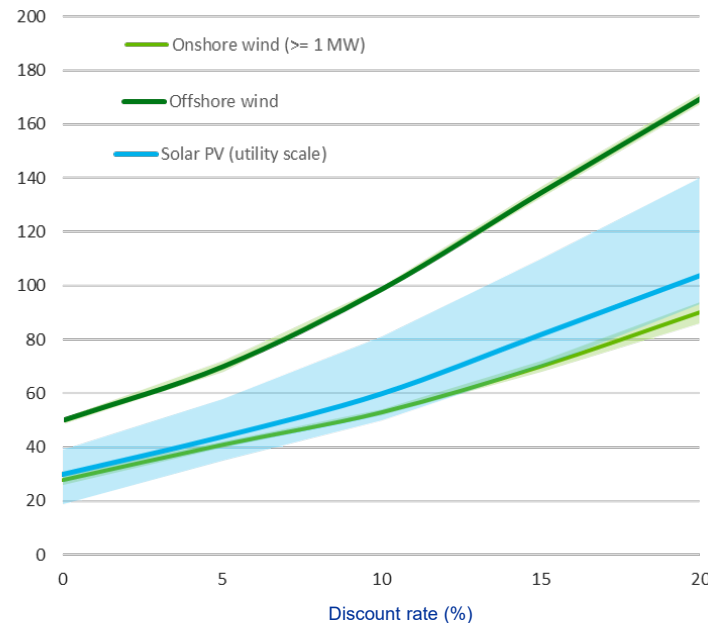
LCOE as a function of the discount rate

(USD/MWh)

Non-renewables



Renewables

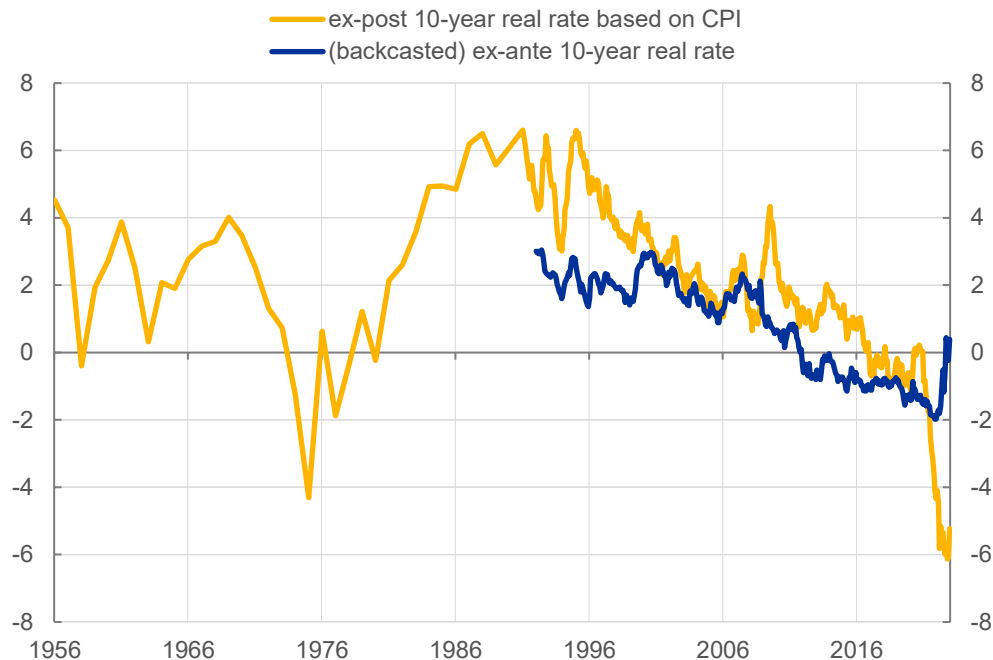


Source: International Energy Agency, Projected Costs of Generating Electricity 2020.
Notes: Lines indicate median values, areas the 50% (20% for renewables) central region.

Real long-term yields remain low from a historical perspective

Real ten-year sovereign bond yields

(%)



Sources: Jordà et. al (2019), Bloomberg, OECD, Consensus Economics, Eurostat, EPU, Refinitiv, IMF, FRED and ECB calculations.

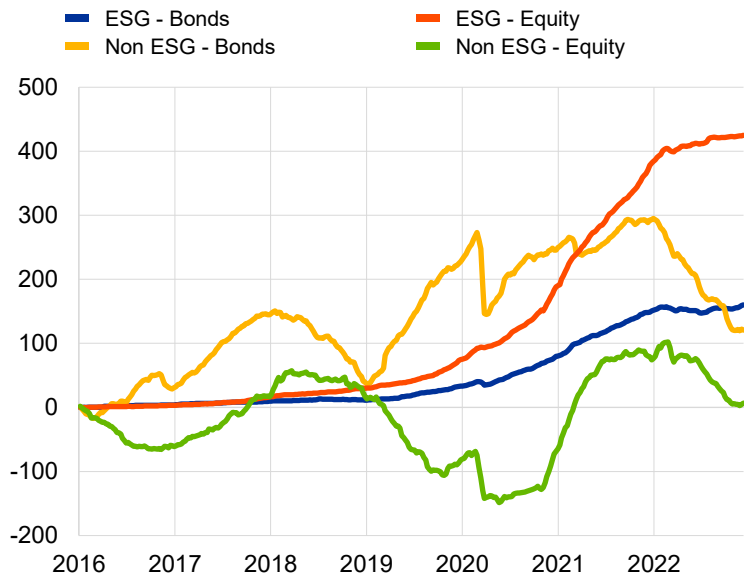
Notes: Real ex-post sovereign bond yields (yellow line) are the difference between the nominal annual yield in year t and realised inflation in year t until 1991 and the difference between the nominal annual yield in month m and realised year-over-year inflation in month m onwards. The real ex-post sovereign yield series is based on GDP-weighted data for Germany, France, Italy and Spain. Data for Italy before 1991, for Spain before 1980 and for Germany and France before 1973 are based on Jordà et al.(2019), op. cit. As of August 2005 the ex-ante 10-year real rate (blue line) is computed by subtracting 10-year euro area ILS rates from 10-year OIS rates. Before August 2005 depicted real rates represent 'backcasts' based on a large set of macroeconomic and financial time series going back to 1992.

Latest Observation: December 2022.

Flows into ESG funds have proven more resilient, boosting the “greenium”

Cumulative flows into ESG and non-ESG funds in the euro area since 2016

(USD billions)

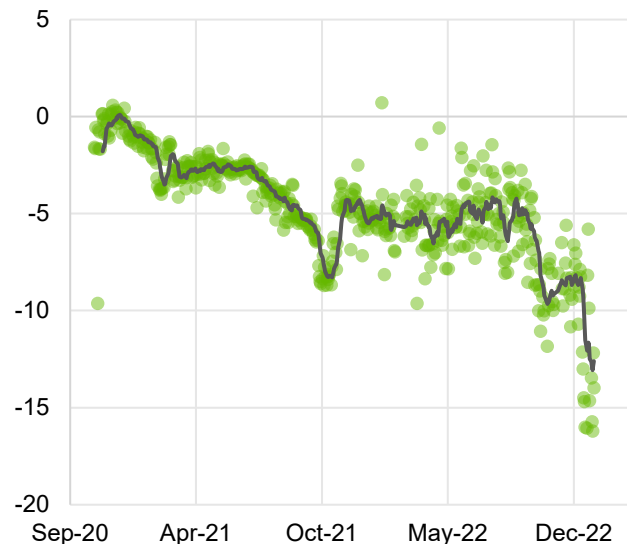


Sources: Emerging Portfolio Fund Research (EPFR)

Notes: The chart shows cumulative flows of euro area domiciled funds covered by EPFR. ESG stands for Environment, Social and Governance. Only funds that are marketed as ESG Funds or indicate that investing in ESG being one of their main objectives are included in the EPFR database with the ESG tagging.

“Greenium” of German twin bond maturing in 2025

(in bps)

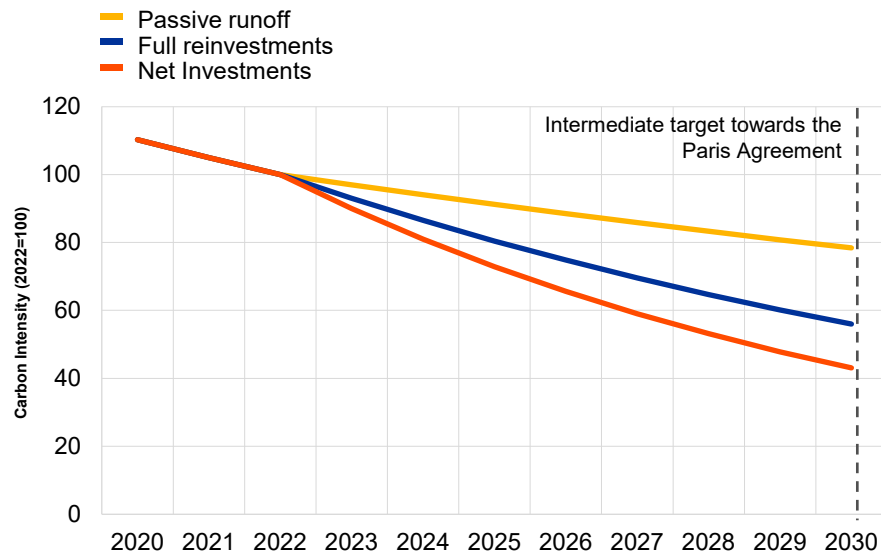


Sources: Bloomberg, ECB calculations

Notes: Chart shows the greenium of the German twin government bond maturing in 2025 over time. Dots show daily observations and the green line indicates 10-day moving averages. Last observation: 6 January 2023.

Decarbonisation of corporate bond portfolio under different purchase scenarios

(Carbon intensity normalised to 100)



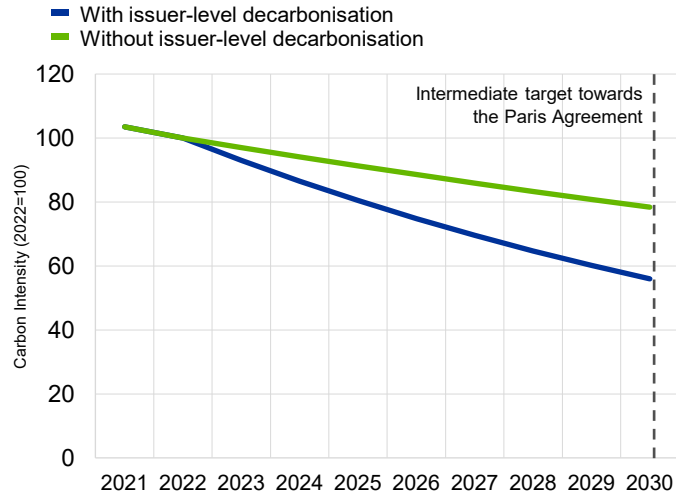
Sources: ECB calculations.

Notes: Chart shows hypothetical decarbonisation pathways of the CSPP and the corporate PEPP portfolio under different purchase scenarios but identical tilting parameters. Net investments refers to a scenario with net purchases of approximately EUR 2 bn per month. A passive runoff indicates a scenario in which maturing bonds are not replaced in the portfolio. All pathways assume a constant decarbonisation pace and abstract from short-run fluctuations due to the concentration of maturing bonds from high or low carbon emitters in particular years.

Pace of portfolio decarbonisation strongly depends on firms' own climate efforts

Decarbonisation of corporate bond portfolio under full reinvestment scenario with and without issuer-level decarbonisation

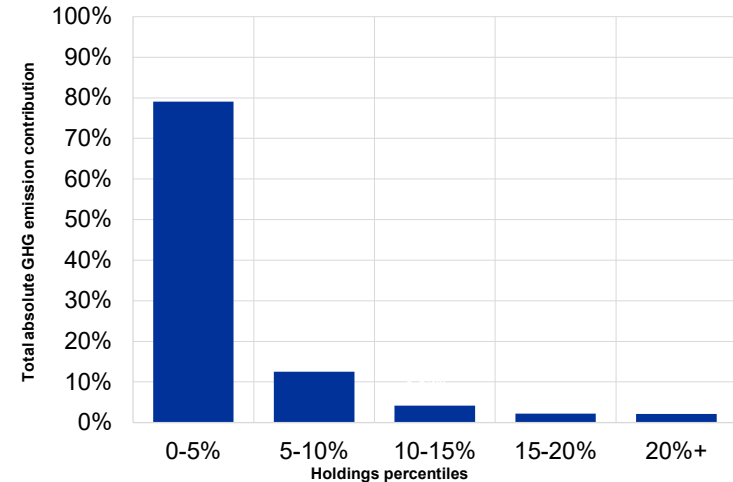
(Carbon intensity normalised to 100 in 2022)



Source: ECB calculations.

Notes: The analysis simulates a constant annual reinvestment in the CSPP and the corporate PEPP portfolio that prioritises green issuers that are held underrepresented relative to their benchmark allocation. Companies' own decarbonisation efforts are assumed to follow their commitments (7% p.a. for 1.5°C decarbonisation targets, and 3.2% p.a. for well-below 2°C targets, and 0% for all others).

Distribution of greenhouse gas emissions by % of corporate bond holdings

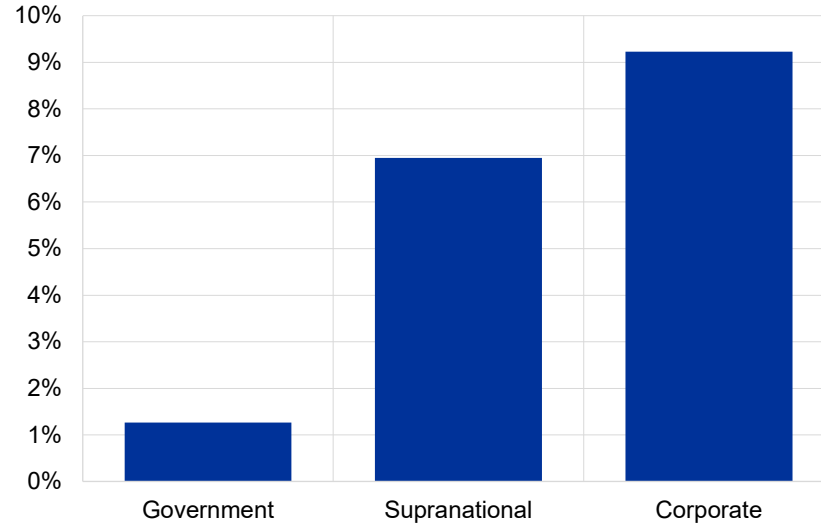


Source: ECB calculations.

Latest update: 12 December 2022.

Green bond universe larger for supranational institutions than for sovereigns

Share of green bonds in universe by asset class (%)



Sources: Bloomberg, ECB calculations.
Latest observation: 23 December 2022.

Thank you very much for your attention!