

A new age of energy inflation: climateflation, fossilflation and greenflation

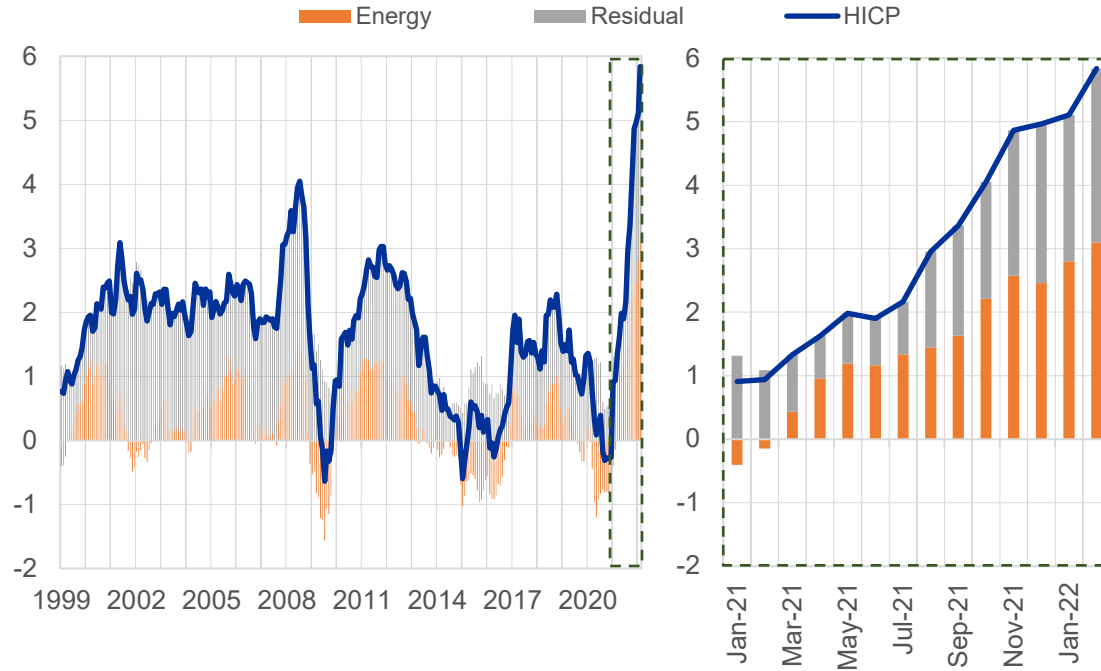
Isabel Schnabel, Member of the ECB's Executive Board

*Remarks at a panel on “Monetary Policy and Climate Change” at The ECB
and its Watchers XXII Conference, Frankfurt am Main, 17 March 2022*

Energy accounted for more than 50 percent of headline inflation in February

Energy contribution to HICP

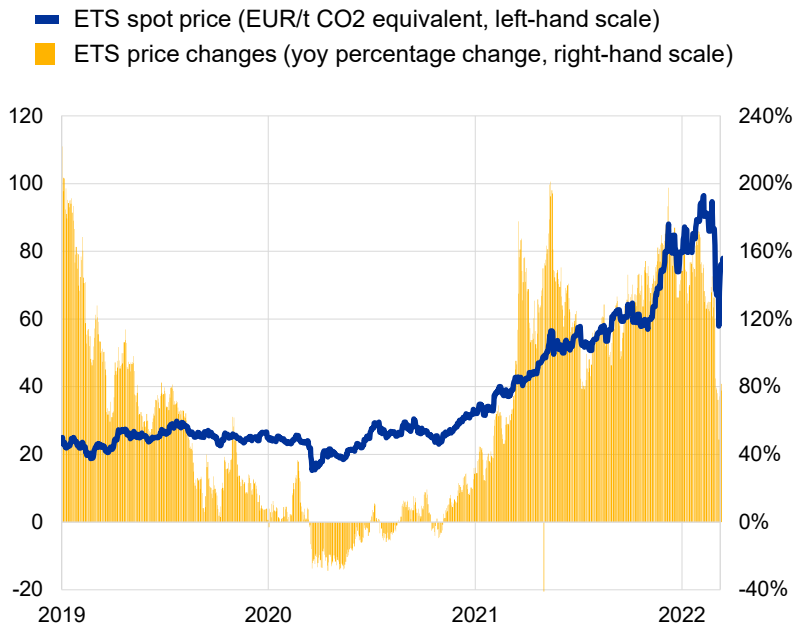
(annual percentage changes; percentage point contributions)



Source: Eurostat and ECB staff calculations.
Last observation: February 2022.

EU carbon price has increased sharply, with oil production below pre-pandemic level

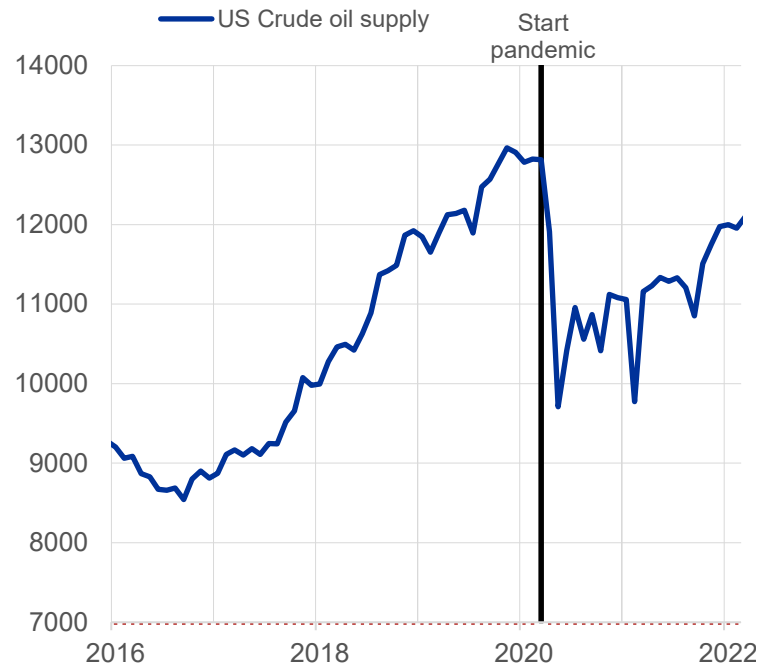
Emissions Trading System (ETS) spot price developments (units in legend)



Source: Eurostat and ECB staff calculations.

Notes: Daily observations. Last observation: 15/03/2022.

US crude oil supply ('000 in bbl/d)



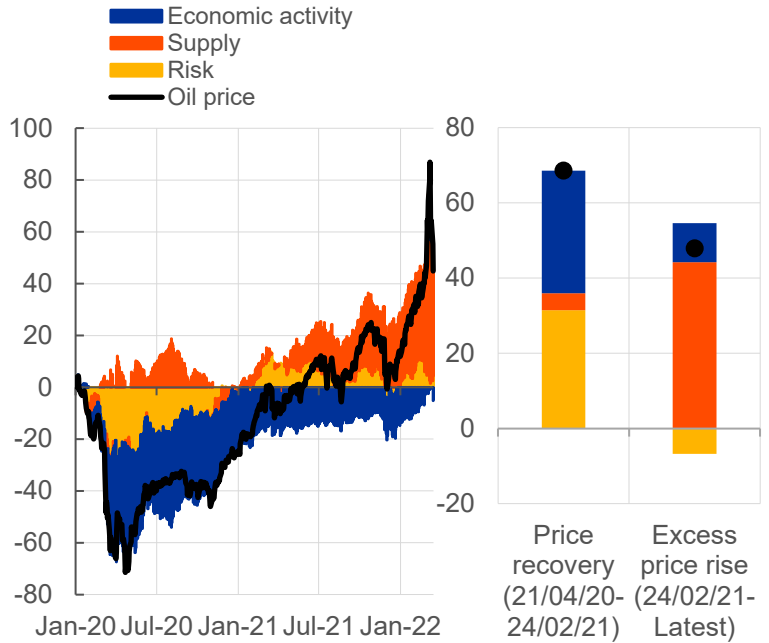
Source: IEA.

Last observation: Feb-2022.

Supply accounts for most of the “excess” oil price rise, while metal prices are surging

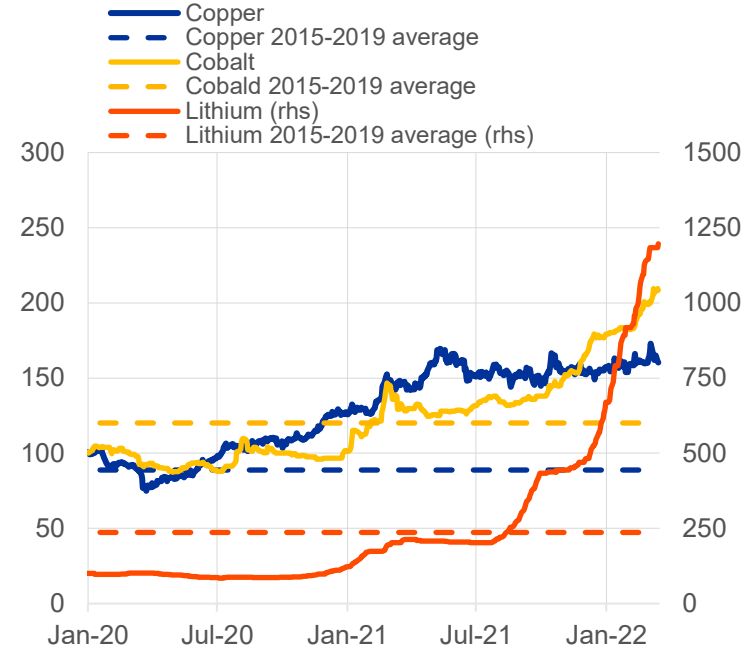
Oil price decomposition

(daily cumulated percentage change since 01/01/2020)



Selected metal prices

(index, 100 = 1 Jan. 2020)

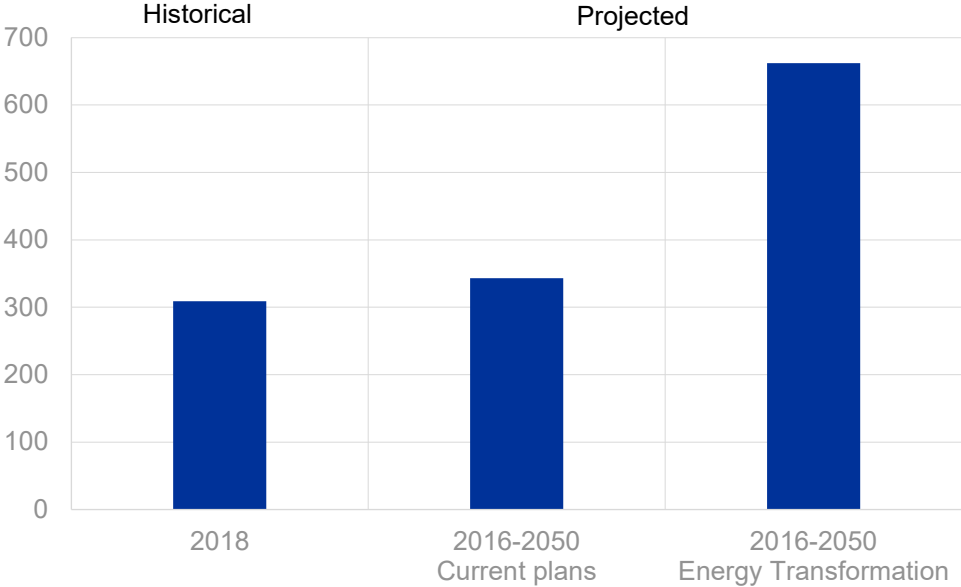


Sources: Refinitiv and ECB staff calculations.
 Notes: Structural shocks are estimated using the spot price, futures to spot spread, markets expectations on oil price volatility and stock price index. “Excess price rise” refers to the model decomposition from the time when oil prices were back to their pre-pandemic levels.
 Latest observation: 15/03/2022.

Sources: Bloomberg.
 Latest observation: 15/03/2022.

Energy transformation requires a doubling of global annual investments

Actual global annual investment and needs for energy transformation (USD billions)



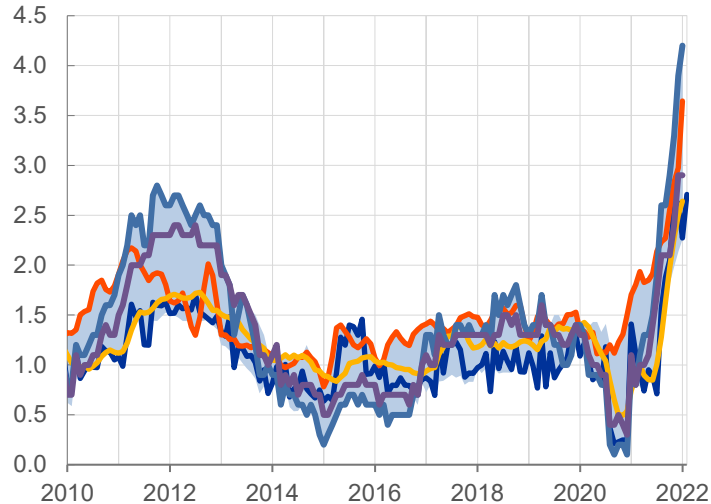
Source: International Renewable Energy Agency.

Underlying inflation is rising measurably as price pressures are broadening

Measures of underlying inflation

(annual percentage changes)

- HICP excluding energy and food
- PCCI (persistent and common component of inflation)
- Supercore
- Trimmed mean (10%)
- Trimmed mean (30%)

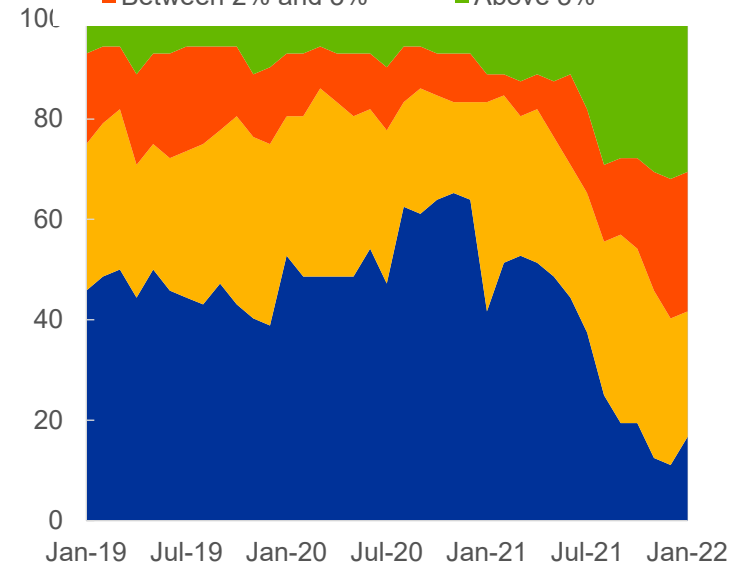


Source: ECB and ECB staff calculations.
Latest observation: February 2022 for HICPX (flash), January 2021 for the rest.

Share of HICP items according to pace of change

(percentage point contributions)

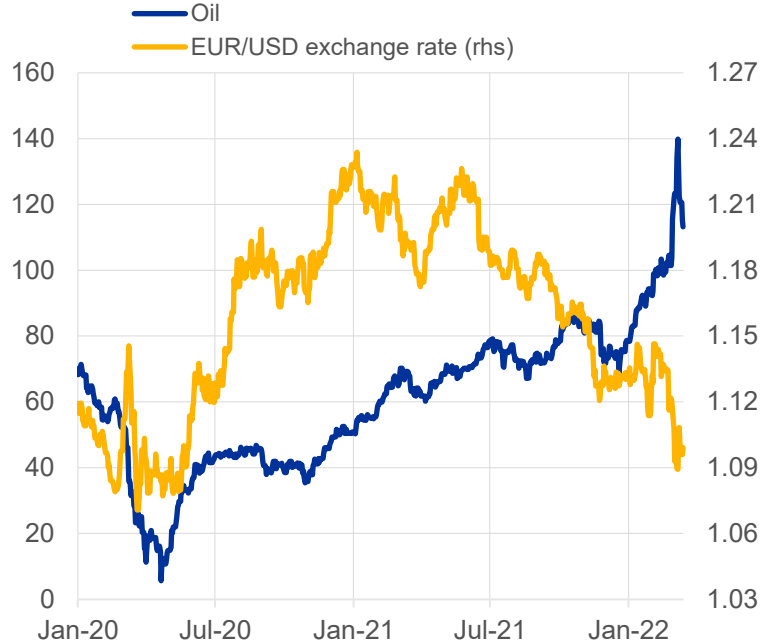
- Below 1%
- Between 1% and 2%
- Between 2% and 3%
- Above 3%



Source: ECB and ECB staff calculations.
Latest observation: January 2022.

Terms of trade shock, reinforced by weaker euro, contributes to higher inflation

Brent spot price and EUR/USD exchange rate (USD/barrel for oil)



Source: Refinitiv and ECB staff calculations.
Latest observation: 15/03/2022.

Market-based measures of longer-term inflation compensation (percentages per annum)

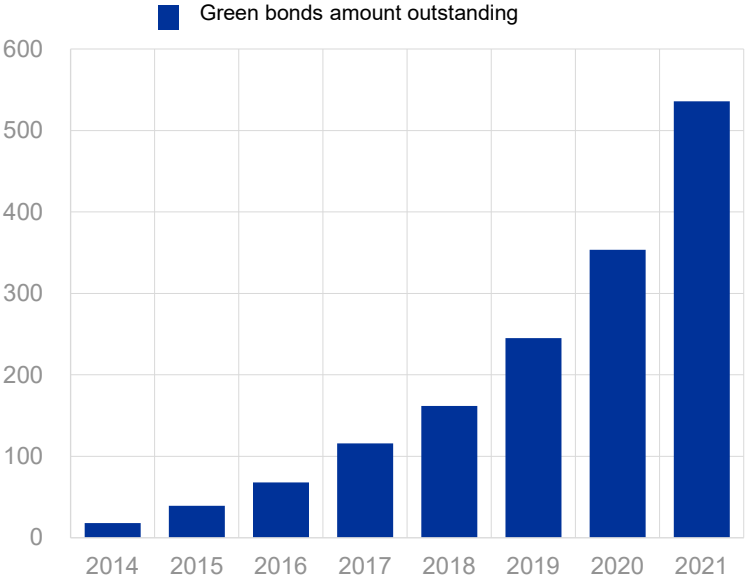


Sources: Refinitiv and ECB Calculation
Notes: The chart shows the five-year inflation linked-swap (ILS) rate five years ahead.
Latest observation: 15/03/2022.

Green bond market is growing rapidly and providing cheaper funding

Size of the euro area green bond market

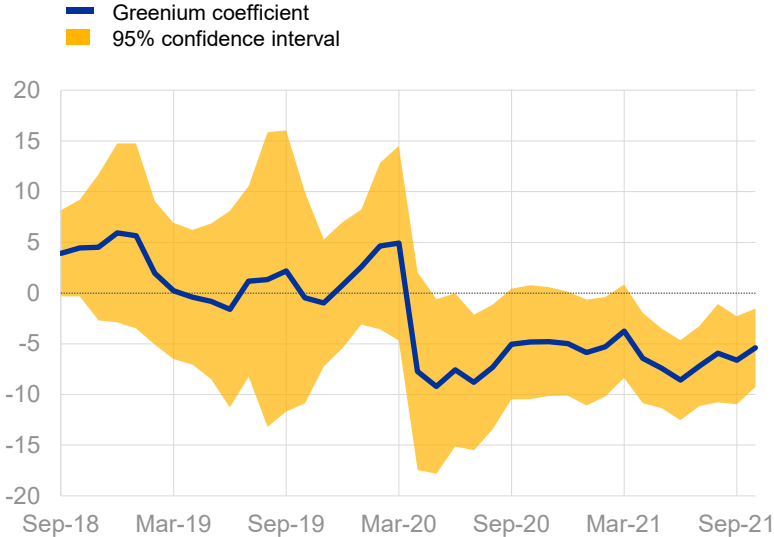
(€ billion, total amount outstanding)



Source: Bloomberg.
 Notes: Green bonds are classified according to the ICMA green bond principles. Bonds receive a green bond flag if the “Use of Proceeds Principle” is satisfied, i.e., proceeds from the bond are entirely used to (re)finance green projects.

Monthly “greenium” estimates for euro area green bonds

(difference in OAS between matched pairs of green and conventional bonds)



Source: Pietsch, Salakhova (2022). Last observation 31/10/2021.
 Notes: Negative values indicate the presence of a greenium, negative spread between green and non-green bonds of similar risk profile. The data include only euro area bonds. Estimates are based on a bond-date panel regression of matched green and conventional bonds in monthly subsets. The dependent variable is the option-adjusted spread of each bond which is regressed on a set of control variables, i.e., risk-free rate, credit risk, liquidity risk, bond-specific variables, and a green dummy variable indicating whether a bond is green or not.

Thank you for your attention!