Unconventional fiscal and monetary policy at the zero lower bound

Isabel Schnabel
Member of the ECB Executive Board

Closed output gaps and record low unemployment before the pandemic

Output gap
(% of potential GDP)

Euro Area
Advanced economies

Start pandemic

Source: International Monetary Fund (World Economic Outlook, Jan 21)

Unemployment rate
(% of labour force)

Euro Area
Advanced economies

Start pandemic
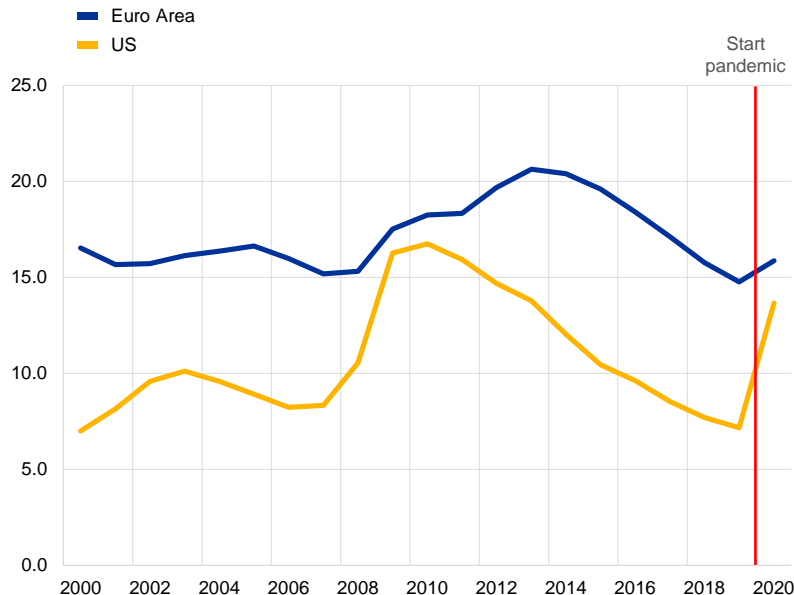
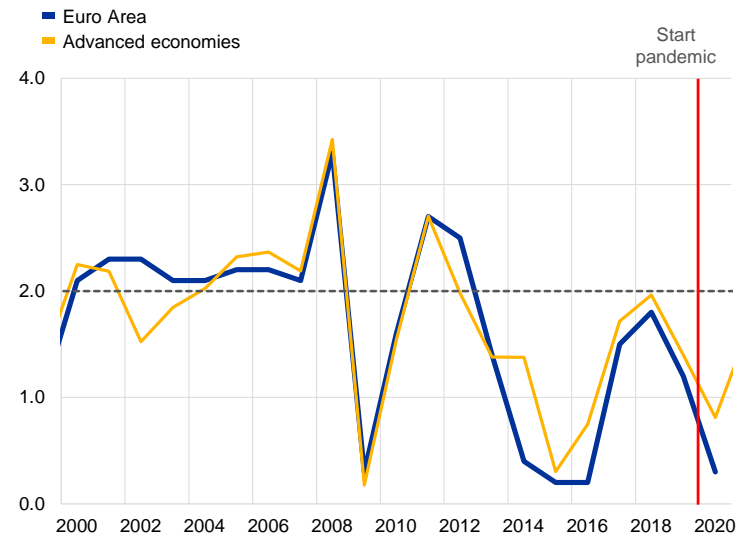Source: International Monetary Fund (World Economic Outlook, Jan 21)

Inflation remaining subdued in spite of broader measures of slack signaling scarcity

Broad measure of unemployment slack (U6)
(% of augmented labour force)

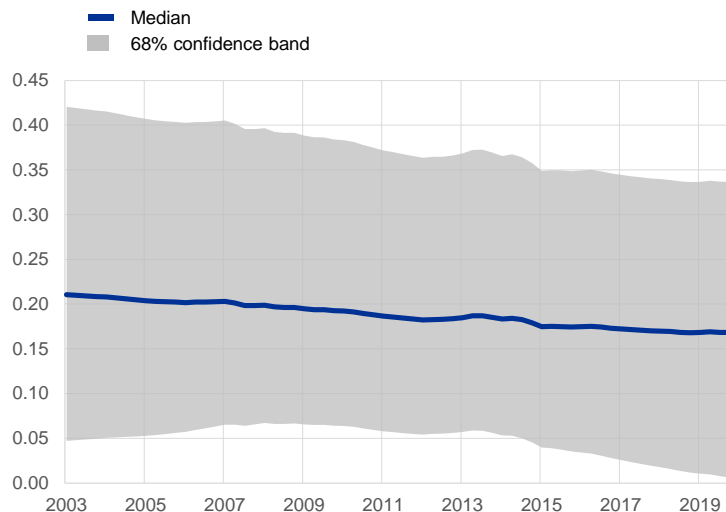Sources: U.S Bureau of Labour Statistics (BLS), Eurostat and ECB staff computations.

Consumer price inflation
(annual percentage changes)

Sources: Eurostat and IMF.
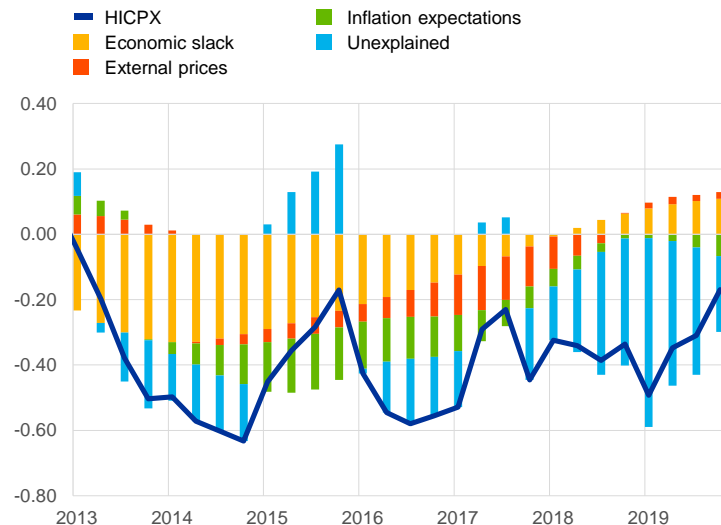Notes: Annual data. Latest observation for 2020.

Phillips curve models pointing to structural factors explaining low inflation

Euro area Phillips curves:
coefficient on slack across range of models

Euro area Phillips curves:
decomposition of HICP excluding energy and food
(annual percentage changes and percentage points contributions)

Sources: ECB staff calculation.
Note: Sample: 1999Q1 to 2019Q4. Based on a pool of models as detailed in Bobeica, E. and Sokol, A. (2019), "Drivers of underlying inflation in the euro area over time: a Phillips curve perspective," Economic Bulletin Article, European Central Bank, Vol. 4.
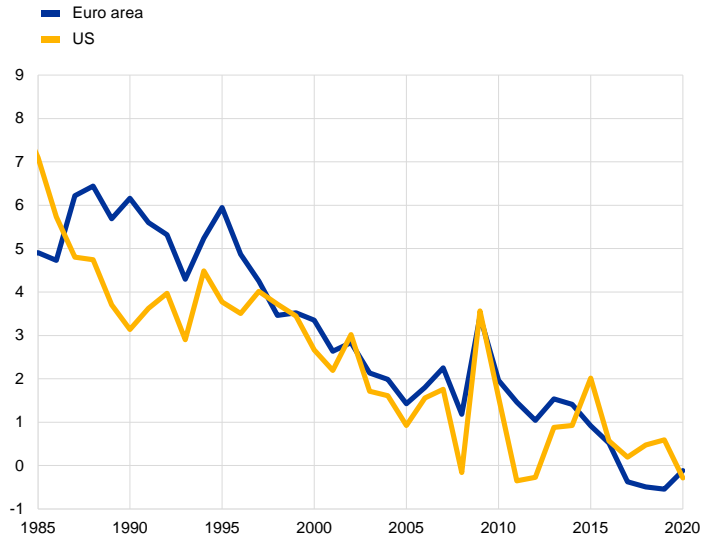
Sources: Eurostat and ECB staff calculations. The HICPX series is seasonally adjusted and displays a kink in 2015 due to a methodological change.
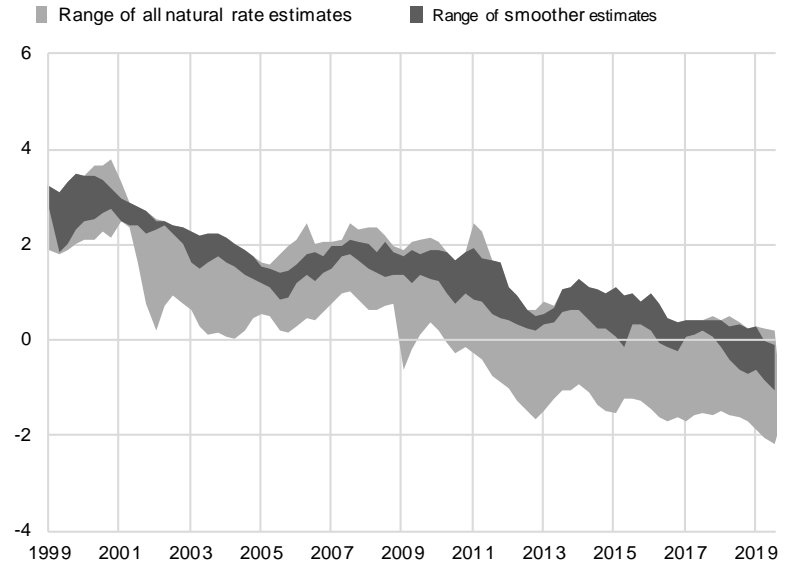Notes: Same models used as for left-hand chart. All values are in terms of deviations from their averages since 1999 or later, depending on the specification. The bars show average contributions across specifications. The sample covers 1999Q1 to 2019Q4 to avoid the effect on estimation of the Covid-19 shock.

Low inflation coinciding with declining real short- and long-term interest rates

Real ten-year sovereign bond yields
(percentages per annum)

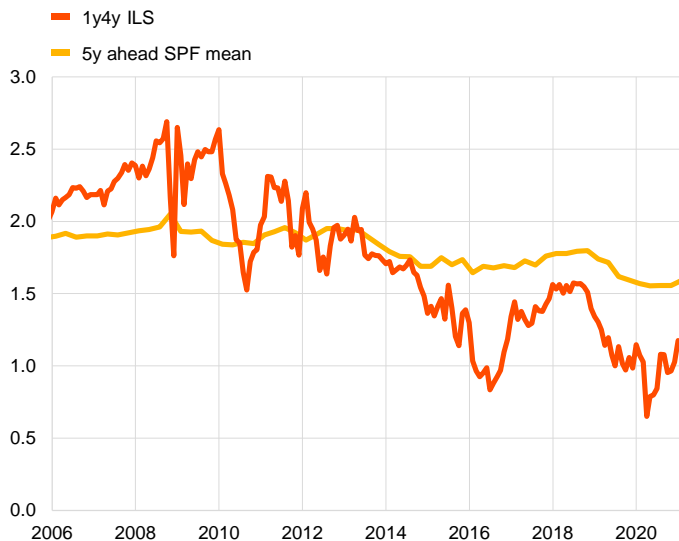## Estimates of euro area equilibrium rate
(percentages per annum)

Sources: IMF, FRED, Thomson Reuters, Jordà, Knoll, Kuvshinov, Schularick, Taylor (2019), Feenstra, Inklaar, Timmer (2015), ECB calculations. Notes: Real sovereign bond yields are the difference between the nominal yield in year t and realised inflation in year t. The euro area series is based on real GDP-weighted data for Germany, France, Italy and Spain. Real GDP data is based on Feenstra et al. (2015). Data for Italy before 1991 is based on Jordà et al. (2019), op. cit. Latest observation: 2020.

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: 2019Q4.
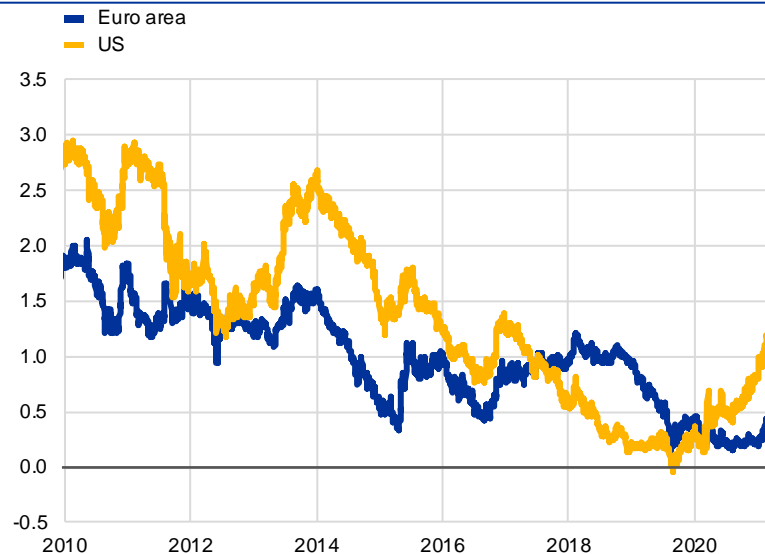
Inflation expectations adjusting downwards amid flattening yield curve

Survey- and market-based measures of inflation expectations
(percentages per annum)

Sources: Bloomberg, Refinitiv, and ECB calculations.
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 Q1 (SPF), January 2021 (market data).
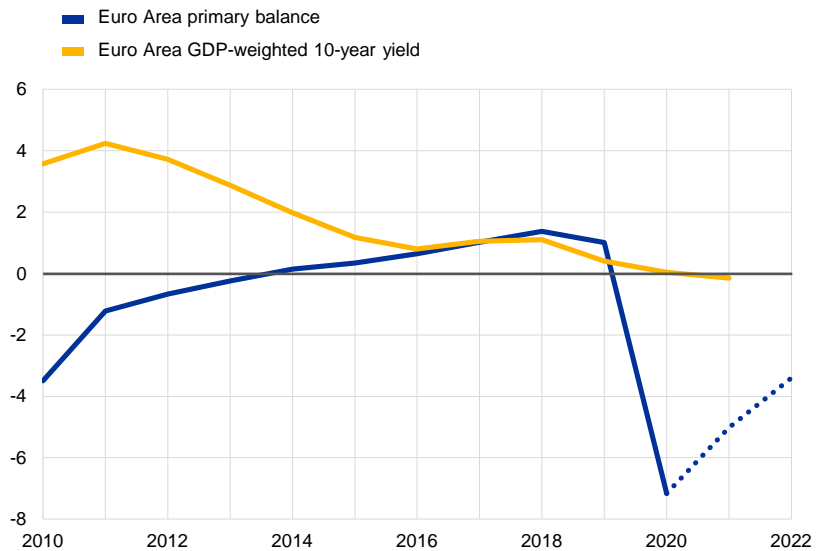
Slope of euro area OIS and US Treasury curve
(percentage points)

Sources: Refinitiv, Bloomberg, and ECB calculations.
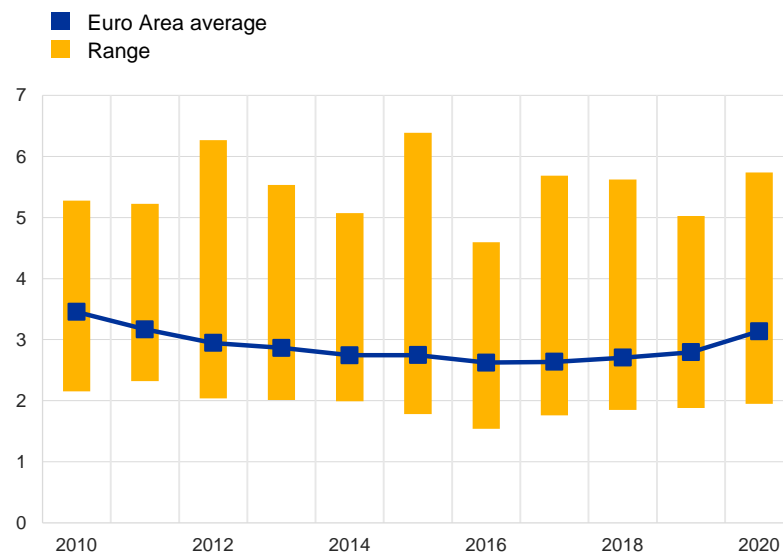Note: Data refer to the difference between the 10-year and the 2-year rate.

Pre-pandemic fiscal policy largely unresponsive to monetary policy easing

Euro area primary balance
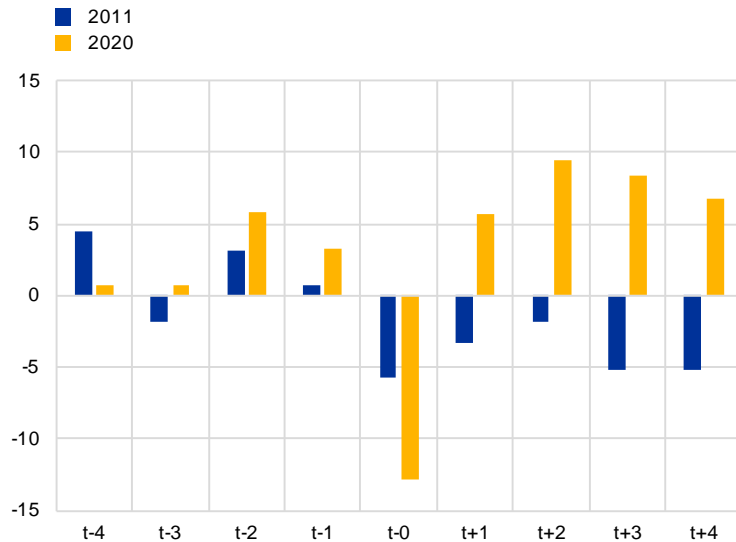(% of GDP)

Source: AMECO and ECB.

Euro area public investment
(% of GDP)

Source: AMECO

Monetary policy protecting private risk-sharing and enabling fiscal policy

Sovereign debt crisis and pandemic: intra-euro area portfolio cross-border flows (% of GDP)

Euro area 10-year GDP-weighted sovereign yield spread over OIS (percentage points)

Source: ECB data.
Note: T0 is set to June for 2011 and March for 2020 respectively. Monthly data as % of yearly gross domestic product.

Source: ECB.
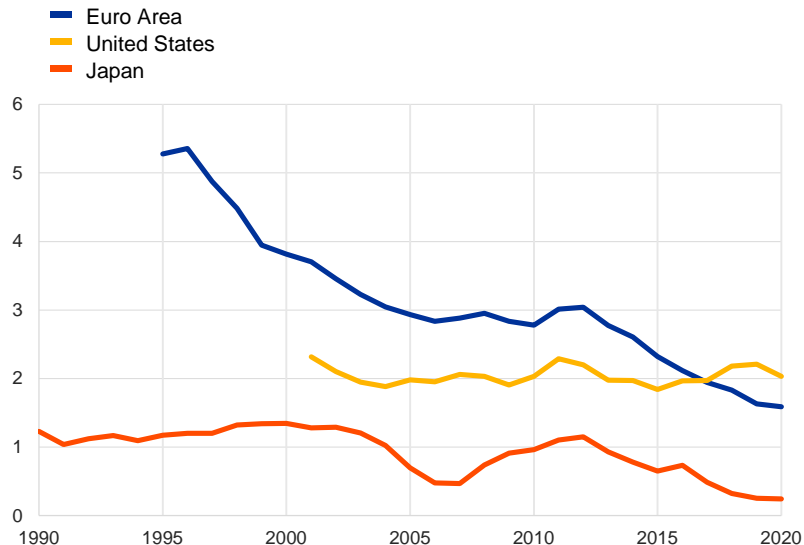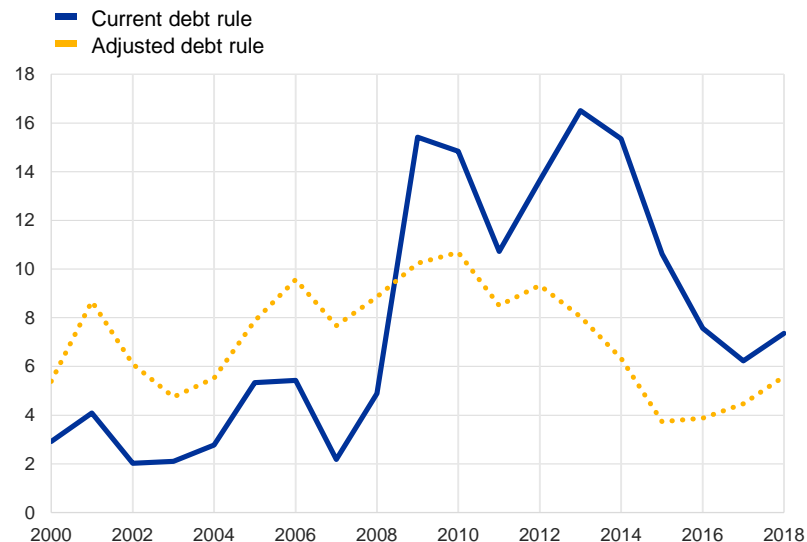Last observation: 19 February 2021.

Sustainable debt dynamics in times of low interest rates and low inflation

Government interest payments
(% of GDP)

Legend:
- Euro Area
- United States
- Japan

Source: AMECO for Euro Area; IMF – World Economic Outlook for Japan and United States.

Gap to debt rule (Italy, 2000-2018): actual versus "nominal" cyclically-adjusted

Legend:
- Current debt rule
- Adjusted debt rule

Source: Hauptmeier and Kamps (2020)

Thank you for your attention!