



EUROPEAN CENTRAL BANK

EUROSYSTEM

The ECB's policy response to the COVID-19 pandemic

University of Chicago Booth School
of Business, 18 February 2021



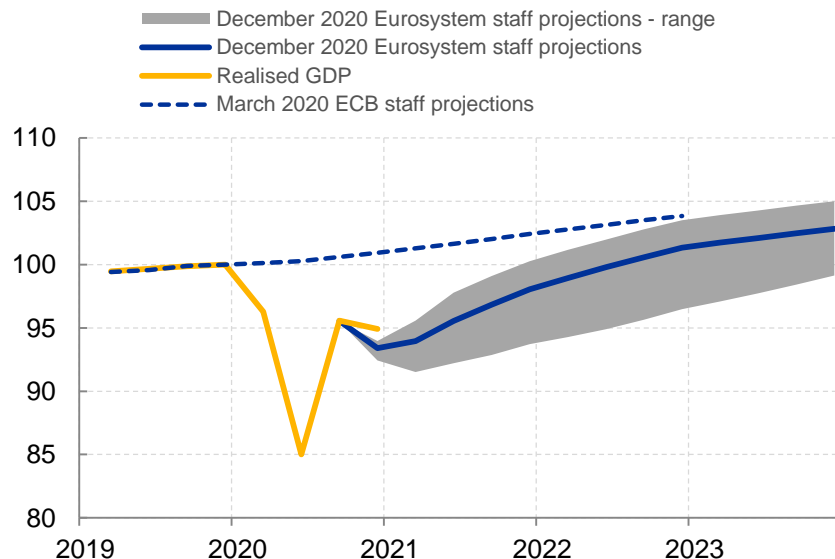
Isabel Schnabel
Member of the ECB Executive Board

Severe economic slump with long-lasting effects

Current Eurosystem staff projections

Real GDP

(index: Q4 2019 = 100)



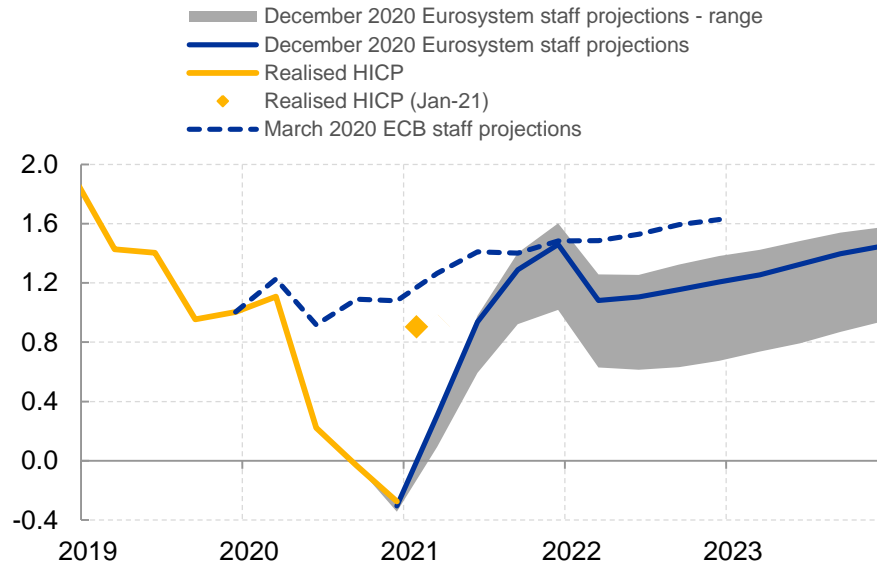
Source: ECB.

Notes: The area shaded in grey indicates the range of staff projections covering a milder and a more severe impact of the crisis.

Latest observation: Q4 2020 for realised GDP data, Q3 2020 for Eurosystem staff projections published in December 2020.

HICP inflation

(year-on-year change, %)



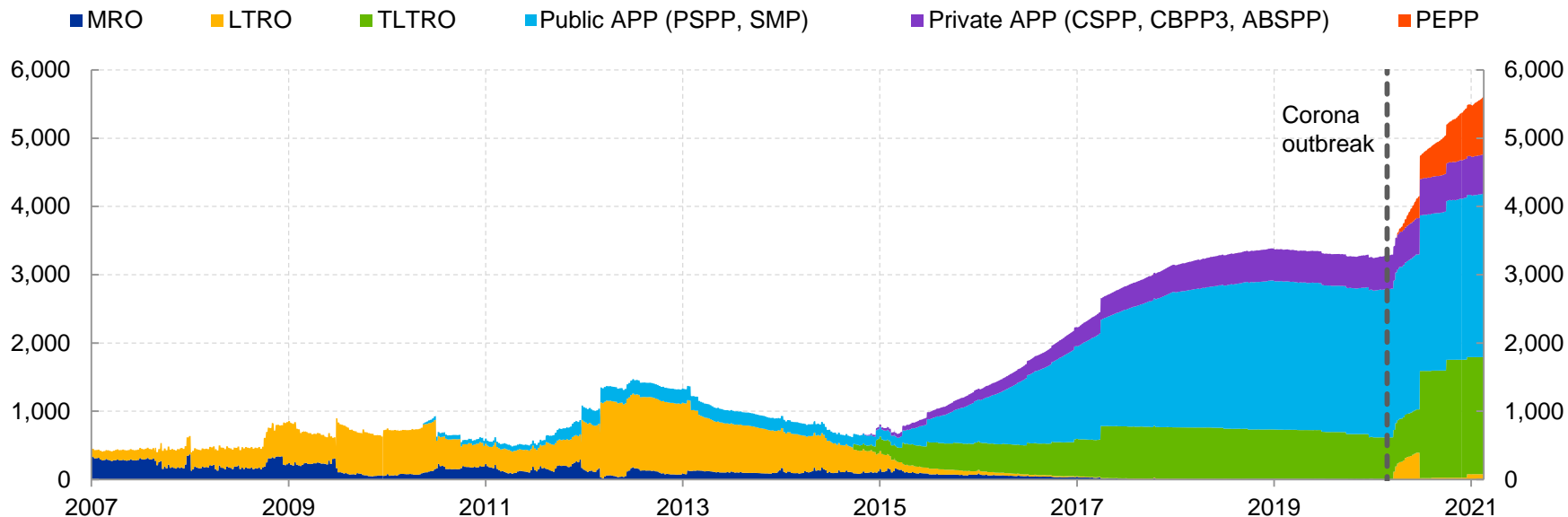
Source: ECB.

Notes: The area shaded in grey indicates the range of staff projections covering a milder and a more severe impact of the crisis.

Latest observation: Q4 2020 for quarterly data, January 2021 for monthly data (diamond).

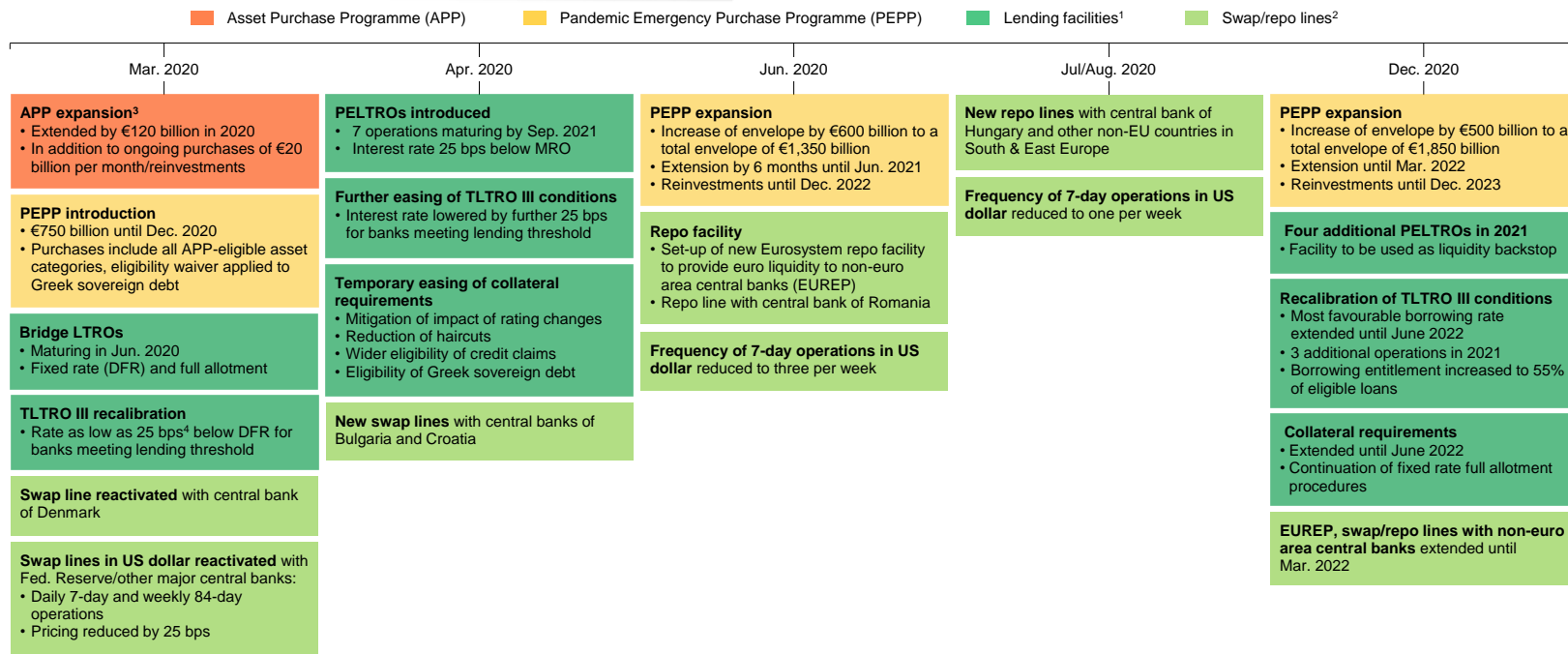
Sharp expansion of ECB balance sheet due to measures in response to the pandemic

Evolution of ECB balance sheet (€ billion)



Source: ECB, ECB calculations.
Latest observation: 15 February 2021.

Timeline of ECB monetary policy measures during the pandemic



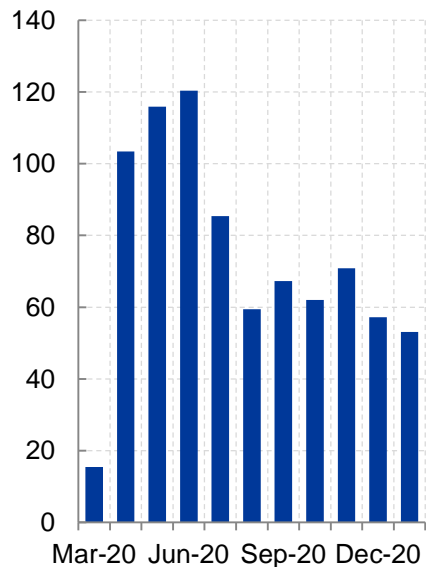
Source: ECB.

Notes:

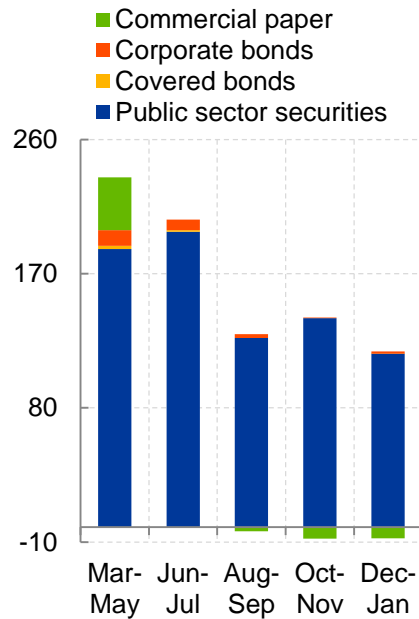
1. LTROs and PELTROs refer to the longer-term refinancing operations and pandemic emergency longer-term refinancing operations, respectively. TLTROs stands for targeted longer-term refinancing operations.
2. Under a repo line, the ECB provides euro liquidity to a non-euro area central bank in exchange for adequate euro-denominated collateral.
3. The ECB reaffirmed its forward guidance on the path of policy interest rates and the APP throughout this period. The Governing Council expects the key ECB interest rates to remain at their present or lower levels until it has seen the inflation outlook robustly converge to a level sufficiently close to, but below, 2% within its projection horizon, and such convergence has been consistently reflected in underlying inflation dynamics.
4. The term "bps" stands for "basis points".

PEPP introduced as response to the pandemic, with flexibility of purchases over time, across asset classes and among jurisdictions

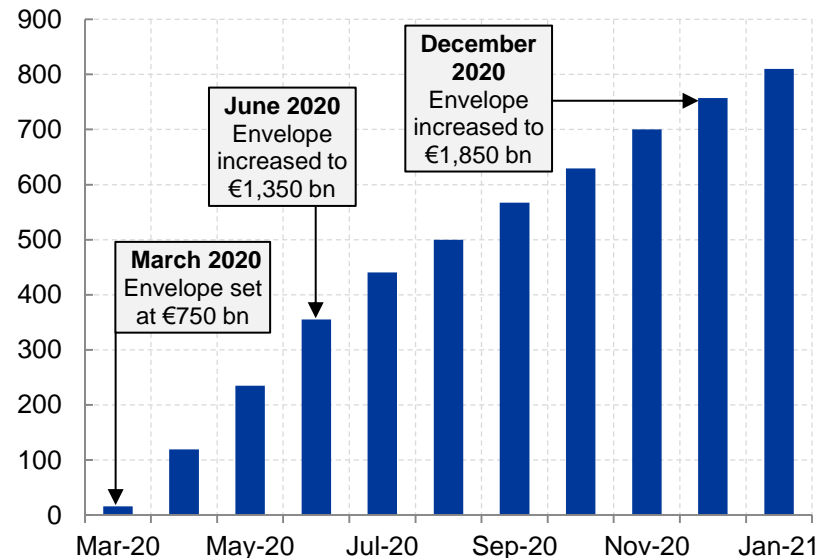
PEPP monthly net purchases and net purchases by asset class (€ billion)



Source: ECB.
Latest observation: January 2021.



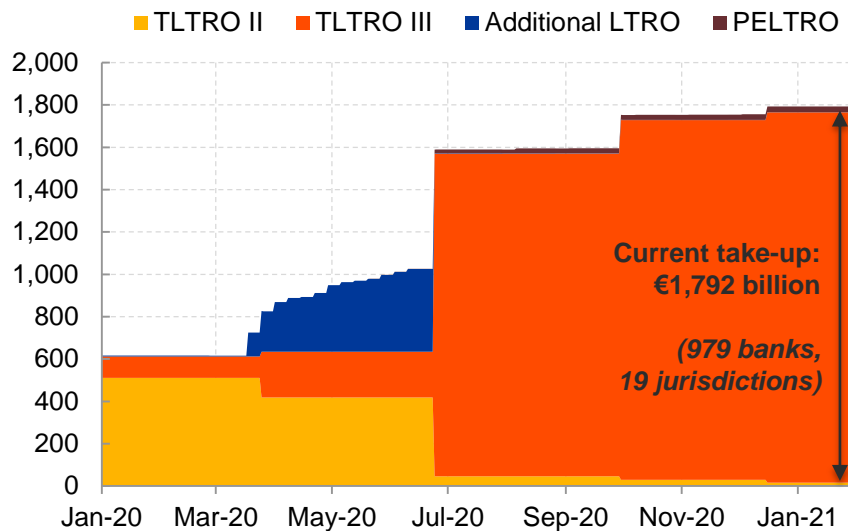
PEPP cumulative net purchases (€ billion)



Source: ECB.
Note: Cumulative monthly net purchase figures represent the difference between the acquisition cost of all purchase operations and the redeemed nominal amounts.
Latest observation: January 2021.

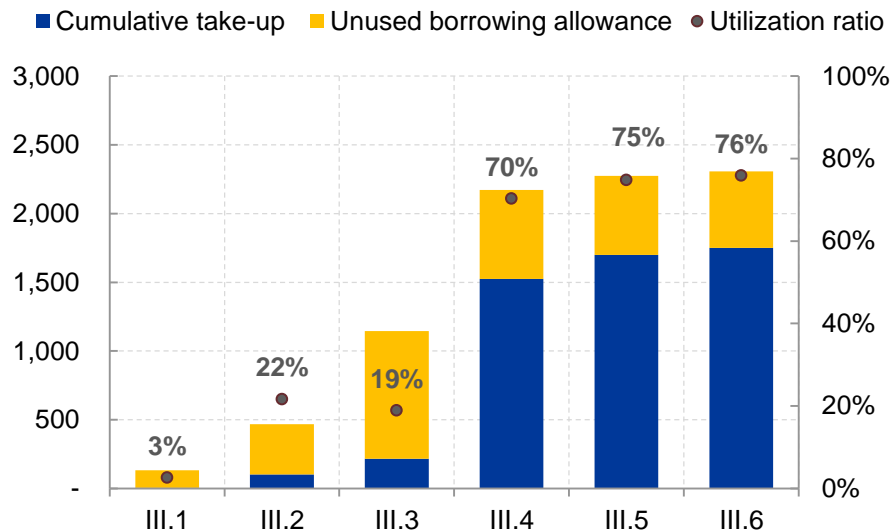
TLTRO operations designed to incentivise bank lending to NFCs and households, supporting the transmission of monetary policy to the real economy

Take-up of ECB liquidity-providing operations (€ billion)



Source: ECB.
Note: TLTRO III refers to the sum of TLTRO III.1-6.
Latest observation: 15 February 2021.

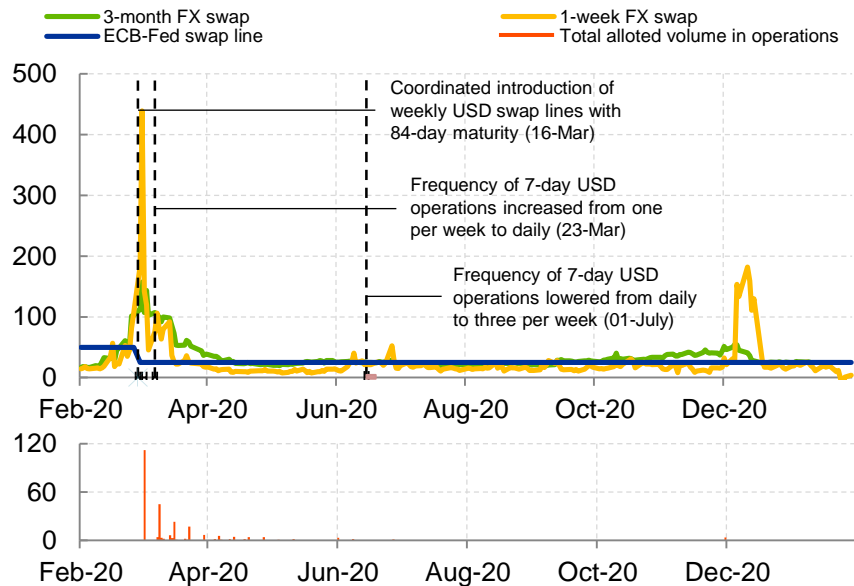
Past TLTRO III operations (left-hand scale – € billion; right-hand scale – %)



Source: ECB.
Note: Allotment dates of the respective TLTRO III operations: 9/2019 (III.1), 12/2019 (III.2), 3/2020 (III.3), 6/2020 (III.4), 9/2020 (III.5), 12/2020 (III.6). Future allotment dates: 3/2021 (III.7), 6/2021 (III.8), 9/2021 (III.9), 12/2021 (III.10).

Coordinated central bank measures (Fed, ECB, BoE, BoC, BoJ, SNB) for providing US dollar liquidity

USD funding costs during the COVID-19 crisis (upper panel – basis points; lower panel – USD billion)

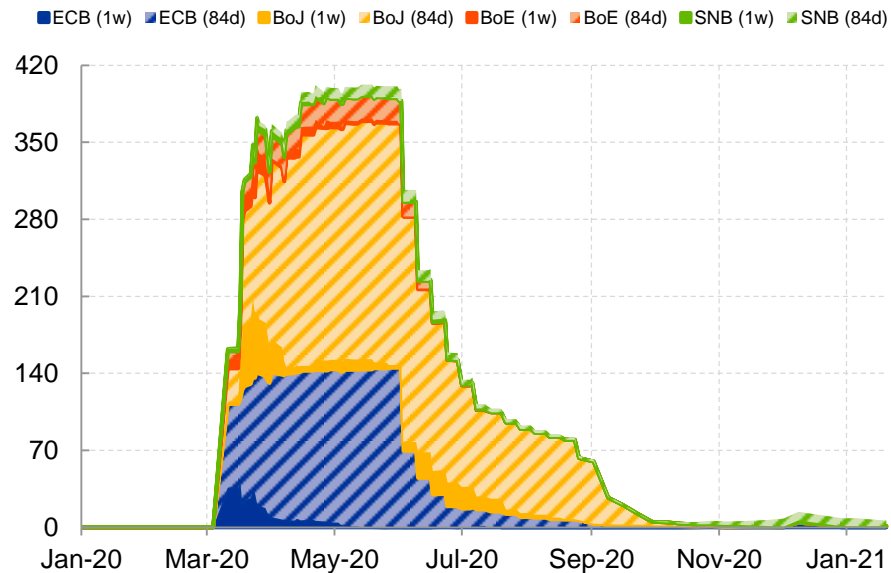


Source: MMSR, Bloomberg, ECB calculations.

Note: Spreads are calculated using transaction data expressed as a spread over the market overnight index swap (OIS) rates. Dates in brackets refer to days from which the measures were in effect.

Latest observation: 15 February 2021.

Take-up in central banks' USD operations in major jurisdictions (USD billion)

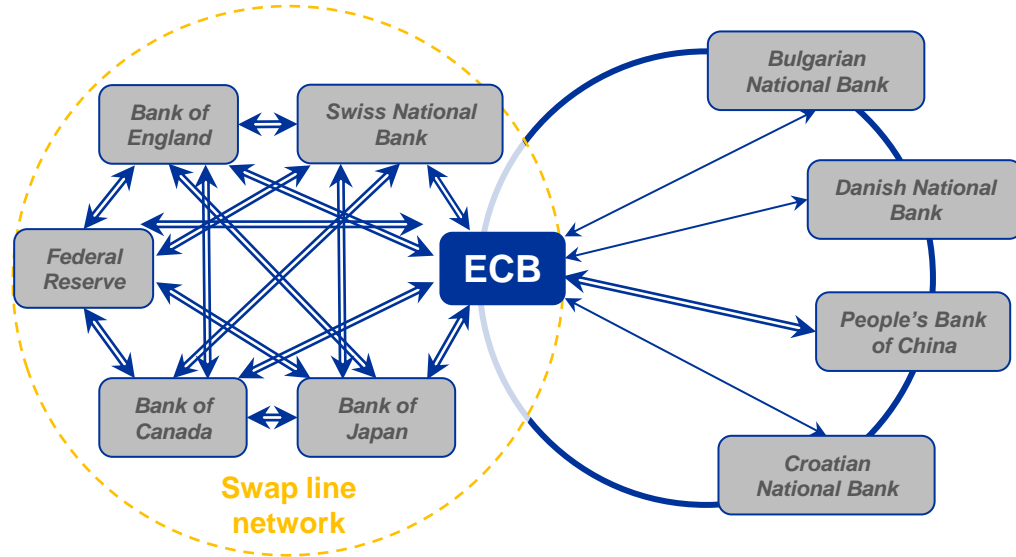


Source: Official websites of selected central banks.

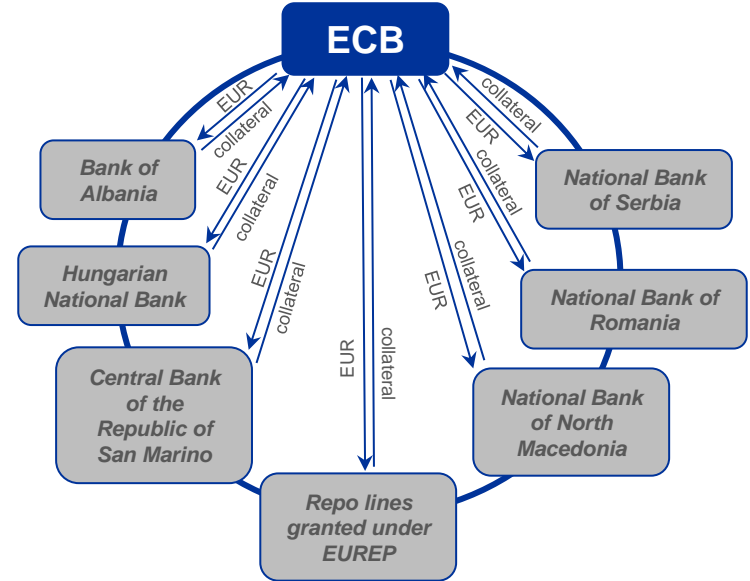
Latest observation: 11 February 2021.

Eurosystem framework for providing euro liquidity to other central banks

Overview of swap line arrangements



Overview of repo line arrangements

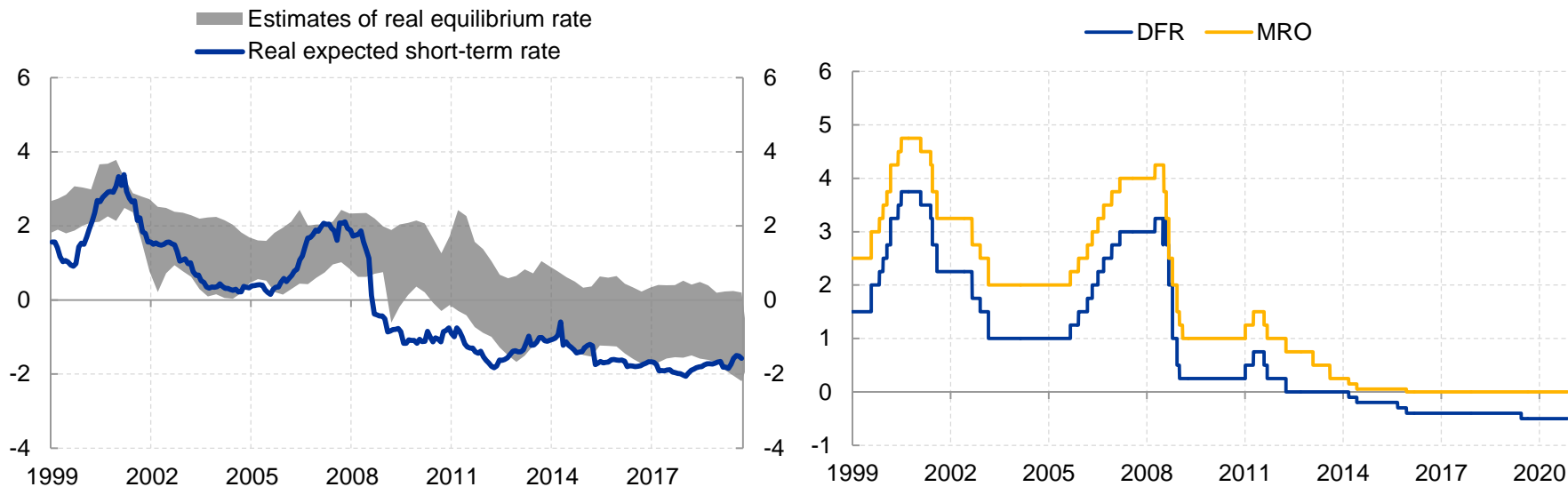


Source: ECB.

Note: Under the swap line arrangements, the ECB provides euro liquidity against currencies accepted by the ECB for swap line operations. Under the repo line arrangements, the ECB provides euro liquidity against adequate euro-denominated collateral accepted by the ECB. EUREP is the Eurosystem repo facility for central banks. The countries mentioned in the overview of the Eurosystem's repo line arrangements are only examples to illustrate the functioning of these types of agreements. A double line in the swap lines overview indicates that the agreement is reciprocal.

Long-term decline in real equilibrium interest rate in the euro area makes unconventional monetary policy a suitable instrument

Real interest rate, model-based estimates of the real equilibrium rate and policy rates in the euro area (%)

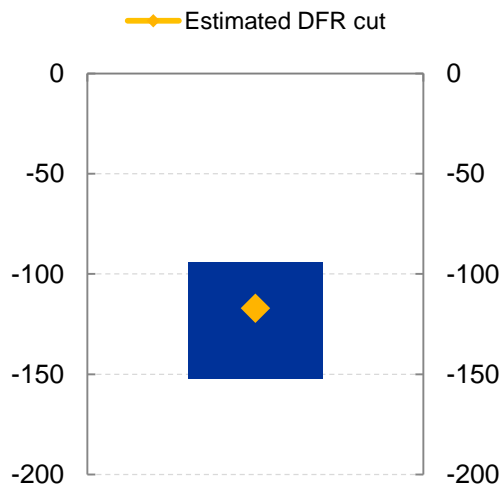


Source: "The natural rate of interest: estimates, drivers, and challenges to monetary policy", ECB Occasional Paper, No 217. Updates: Ajevskis (2018), Brand, Goy, Lemke (2020), Brand, Mazelis (2019), Fiorentini, Galesi, Pérez-Quirós, Sentana (2018), Holston, Laubach, Williams (2017), Jarocinski (2017).

Notes: The range of estimates includes point estimates from several models and therefore reflects model uncertainty, but no other source of uncertainty. The real expected short-term rate is based on the difference between EONIA and consensus inflation expectations for the subsequent calendar year.

Further policy rate cuts would have intensified distributional effects between net borrowers and net savers

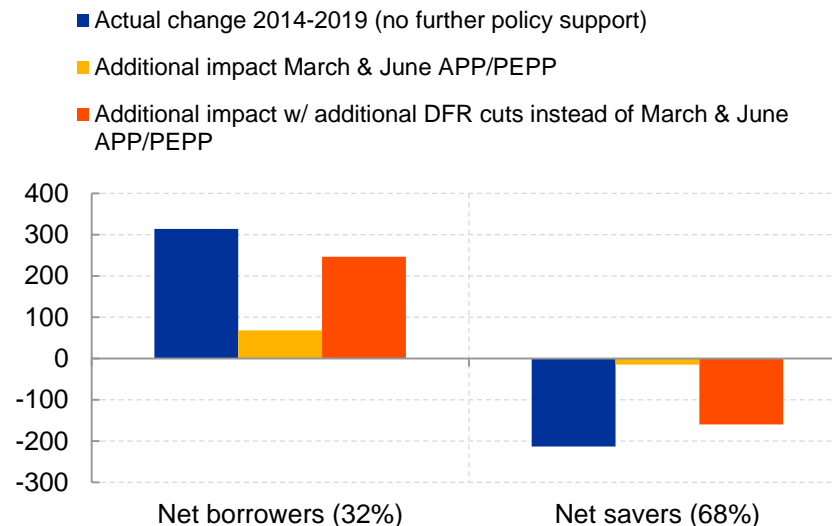
Asset purchases vs. interest rate cuts: estimated required interest rate change (basis points)



Source: ECB.

Note: the chart shows the necessary decrease in overnight interest rates to achieve the same effect on inflation as APP/PEPP asset purchases of €1.47 billion (PEPP volume increase of December 2020 not included). The blue surface shows the range of estimates across several models. The yellow diamond shows the median.

Estimated change in annual interest receipts/expenditures for net borrowers/savers (€ per household)

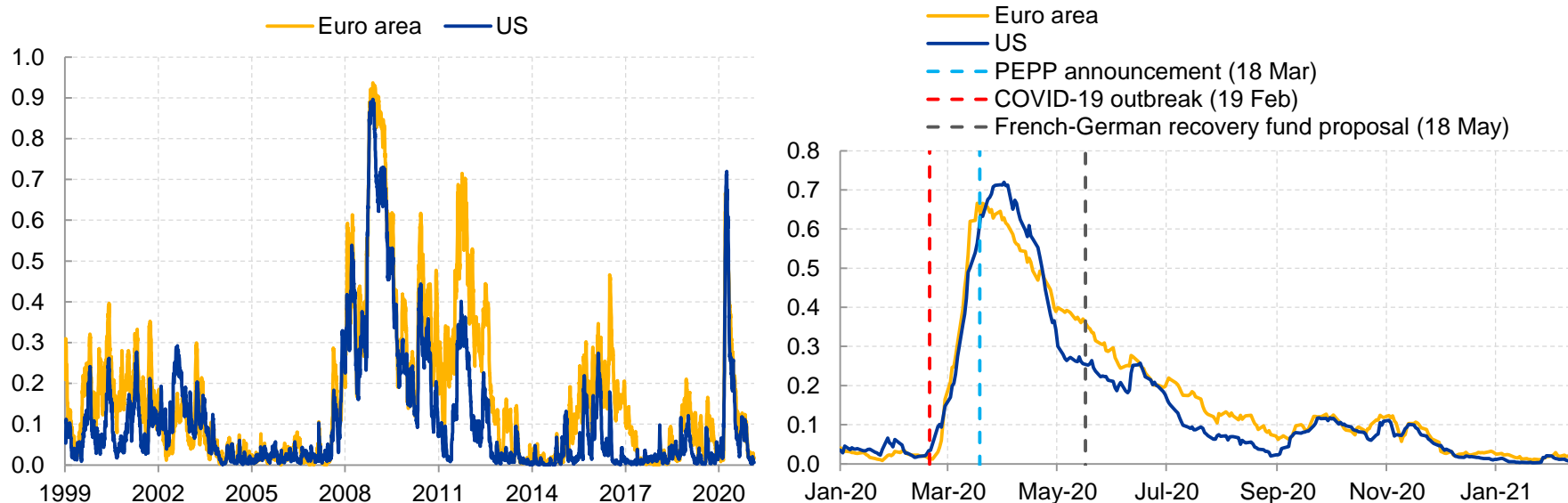


Source: Dossche, Hartwig and Pierluigi (2020), mimeo.

Note: "Net borrower" refers to household with negative net financial asset positions. "Net saver" refers to household with positive net financial asset position. Percentages on the horizontal axis indicate share of the respective households in total households.

Monetary policy measures have prevented a severe financial crisis

Indicator of systemic stress in financial markets (CISS) (index)



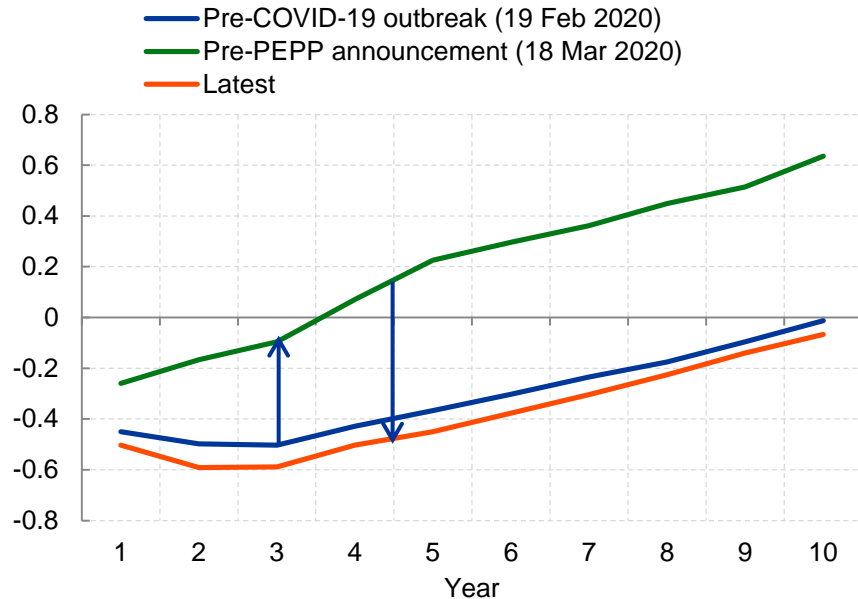
Source: ECB Working Paper No. 1426.

Notes: CISS stands for Composite Indicator of Systemic Stress (0 = no stress, 1 = high stress). The indicator aggregates stress signals from money, bond, equity and foreign exchange markets.

Latest observation: 15 February 2021.

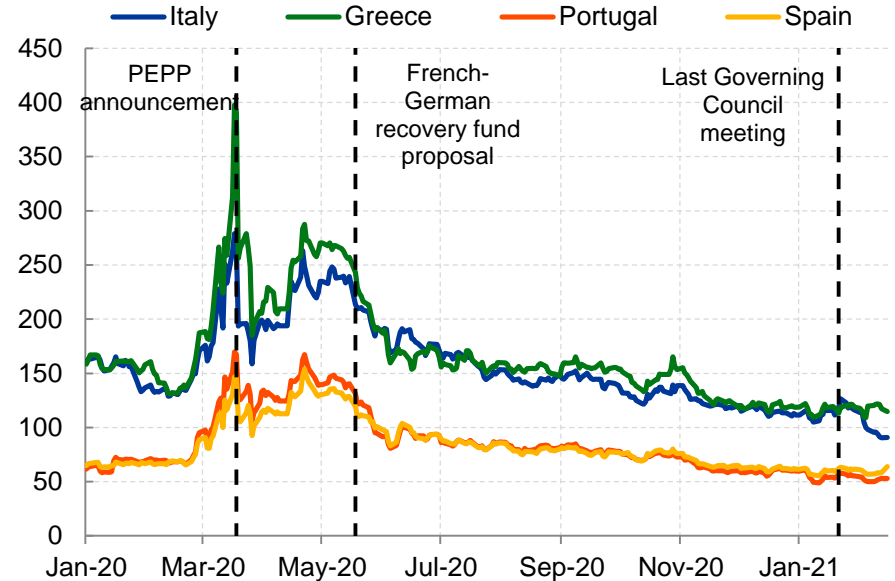
Decreasing yields in sovereign debt markets, reduced risk of fragmentation in the euro area

GDP-weighted yield curve in the euro area (%)



Source: Bloomberg, ECB.
Latest observation: 15 February 2021.

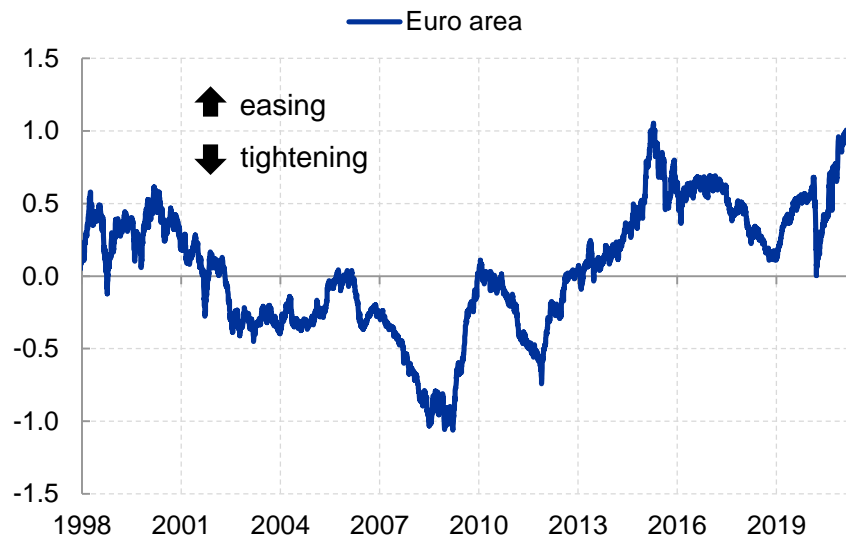
10-year yield spreads of selected government bonds over German equivalents (basis points)



Source: Bloomberg.
Latest observation: 15 February 2021.

Easing of financial conditions, strong loan growth in the euro area

Financial condition index for the euro area (index)

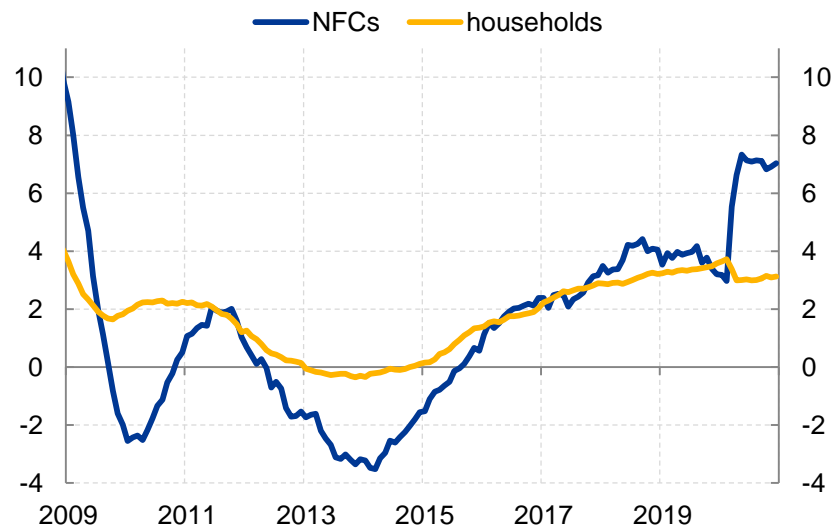


Source: Refinitiv Datastream, ECB staff calculations.

Notes: Financial condition index is computed as a weighted average of five daily financial indicators (spreads, equity prices, short and long rates, exchange rates). Euro area aggregate is the average of Germany, Italy, France and Spain.

Latest observation: 15 February 2021.

Loan growth in the euro area (year-on-year growth rate, %)



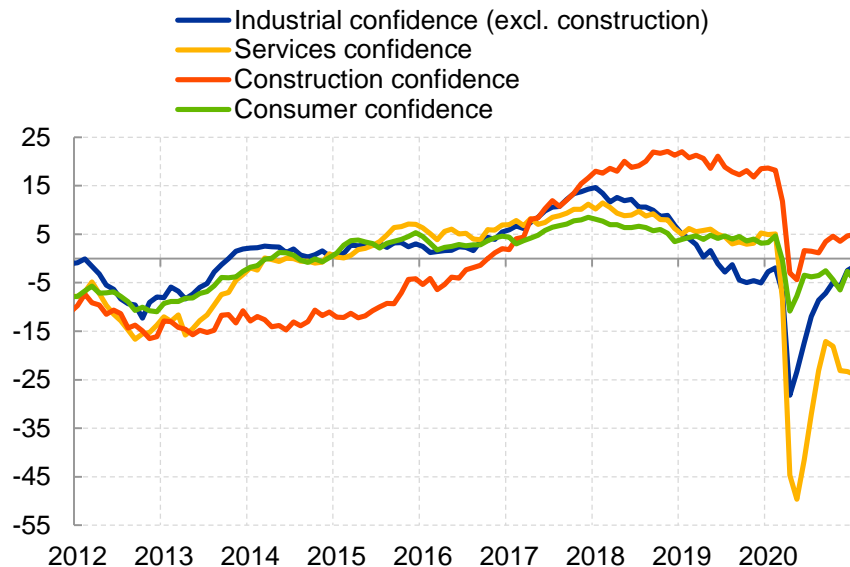
Source: Dealogic.

Note: Annual growth rates of loans are adjusted for sales, securitization and cash pooling activities.

Latest observation: December 2020.

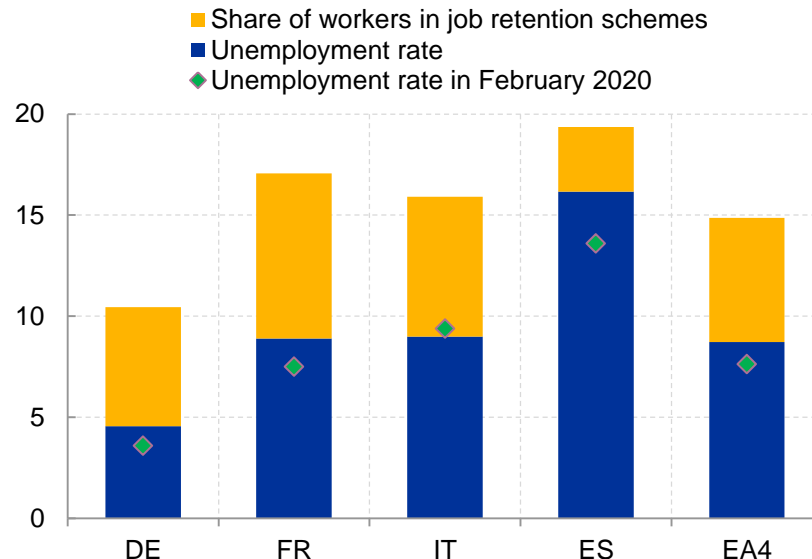
Signs of economic recovery with sectoral heterogeneity, beneficial effects of fiscal measures on the labour market

Confidence indicators in the euro area by sector
(mean-adjusted)



Source: DG ECFIN, ECB calculations.
Latest observation: January 2021.

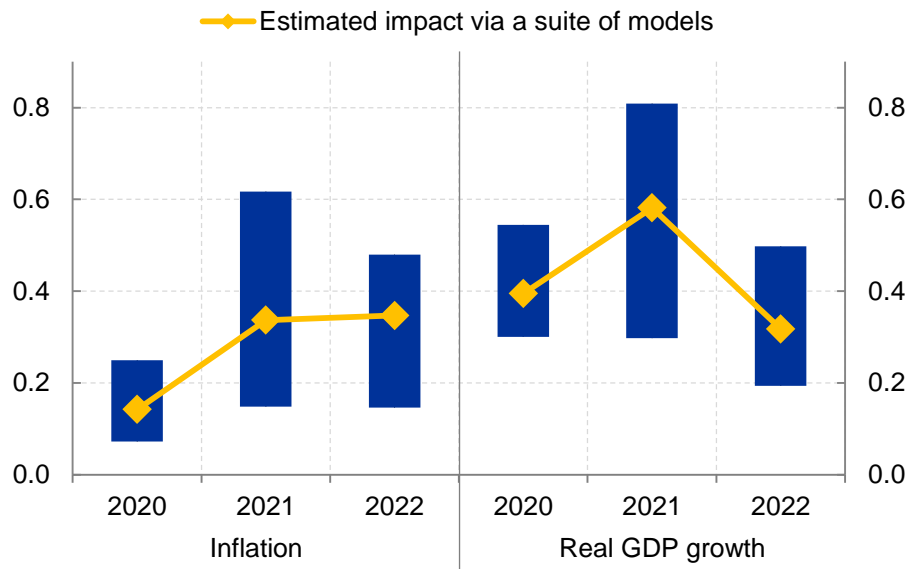
Unemployment rate and effect of short-time work schemes (%)



Source: Eurostat, Bundesagentur für Arbeit, ifo Institut, Ministère du Travail, de L'Emploi et de L'Insertion, INPS, Ministerio de Inclusión, Seguridad Social y Migraciones, ECB calculations.
Latest observation: January 2021: Kurzarbeit, Cassa Integrazione and ERTE; December 2020: Chômage Partiel, unemployment rate.

Noticeable impact of monetary policy measures on inflation and economic growth, higher effectiveness of fiscal policy at effective lower bound

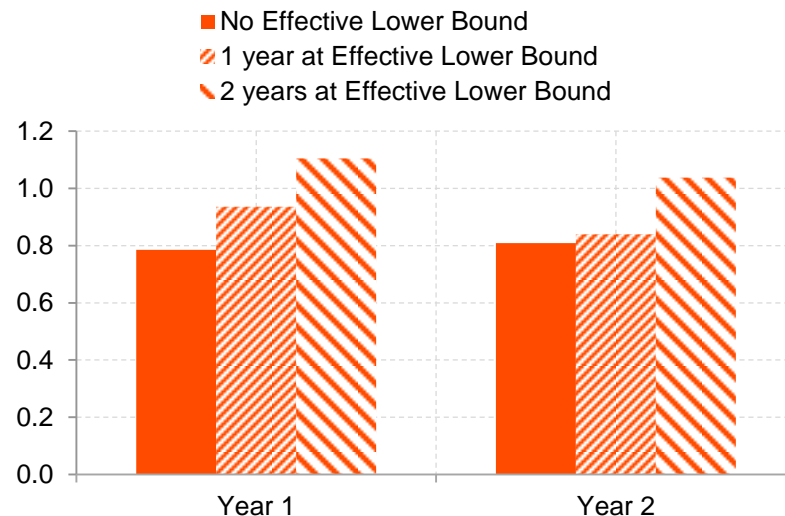
Estimated impact of the monetary policy measures taken since March 2020 (percentage points)



Source: ECB.

Notes: The chart shows the average of estimates from various models. The measures include the PEPP, the TLTRO III and the increase in the APP of €120 billion. The analysis refers to the estimated impact of the APP, PEPP, and TLTRO decisions in March, April and June 2020. The chart does not include the impact of the December 2020 monetary policy decision.

Fiscal multipliers (%)

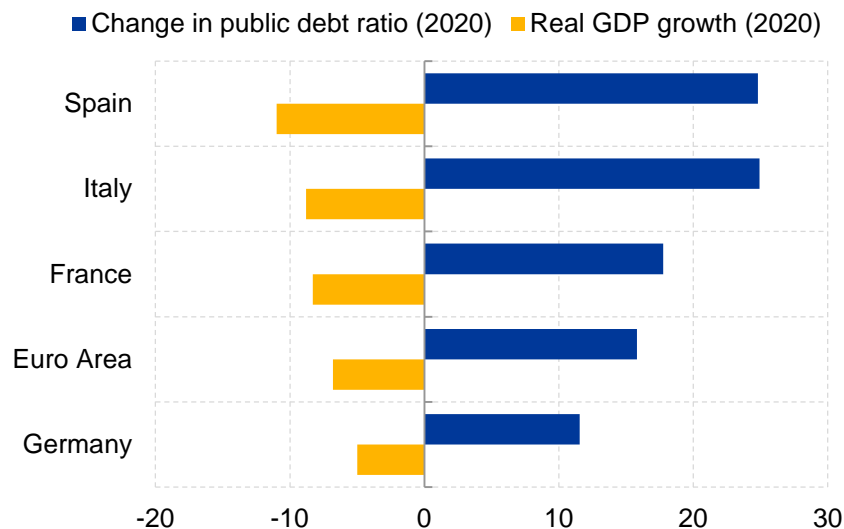


Source: ECB.

Notes: Measured in % deviation from steady state levels. The assumed shock is an increase of the government consumption-to-GDP ratio by 1 percentage point. Model simulation based on New Area Wide Model with a range of fiscal instruments, see: Coenen et al. (2008), "Tax reform and labour-market performance in the euro area: A simulation-based analysis using the New Area-Wide Model", *Journal of Economic Dynamics and Control*, Vol. 32 I. 8, pp. 2543-2583.

EU fiscal measures reducing risk of economic divergence, broadly stable bond free float in the euro area

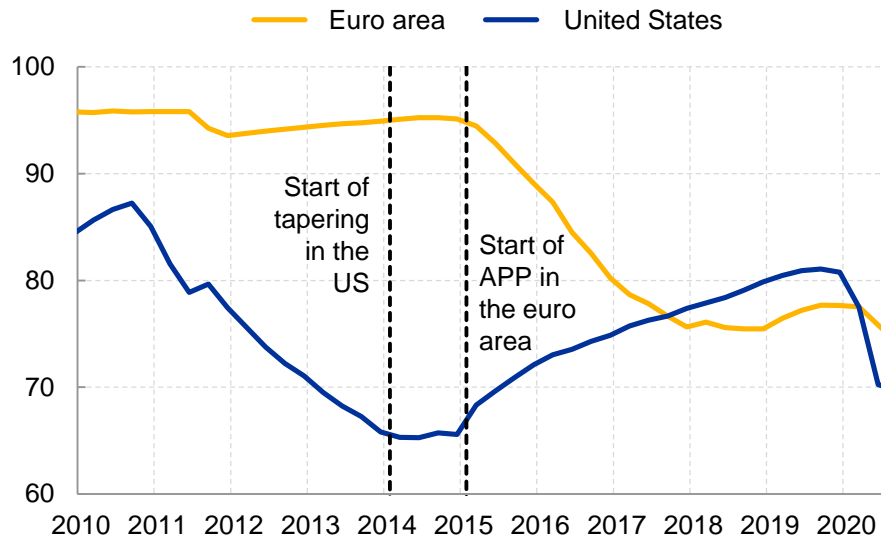
Real GDP growth and change in public debt ratio in 2020 (% , percentage points)



Source: European Commission.

Notes: Real GDP growth rates are based on the European Commission's Winter 2021 Economic Forecast (released on 11 February 2021). Changes in public debt ratios are based on the European Commission's Autumn 2020 Economic Forecast.

Evolution of bond free float (%)

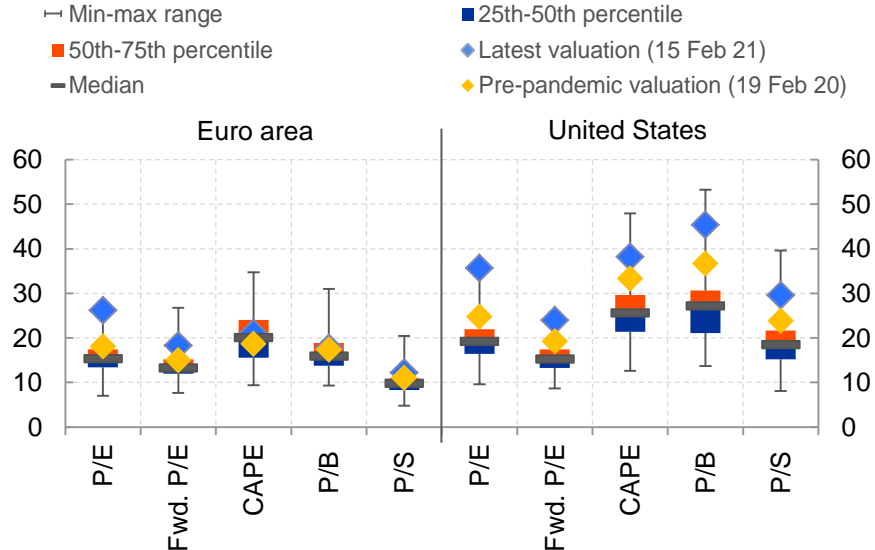


Source: SHS, ECB, ECB calculations.

Notes: The free float measure is defined as the ten-year equivalent holdings of general government bonds by all investors other than the domestic central bank as a share of the total supply. The bond free float for the euro area refers to the big-4 (Germany, France, Italy and Spain). Latest observation: Q4 2020.

Fewer signs of overvaluation in euro area equity markets than in US

Accounting-based equity valuation metrics, total market (distributions since 1985, ratio)

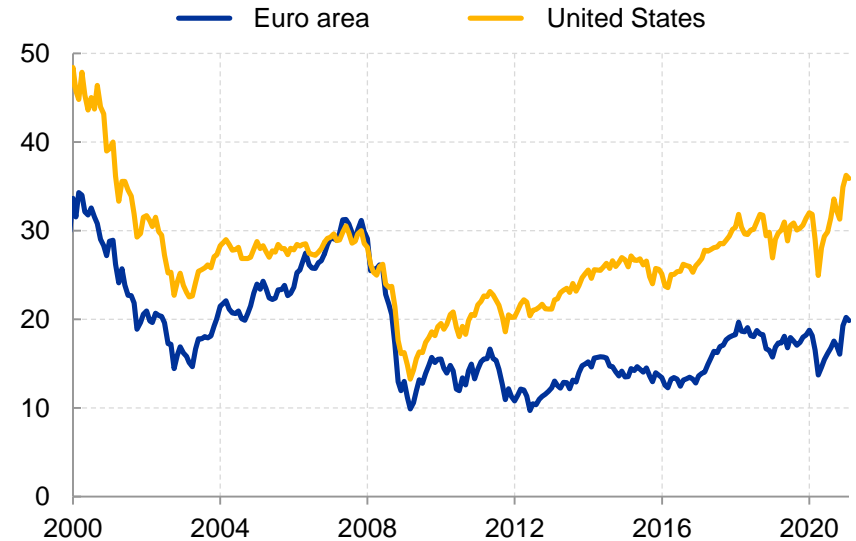


Sources: Thomson Reuters, ECB calculations.

Notes: Valuation metrics are recorded at monthly intervals since 1985, except for the forward looking price-to-earnings (P/E) ratio for the euro area, which is available since 1989. The price-to-book ratio (P/B) and the price-to-sales ratio (P/S) has been multiplied by a factor of 10. Blue and red bars denote the 25th – 50th and 50th – 75th percentiles, respectively.

Latest observation: 15 February 2021.

US and EA Cyclically Adjusted Price-to-Earnings (CAPE) (ratio)



Sources: Refinitiv and ECB calculations.

Notes: The Cyclically Adjusted Price-to-Earnings (CAPE) ratio is the inflation-adjusted value of an equity index divided by the real earnings of the constituent companies averaged over the last 10 years.

Latest observation: January 2021 (monthly data).

Thank you for your attention!