



EUROPEAN CENTRAL BANK

EUROSYSTEM

Monetary and financial stability – can they be separated?

Isabel Schnabel

Member of the Executive Board
of the European Central Bank



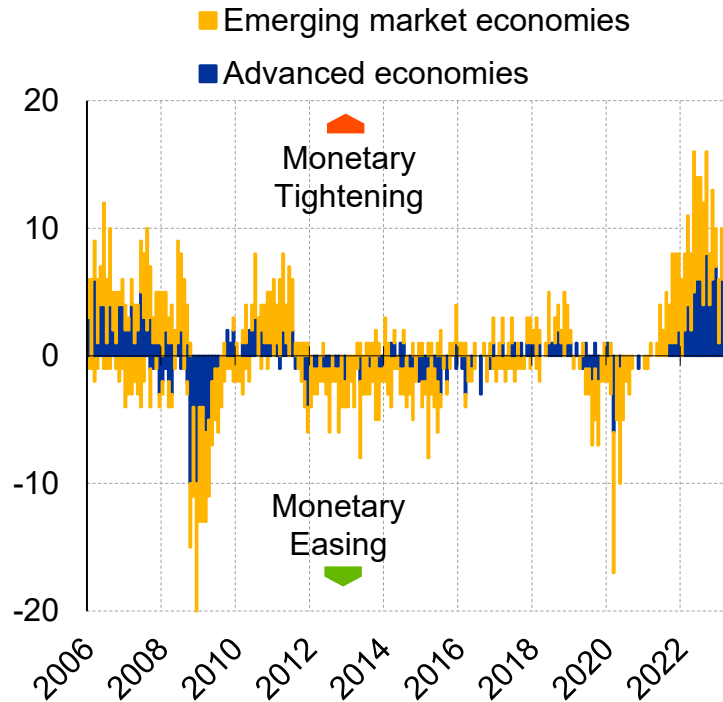
19 May 2023

Conference on Financial Stability and Monetary policy in the honour of
Charles Goodhart, Financial markets Group, London School of Economics

Synchronised tightening across economies amid unprecedented pace of rate hikes

Global interest rate cycle

(number of central bank hikes)



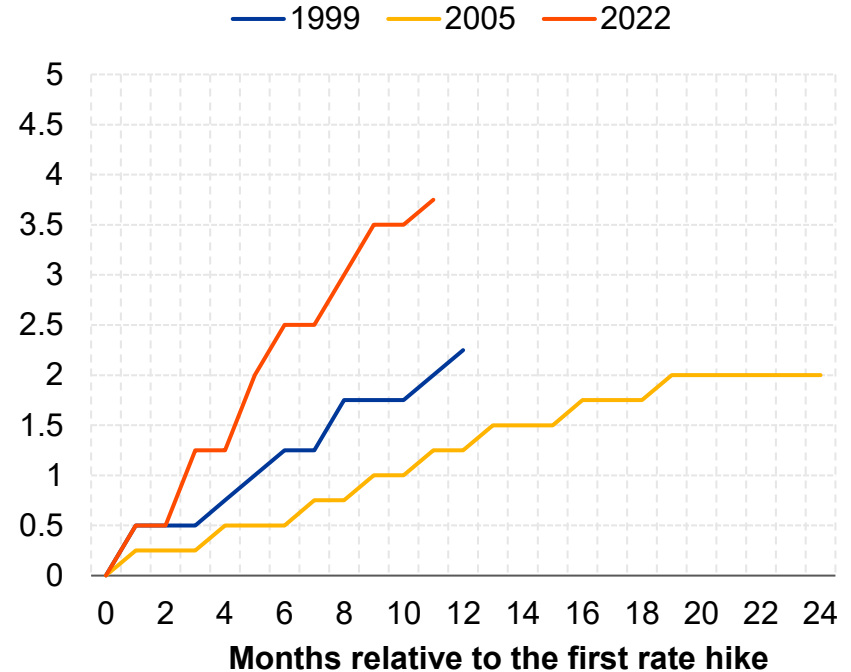
Sources: Haver Analytics and ECB calculations.

Notes: Sample consist of 10 advanced and 14 emerging market economies.

Latest observation: April 2023.

ECB hiking cycles

(main refinancing operations or deposit facility rates in percent)



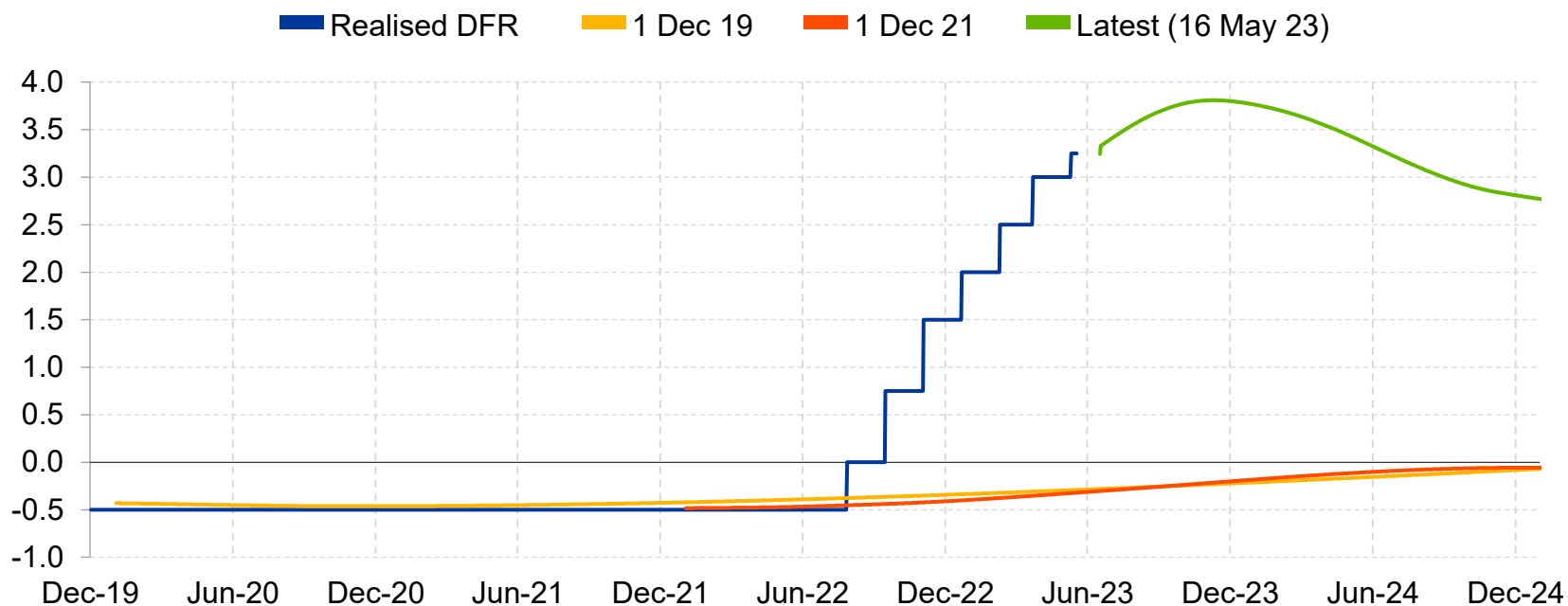
Sources: ECB.

Notes: On the x-axis, 0 denotes the month before the first rate hike. Rates refer to the main refinancing operations rate for 1999 and 2005, and to the deposit facility rate for 2022.

Rapid hiking cycle has caught market participants by surprise

Euro nominal forward OIS curve

(percent)



Sources: Bloomberg, ECB calculations

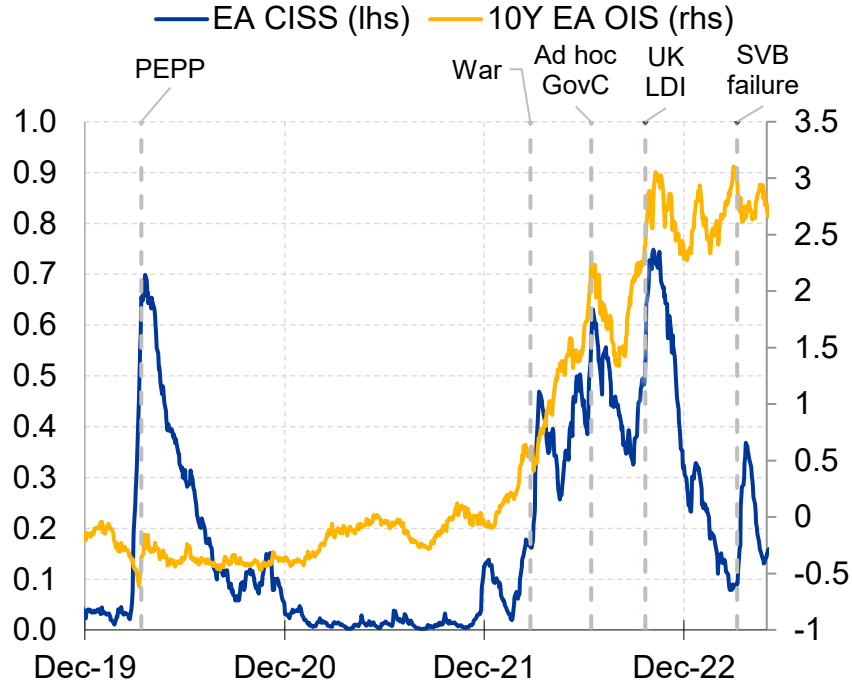
Notes: Chart refers to realised and forward deposit facility rate (DFR) levels.

Latest observation: 16 May 2023.

Rise in financial stress amid heightened bond market volatility

Composite Indicator of Systemic Stress (CISS) for the euro area and 10-year EA OIS

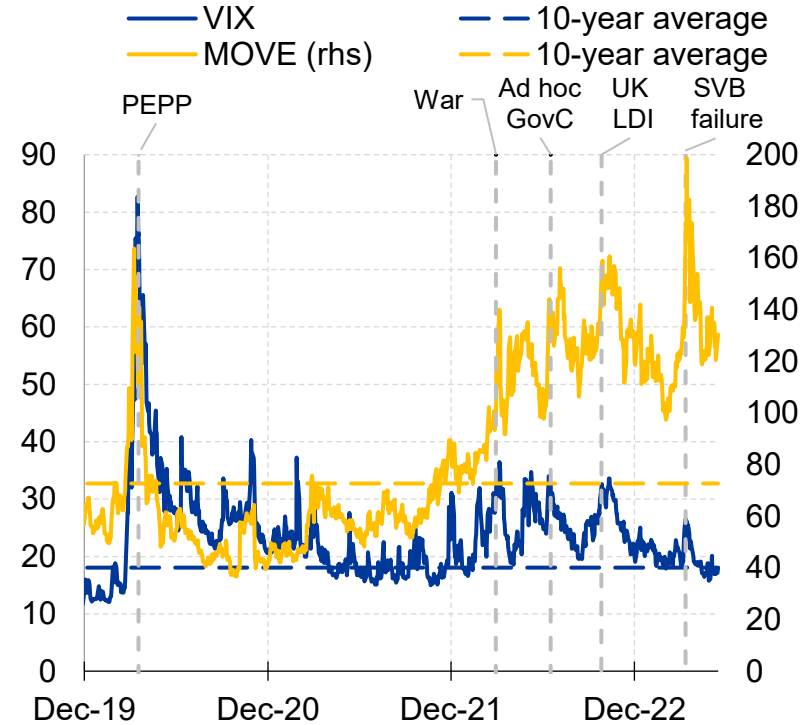
(lhs: 0 = no stress, 1 = high stress; rhs: percent)



Sources: Bloomberg and ECB.
Last observation: 16 May 2023.

Option-implied volatility

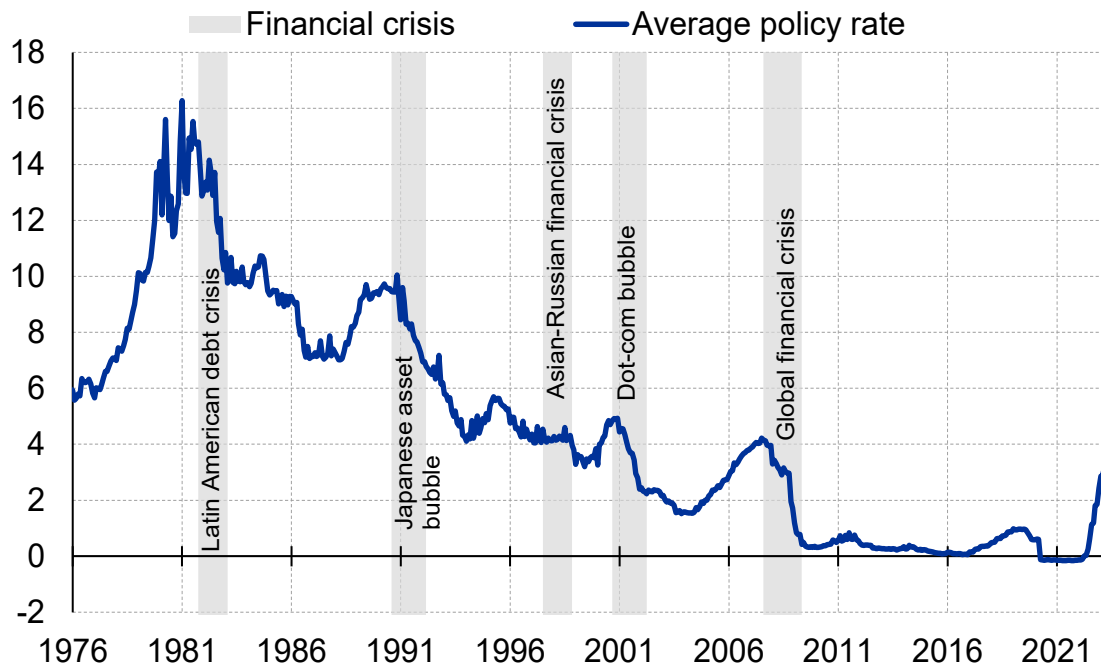
(lhs: percentage points; rhs: basis points)



Sources: Bloomberg and ECB calculations.
Last observation: 16 May 2023.

Historical global hiking cycles have often coincided with financial distress

Average policy rate across advanced economies (percent)



Sources: Bloomberg, OECD economic outlook and ECB calculations.

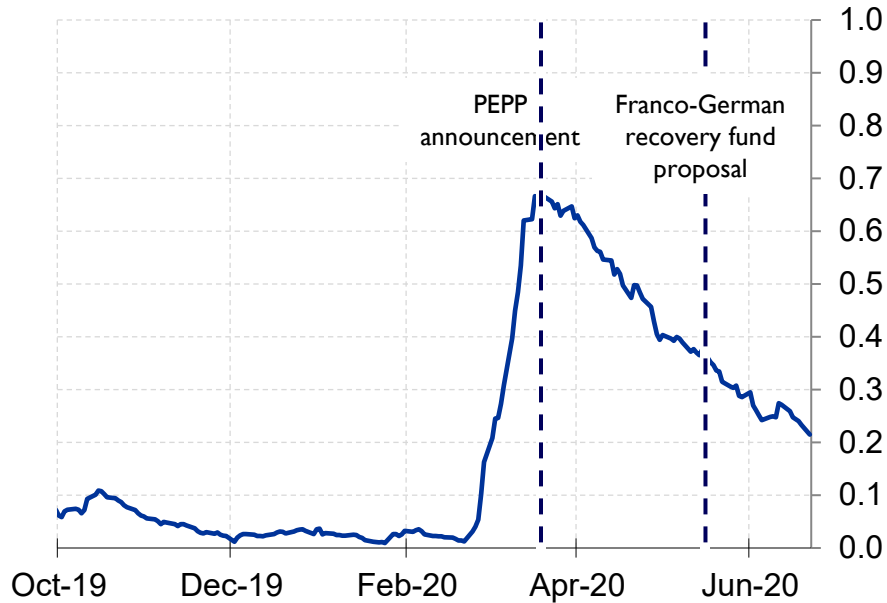
Notes: The average policy rate corresponds to the GDP-weighted average of individual overnight benchmark rates for each country. Sample consists of 10 advanced market economies. For early data, overnight rates are extrapolated using adjusted short-term interest rate provided by the OECD. For the pre-euro period, EA yield is computed as the average of the rates of Germany, France, Italy and Spain.

Latest observation: 15 May 2023.

No need for separation under PEPP due to deflationary shock

Composite Indicator of Systemic Stress (CISS) in the euro area

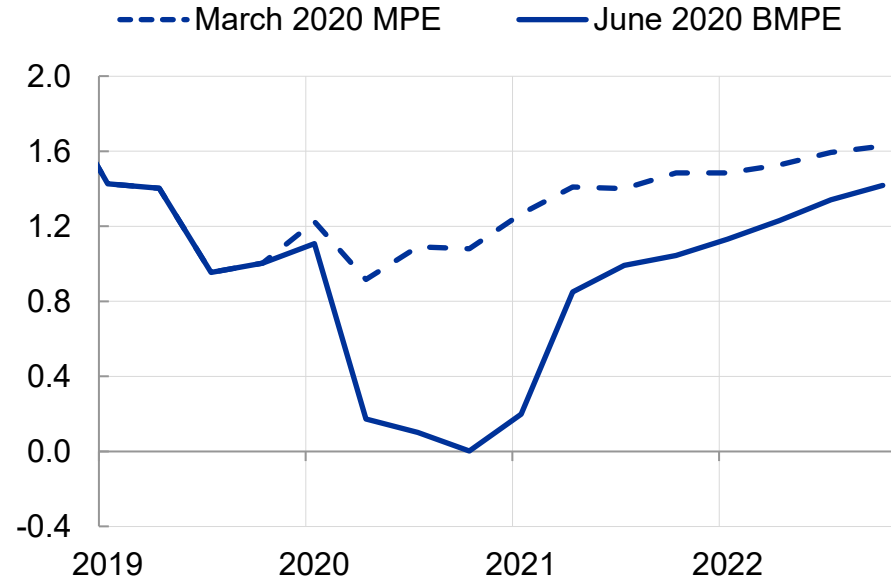
(0 = no stress, 1 = high stress)



Sources: ECB.

Inflation projections for the euro area in 2020

(annual percentage changes, quarterly data)

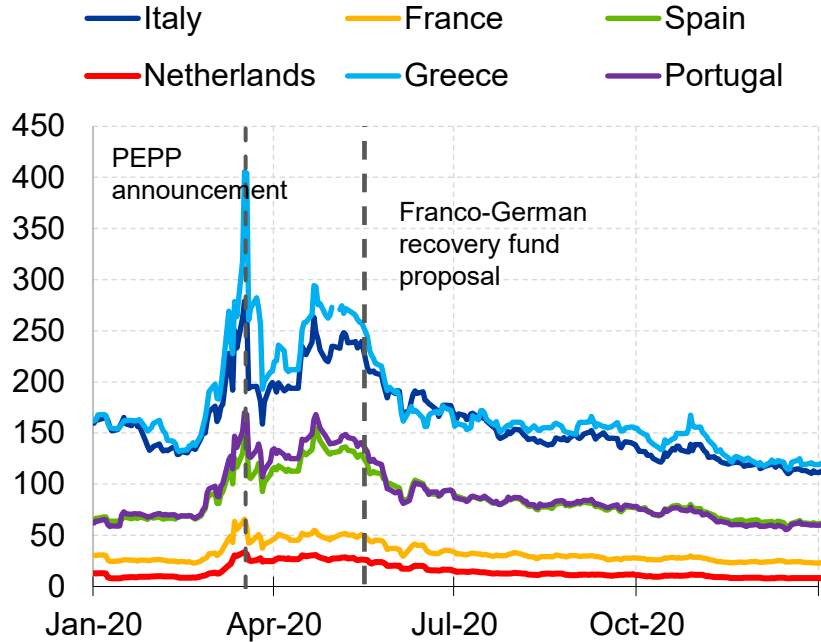


Sources: Eurostat, ECB and Eurosystem.

PEPP flexibility protected monetary policy transmission but was used only briefly

10-year euro area sovereign spreads versus Germany

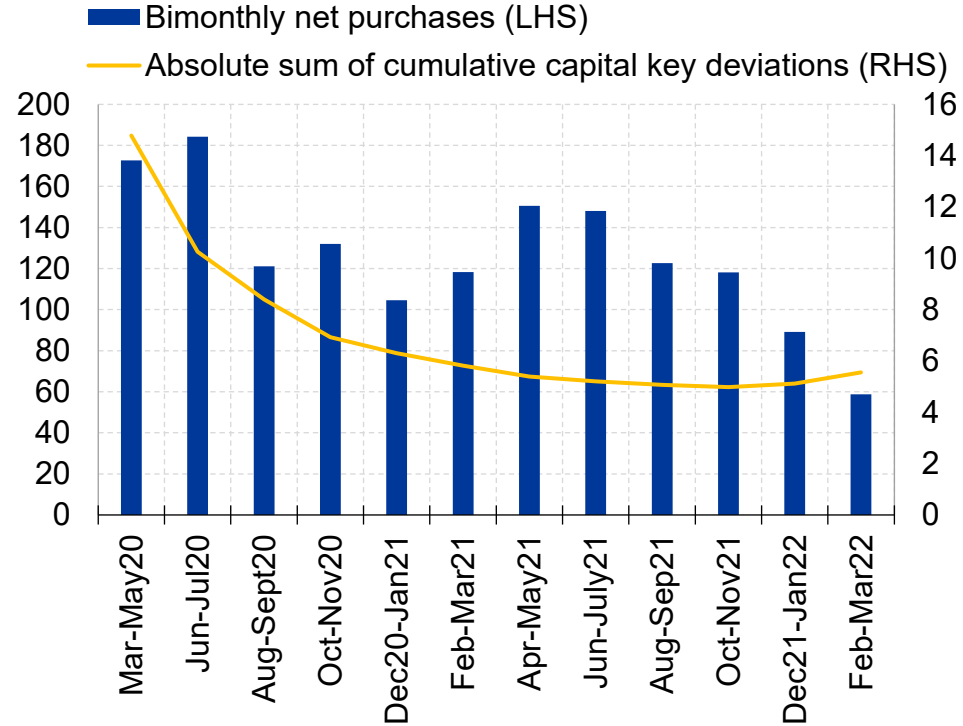
(basis points)



Sources: Bloomberg.
Latest observation: 31 Dec 2020.

PEPP public sector purchases and capital key deviations

(lhs: EUR bn, rhs: percentage points)

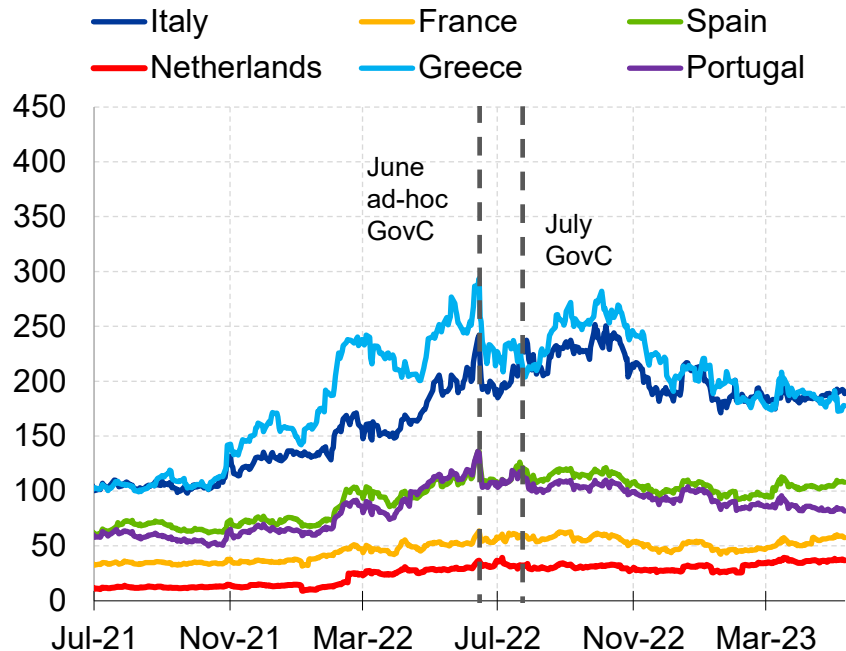


Sources: ECB website, ECB calculations.
Notes: Bars show PEPP public sector net purchases excluding supranational bonds.

Ensuring smooth transmission via TPI was a precondition for price stability

10-year euro area sovereign spreads versus Germany

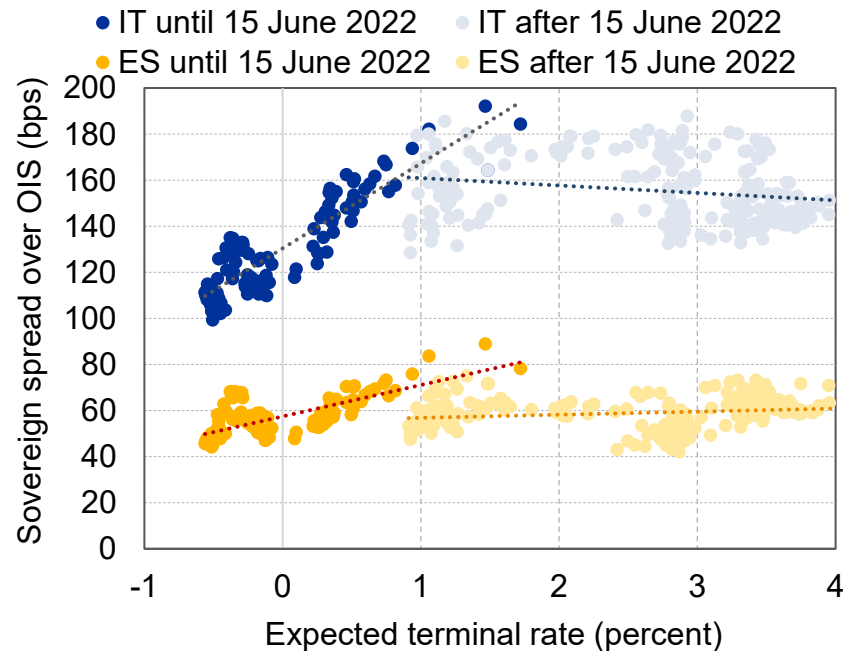
(basis points)



Sources: Bloomberg.
Latest observation: 16 May 2023.

Sensitivity of sovereign spreads to risk-free rate expectations

(basis points)

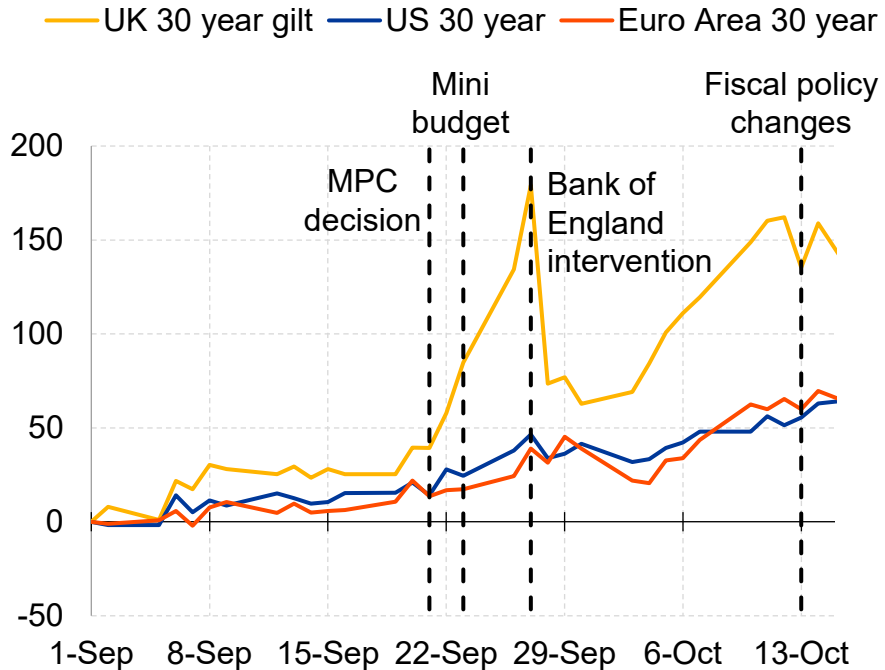


Sources: Bloomberg and ECB calculations. The chart shows the relationship between the spread of selected sovereign 10-year benchmarks over the 10-year EA OIS rate (y-axis) versus the outright level of the ESTR OIS forward covering the 3rd ECB maintenance period from today (%). The chart differentiates between the period from start of 2022 until 15 June 2022 (ECB announcement on activation of PEPP flexibility and work on anti-fragmentation instrument) and the period thereafter. Latest observation: 16 May 2023.

Targeted and temporary response to LDI event avoided interference with price stability

30-year government bond yields

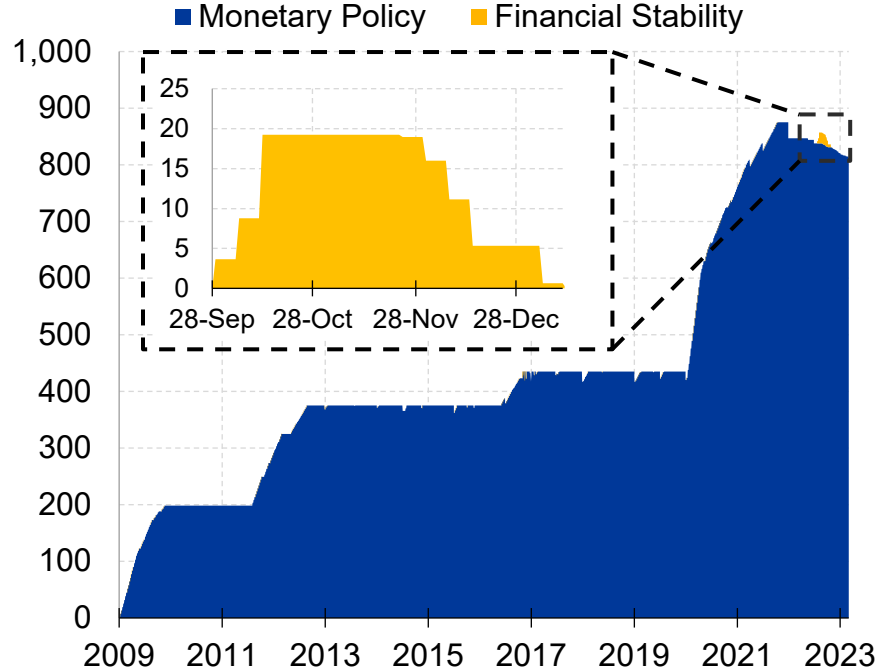
(basis points)



Source: Bloomberg.
Latest observation: 15 October 2022.

BoE's UK government bond holdings: monetary policy vs. financial stability programmes

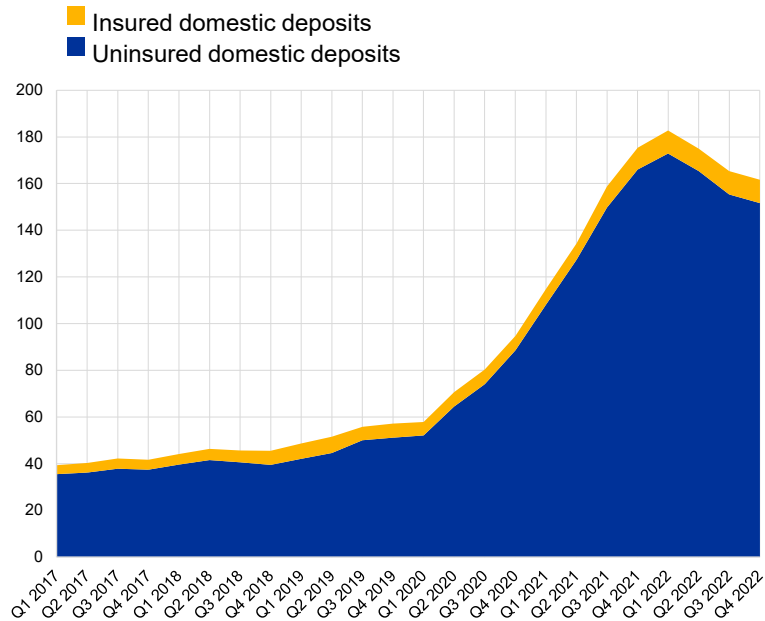
(GBP billion)



Sources: Bank of England (BoE) and Bloomberg.
Notes: Monetary policy holdings and financial stability holdings are valued at initial purchase price. The chart is built using weekly data.
Latest observation: 10 May 2023.

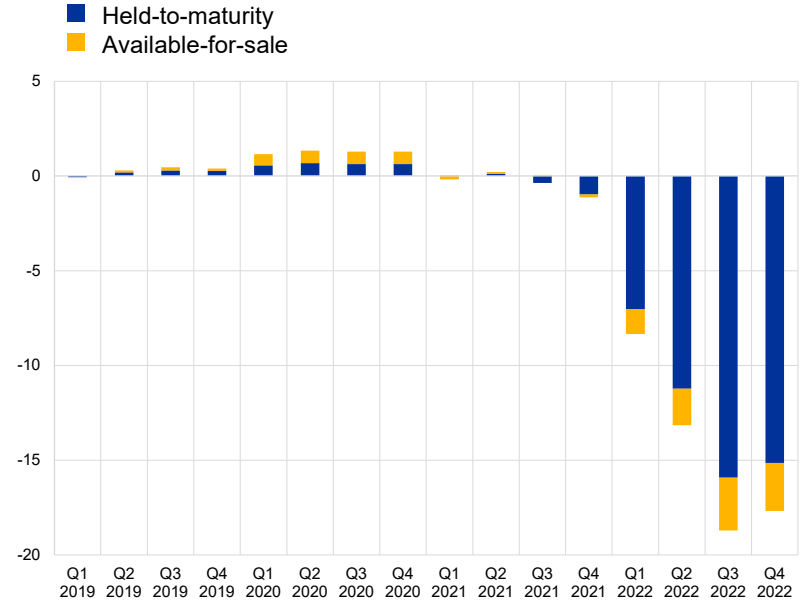
SVB suffered from flighty deposits and high unrealised losses

SVB deposits according to insurance coverage (USD billion)



Sources: Call Reports and ECB calculations.

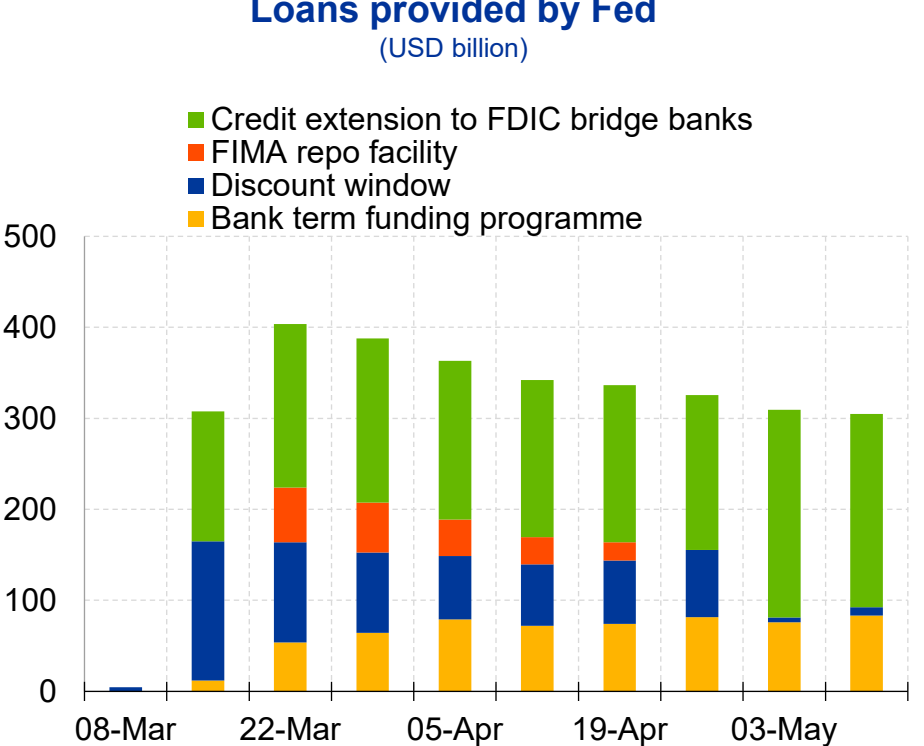
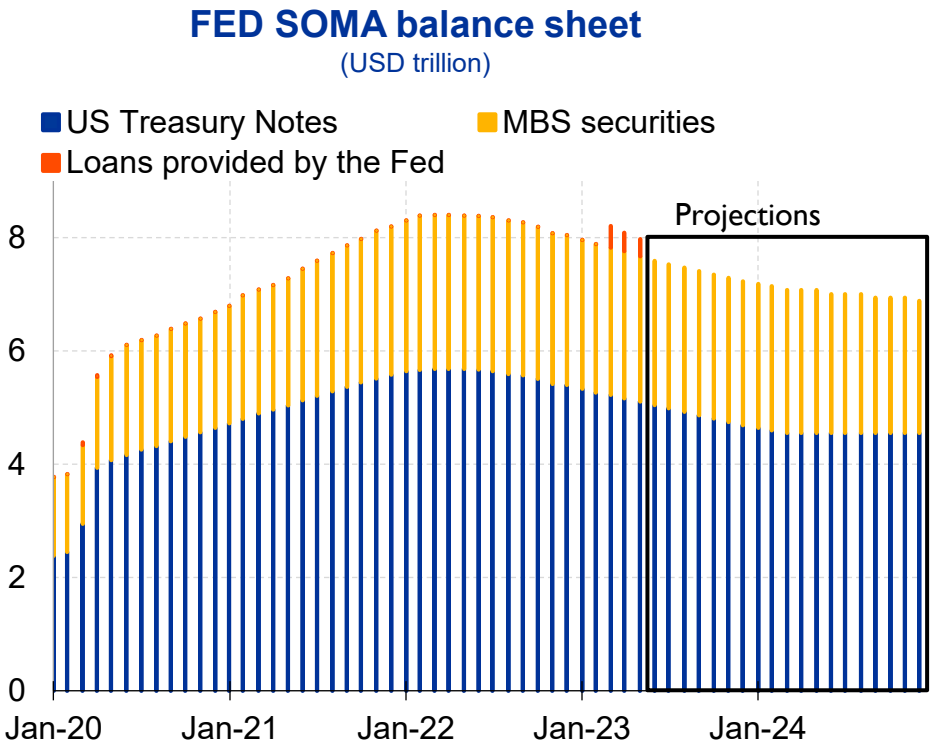
Estimated unrealised gains (losses) on SVB's investment portfolio securities (USD billion)



Source: FR Y-9C and ECB calculations.

Note: Estimated unrealised losses on securities calculated as: (held-to-maturity fair value less held-to-maturity amortised cost) + (available-for-sale fair value less available-for-sale amortised cost).

Fed's crisis loans partly reversed balance sheet reduction, but QT continued



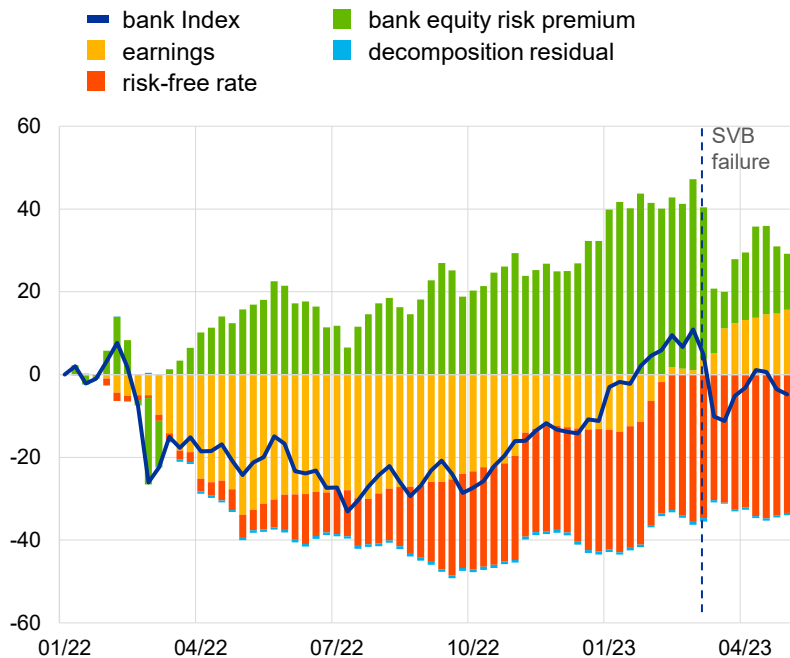
Source: Federal Reserve Bank and ECB calculations.
 Notes: MBS securities include CMBS and agency securities. Loans provided by the Fed (no projections available) are the sum of the loans provided under the discount window, bank term funding programme, FIMA and other credit extensions. Projections based on Federal Reserve Bank of New York Survey of Primary Dealers January/February median expectations.
 Latest observation: 16 May 2023.

Sources: Bloomberg, Federal Reserve
 Latest observation: 10 May 2023.

Bank stock sell-off after SVB failure driven by higher risk premia as earnings continue to rise

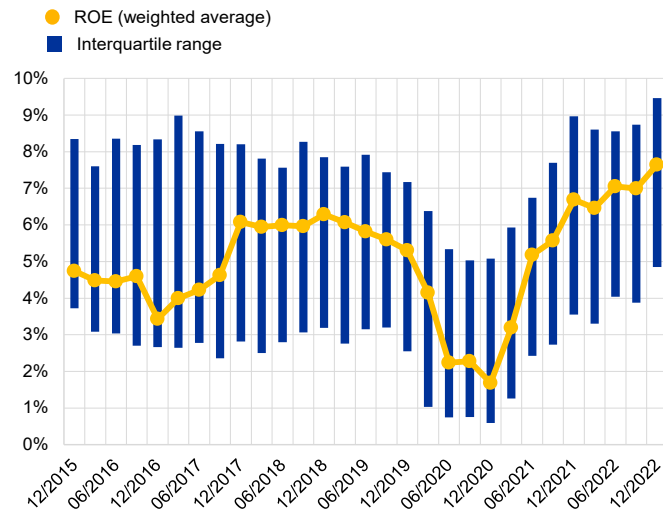
Drivers of bank share prices in the euro area

(percent and p.p. contributions)



Euro area bank return on equity (ROE)

(percent)



Sources: Bloomberg, Refinitiv Eikon and ECB calculations.

Note: Decomposition based on the dividend discount model (H-model) of Fuller and Hsia (1984) implemented for the EuroStoxx Banks index, based on weekly data.

Latest observation: 12 May 2023.

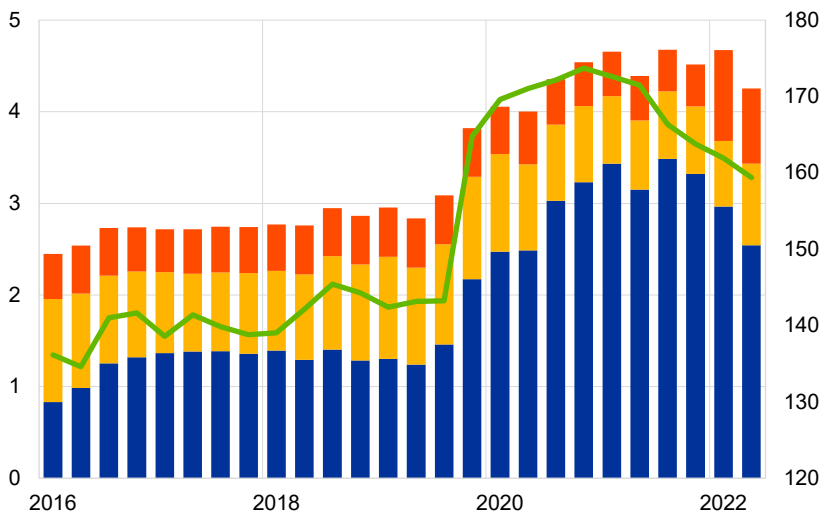
Sources: ECB supervisory data, ECB calculations.

Note: The sample consists of 84 euro area significant institutions.

Liquidity ratios of banks

(lhs: EUR trillions, rhs: percent)

- Central bank reserves
- Government bonds
- Other
- LCR (right-hand scale)

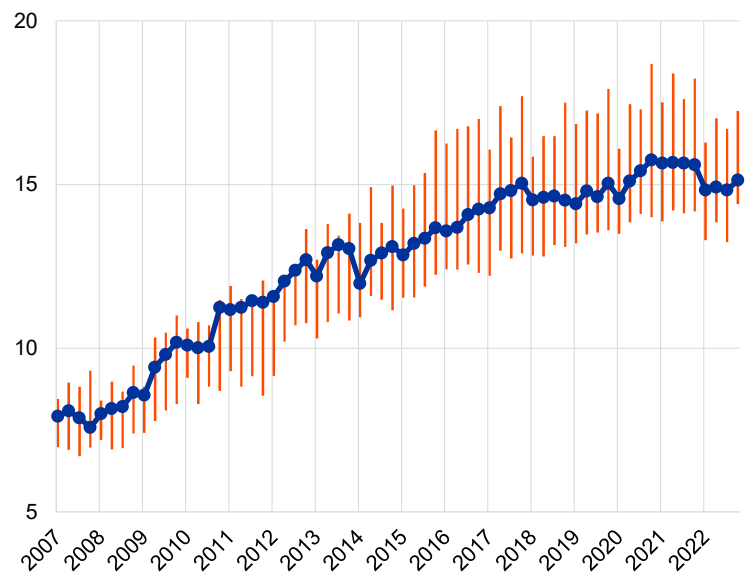


Source: ECB Supervisory Banking Statistics.
 Note: Based on a sample of 84 significant institutions.

Capital ratios of banks

(percent)

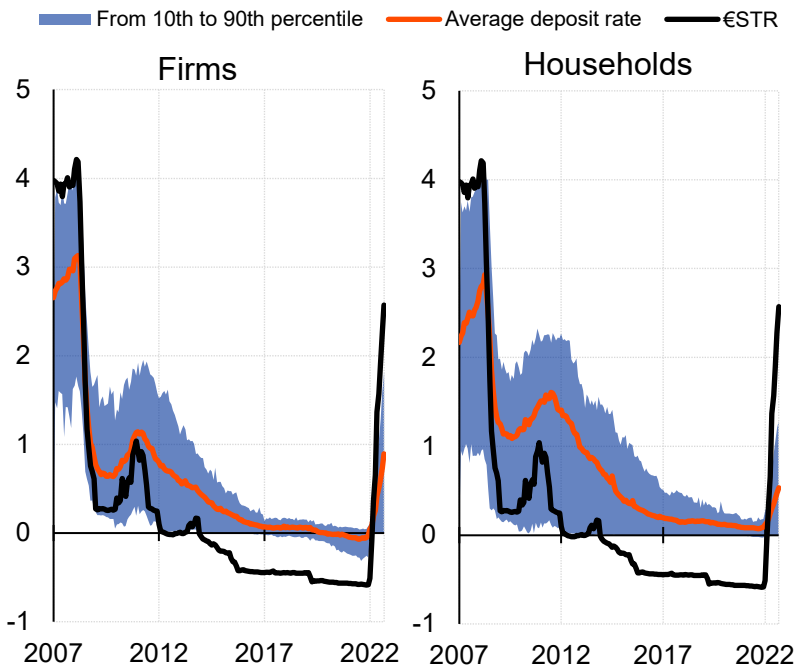
- Weighted average Tier 1 ratio
- Tier 1 ratio 25th to 75th percentile



Source: Bloomberg.
 Note: Weighted average Tier 1 ratio for an unbalanced sample of up to 76 euro area banks.

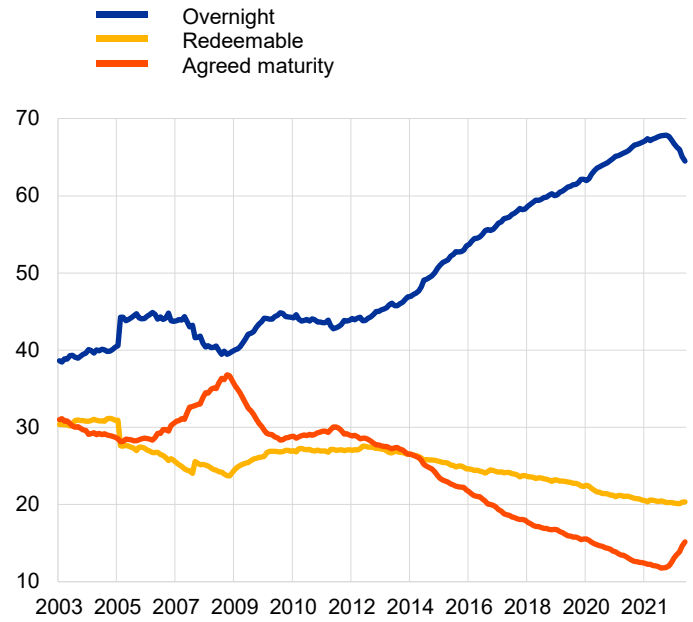
Banks initially benefit from higher interest rates due to high share of sluggish deposits

Composite deposit rates vs. €STR (percent)



Sources: ECB (iBSI, iMIR).
 Notes: Distribution of composite deposit rates on firms' (lhs) and households' (rhs) newly issued deposits weighted by outstanding amounts (cumulated over six months). The average deposit rate is taken from the aggregate MIR data.
 Latest observation: March 2023.

Share of different deposit categories (percent of total deposits)

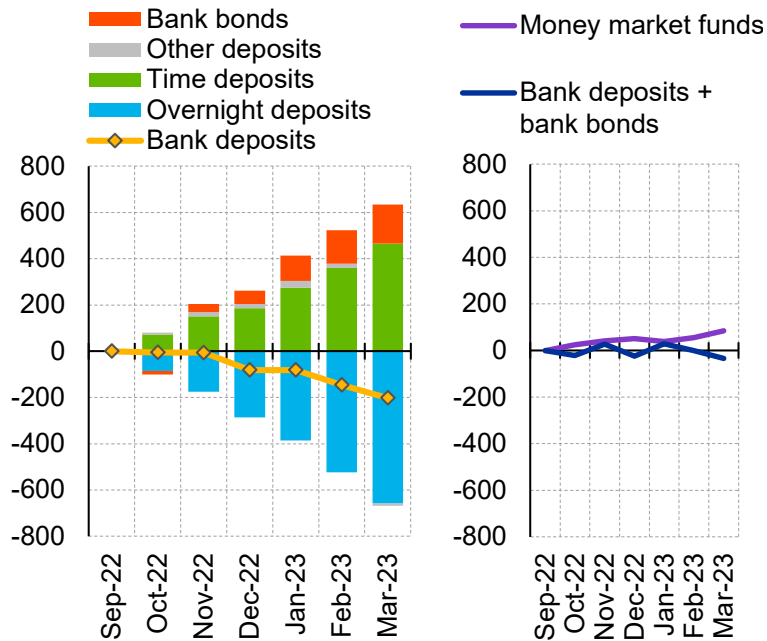


Sources: ECB supervisory data and ECB calculations.
 Note: Based on a sample of 84 Significant Institutions. Overnight, redeemable and agreed-maturity deposits are aggregated for households and non-financial corporates. Volume shares refer to the outstanding stock.

Shift from overnight into time deposits, with limited outflows into MMFs in EA

Bank funding in the euro area

(cumulated flows in EUR bn since end-September 2022; SA)

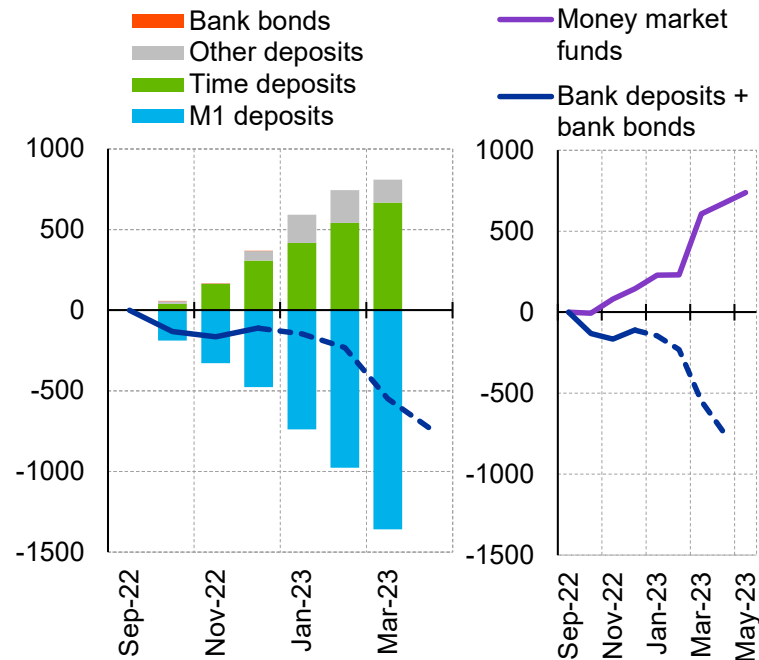


Sources: ECB (BSI) and ECB calculations.

Notes: Bank deposits consist of deposits held with the MFI sector by euro area residents excluding MFIs, central government and financial vehicle corporations involved in securitisation activity. Their flows have been adjusted for the operational incident in TARGET2, which inflated the September 2022 OFI deposits, to be then reversed in October and November 2022. Bank bonds are those held by euro area residents excluding MFIs and central government. Latest observation: March 2023.

Bank funding in the United States

(cumulated monthly differences in outstanding amounts in USD bn since end-September 2022; SA bank deposit, NSA bank bonds)

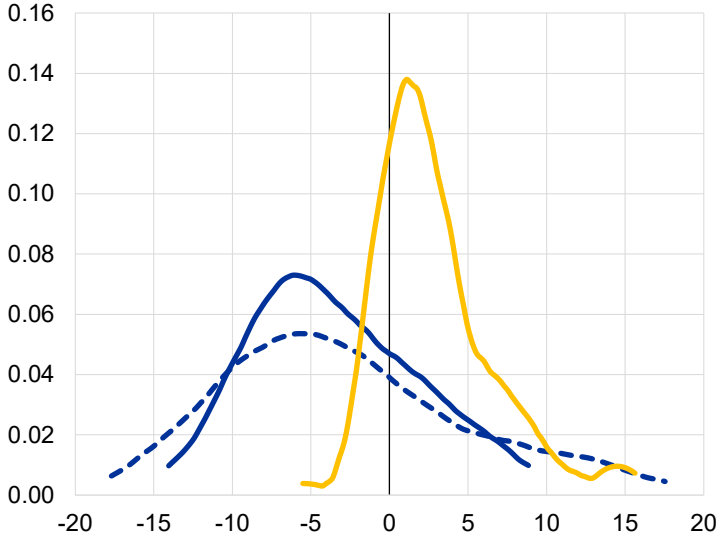


Sources: Federal Reserve Board/Haver Analytics and ECB calculations. Notes: Banks are domestically chartered commercial banks, US branches and agencies of foreign banks and Edge Act and agreement corporations. Consolidated bank bond data are quarterly and interpolated at monthly frequency. They do not include issuance activity from Federal Home Loan Banks (FHLB) as it is not possible to identify the part of it that is directed to depository institutions. "M1 deposits" include demand and other liquid deposits. Latest observation: May 2023 for money market funds (up to 10 May), April 2023 for total bank deposits (dashed line), March 2023 for deposit breakdown and December 2022 for bank bonds.

Change in Economic Value of Equity (EVE) and Net Interest Income (NII) across euro area banks

(X-axis: percent of CET1 capital; y-axis: density)

- 2021 Q4 Delta EVE as a share of CET1 (200bps parallel upward shift)
- 2022 Q4 Delta EVE as a share of CET1 (200bps parallel upward shift)
- 2022 Q4 Delta NII as a share of CET1 (200bps parallel upward shift)

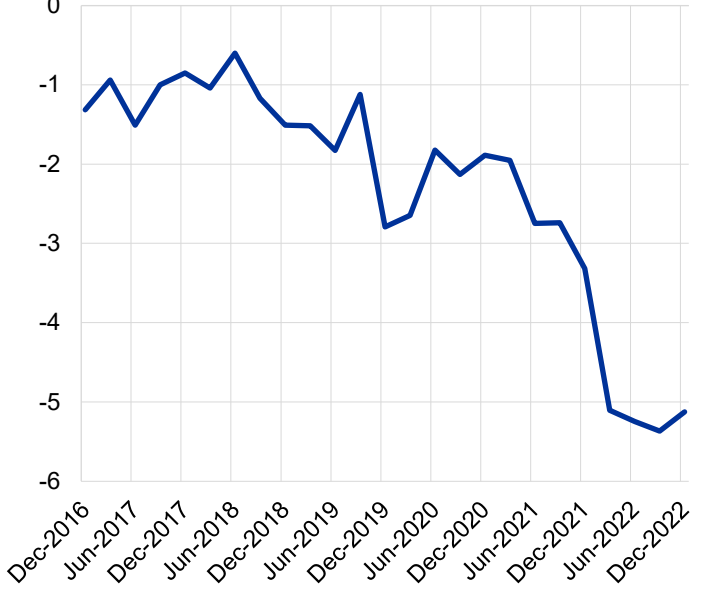


Sources: ECB supervisory statistics and ECB calculations.
 Note: Based on a kernel density and banks' self-reported data for euro-denominated exposures.

Change in Economic Value of Equity (EVE) across euro area banks over time

(percentage of CET1 capital)

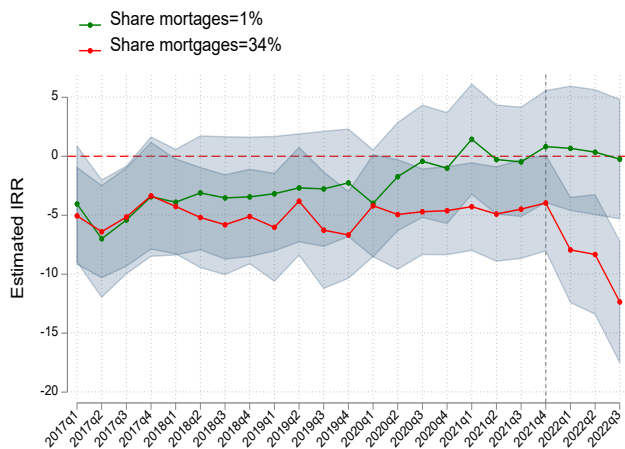
- Delta EVE as share of CET1 (200bps parallel upward shift of the yield curve)



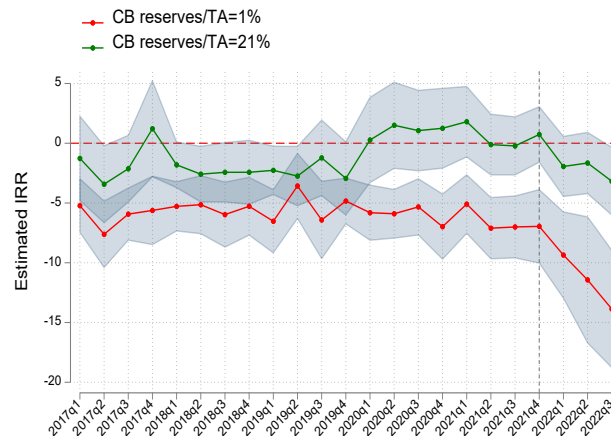
Sources: ECB supervisory statistics and ECB calculations.
 Note: Based on banks' self-reported data for euro-denominated exposures.

Change in euro area banks' Economic Value of Equity (EVE)

By share of mortgages (percent)



By share of central banks reserves (percent)



Sources: ECB supervisory statistics and ECB calculations.

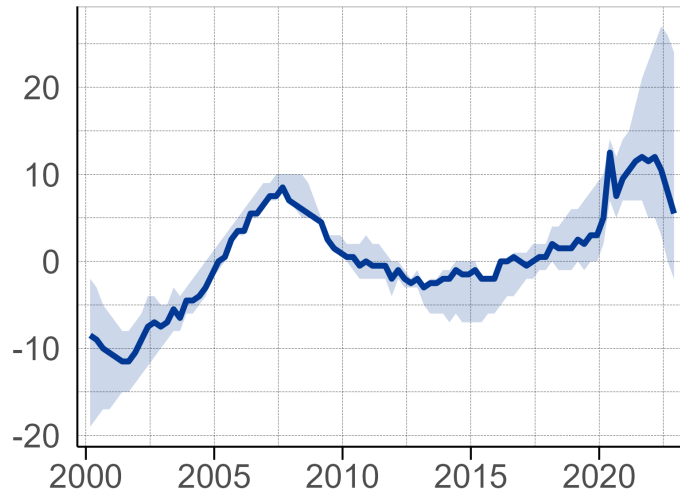
Note: Regression-based dynamic plot. The endogenous variable is the q-o-q change in bank's economic value of equity over CET1. The variable of interest is the interaction between quarterly dummies and the ratio of mortgages-to-total assets (the ratio of central bank reserves). 1% and 34% (21%) correspond to the 10th and 90th percentile of the ratio of mortgages-to-total assets (the ratio of central bank reserves to total assets) distribution. Regressions include a large set of bank-specific controls, bank and country-time fixed effects. Confidence intervals at the 90% level in grey.

Higher interest rates may lead to reversal of asset overvaluation

Overvaluation of euro area house prices

(percent)

- RRE valuation (average of 2 measures)
- Range of valuation estimates



Sources: RESV.
Latest observation: December 2022.

Euro area equity market valuation metrics relative to the ten-year average

(z-score)



Sources: ECB supervisory statistics and ECB calculations.
Note: Average z-scores of price-to-book ratio, price-to-forward (twelve-month) earnings ratio, price-to-long-term (ten-year), inflation-adjusted earnings ratio, and inverse risk premia proxied by five-year CAPE yield less five-year real (inflation swap-adjusted) government bond yield (German for the euro area), EURO STOXX.
Latest observation: 14 May 2023.

Thank you very much for your attention!