



EUROPEAN CENTRAL BANK

EUROSYSTEM

The Eurosystem's operational framework

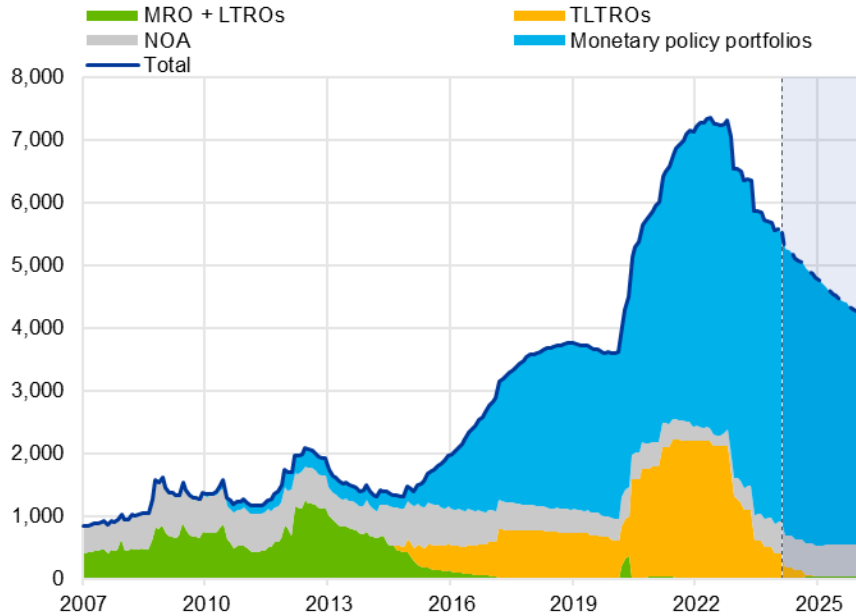
14 March 2024

Isabel Schnabel, Member of the ECB's Executive Board
Money Market Contact Group meeting, Frankfurt am Main

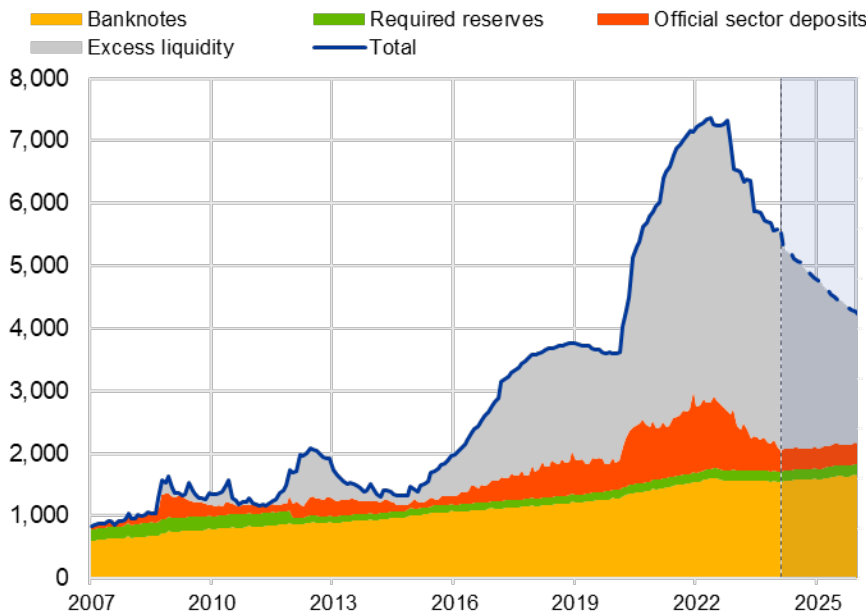


Eurosystem balance sheet: actual and projected (EUR billion)

Asset side



Liability side

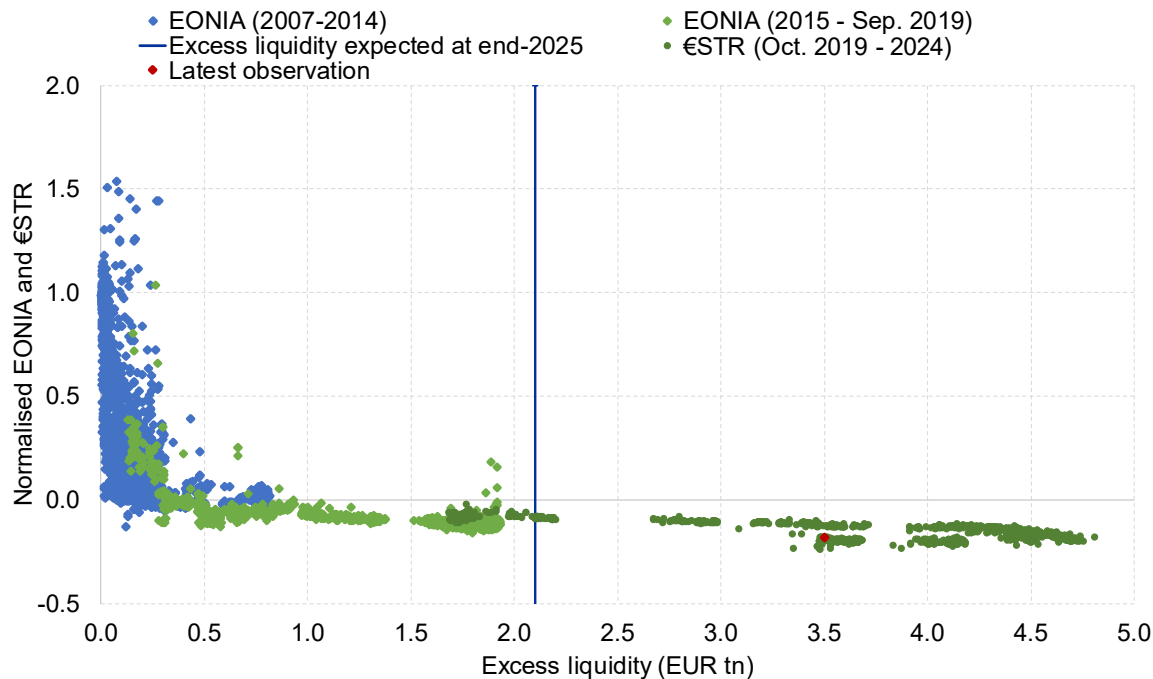


Sources: ECB, ECB calculations.

Notes: NOA stands for net other assets. The main assumptions behind the projections are the following: the future paths of the monetary policy portfolio, MRO and 3-month LTRO participation are based on the median expectations by analysts as reported in the latest SMA surveys; the projection of banknotes is based on ECB internal models.

EONIA and €STR as a function of excess liquidity

(ratio, EUR trillion)



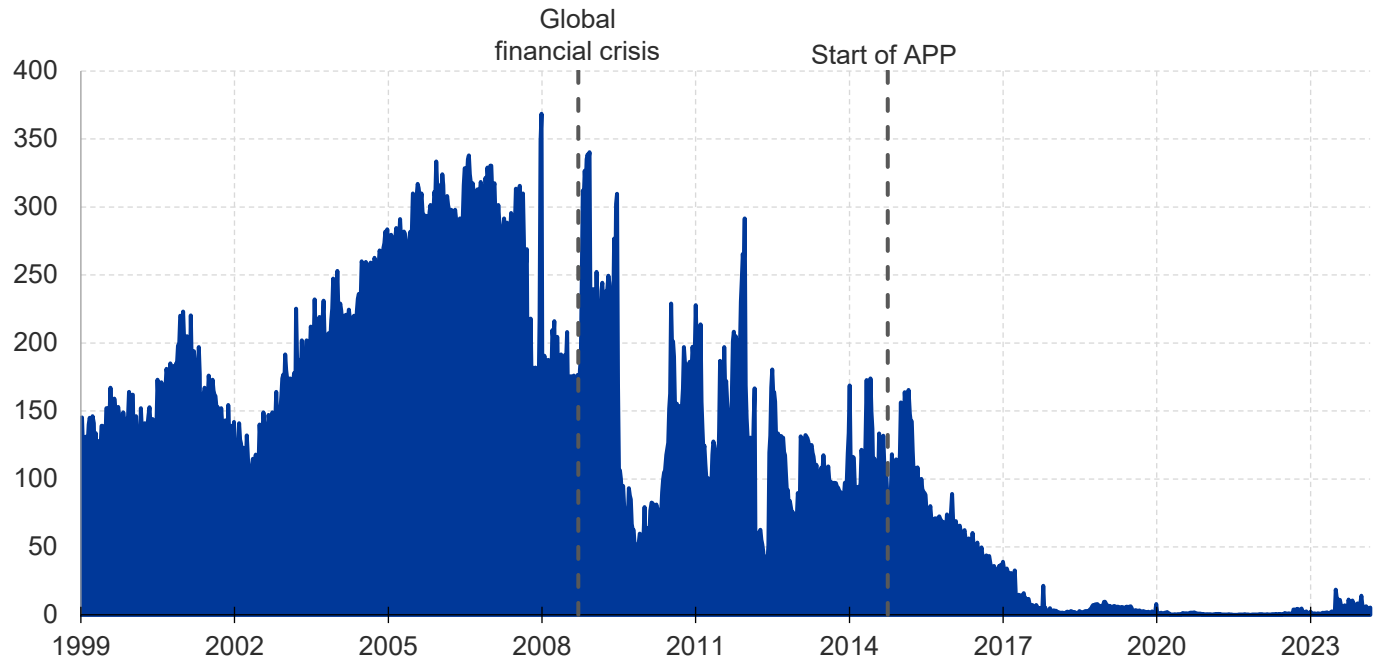
Sources: ECB, EMMI.

Notes: Y-axis shows the normalised EONIA = (EONIA to DFR spread) / (MRO to DFR spread). Before the normalisation EONIA is reduced by the long-term historic spread between EONIA and the €STR of 8.5 bps spread.

Latest observation: 7 March 2024.

Regular recourse to Eurosystem operations was necessary before the start of asset purchases

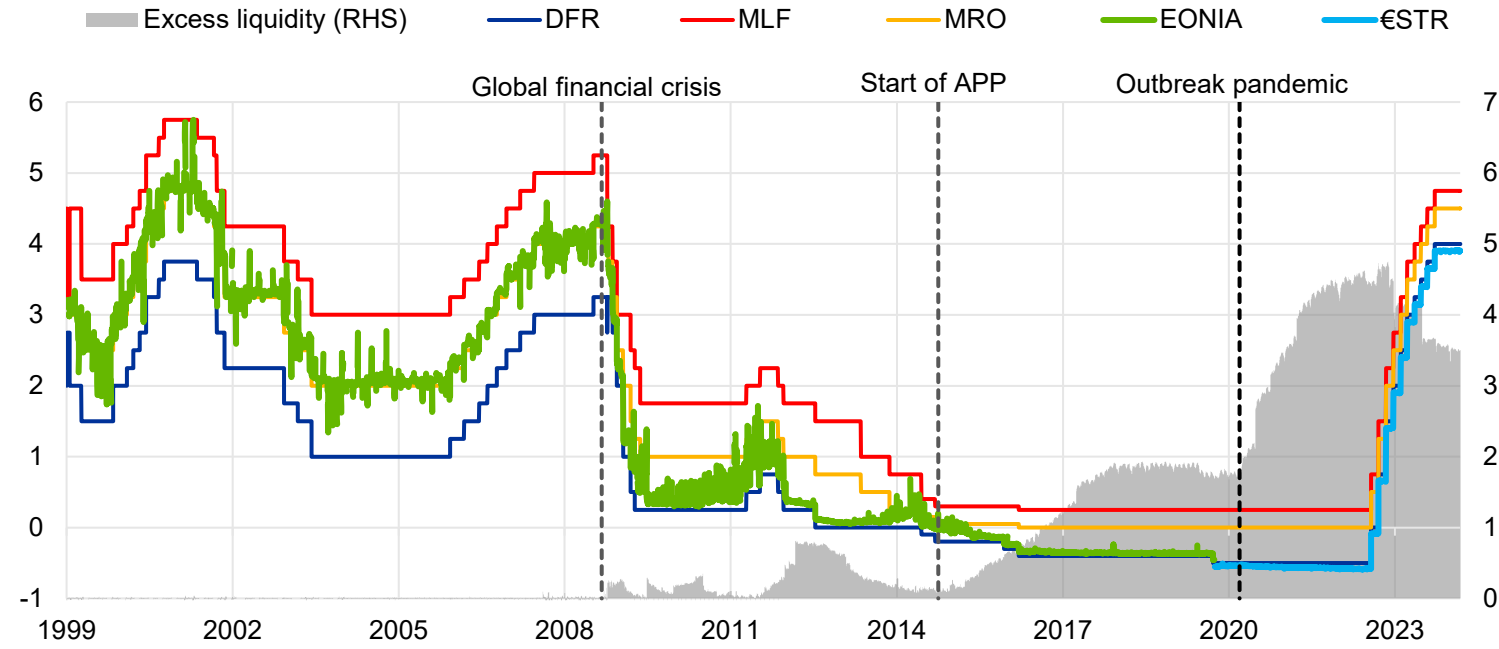
MRO take-up (EUR billion)



Source: ECB.
Notes: Main refinancing operations (MROs) usage. ECB weekly balance sheet reporting.

Key ECB interest rates, overnight rate and excess liquidity

(left-hand axis: %; right-hand axis: EUR trillion)



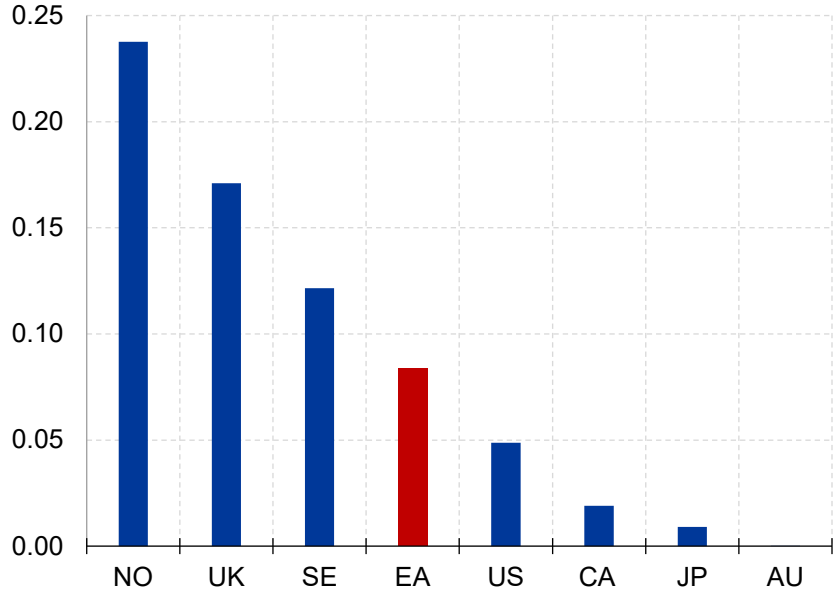
Sources: MMSR, MOPDB, SDW.

Note: DFR = Deposit Facility Rate, MLF = Marginal Lending Facility Rate, MRO = Main Refinancing Operation Rate, EONIA = Euro Overnight Index Average, €STR = Euro Short-Term Rate.

Interest rate corridors were often wide enough to foster interbank market activity

Absolute average deviation between short-term money market rate and anchoring rate

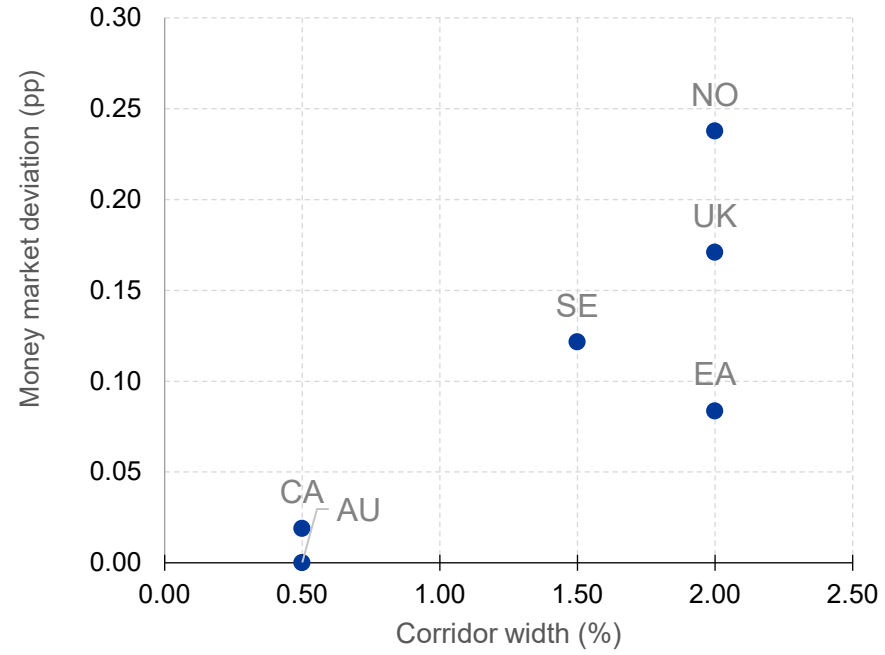
(pp, March 2004 – June 2008)



Sources: Bloomberg, central bank data repositories.
 Notes: The chart above depicts the average absolute deviation between the short-term interest rate and the respective anchoring rate between March 2004 and June 2008. The starting point corresponds to the period after the implementation of several changes to the operational framework of the Eurosystem in the first quarter of 2004.

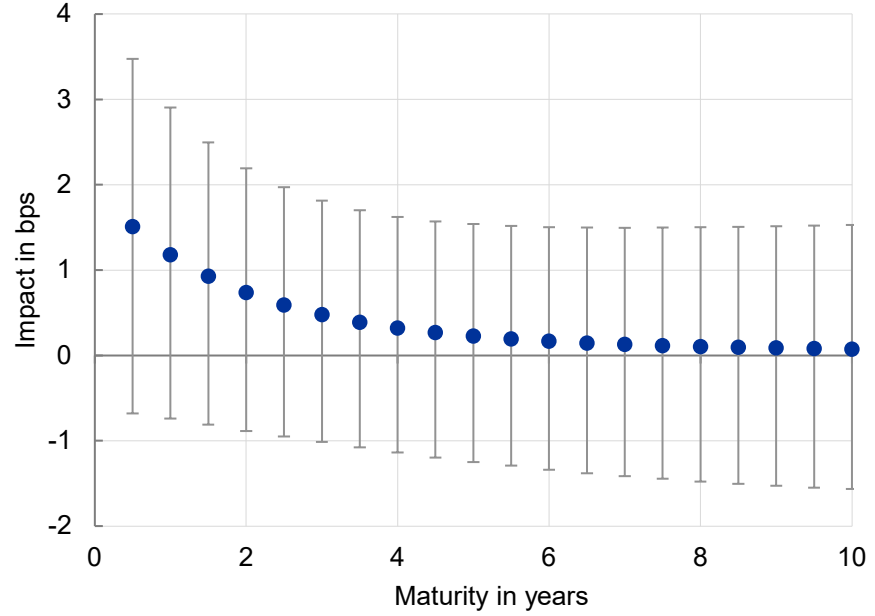
Corridor width and money market rate deviation

(pp, %, March 2004 – June 2008)



Source: Bloomberg, central bank data repositories.
 Notes: The chart above depicts the absolute deviation, on average, between a short-term interest rate and the respective anchoring rates relative to the corridor width over the same period. For AU, CA, SE and EA, this is between March 2004 to June 2008. For NO, this is depicted only until March 2007 given the reduction in Norges Bank's interest rate corridor at this time. For the UK, the volatility relates to pre-March 2005, i.e. ahead of the interim reforms to Bank of England's operational framework.

Long-run impact of a permanent 10 bp increase in spread volatility on OIS rates between July 2000 and December 2015



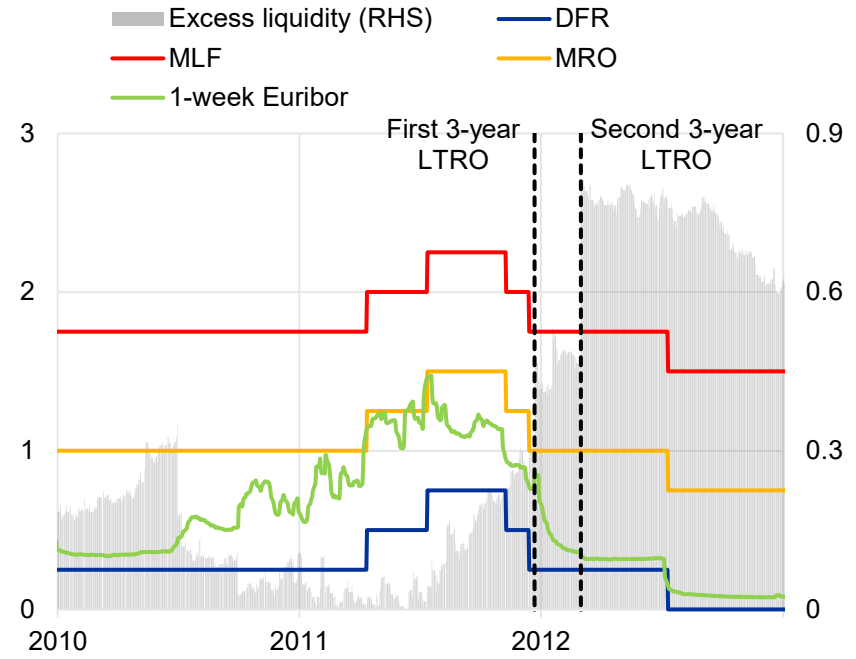
Source: ECB.
Notes: Estimates build on a weekly FAVAR model including three yield curve factors (level, slope, curvature), the rolling 5-day standard deviation of the level of EONIA net of policy rate changes and the CISS. The impact is computed by mapping back the impact of changing short rate volatility on the three yield curve factors into yields of any maturity following the Nelson-Siegel approach.

3-month EURIBOR spread to OIS (Basis points)



Source: Bloomberg.

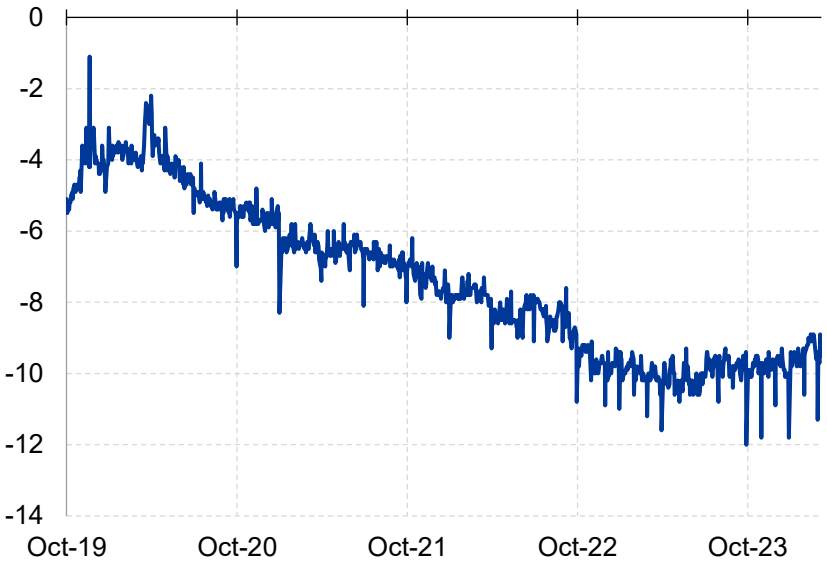
Key ECB interest rates, overnight rate and excess liquidity (% , EUR tn)



Source: ECB.

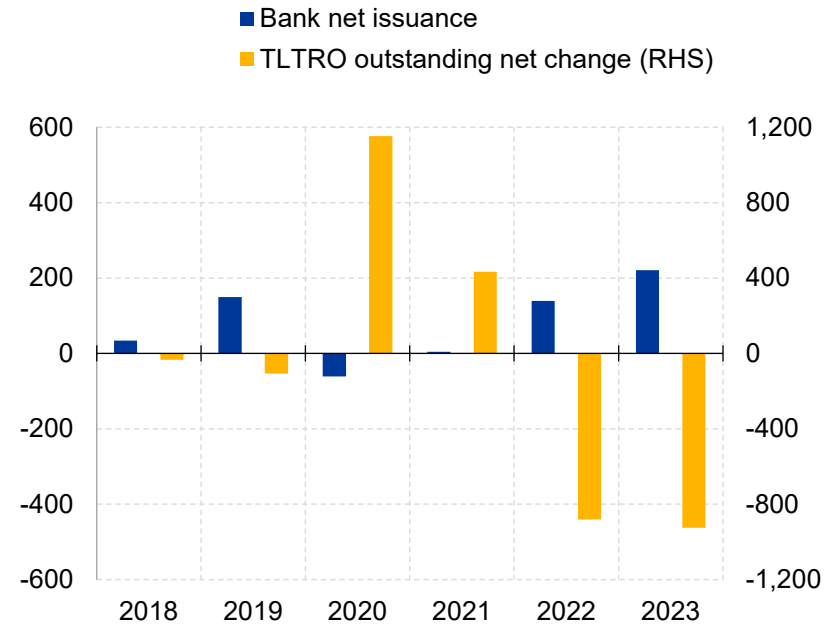
Abundant reserves can create a “leaky” floor and reduce incentives for market activity

Spread of euro short-term rate to deposit facility rate
(basis points)



Sources: ECB.

TLTROs and net issuance by banks
(EUR billion)

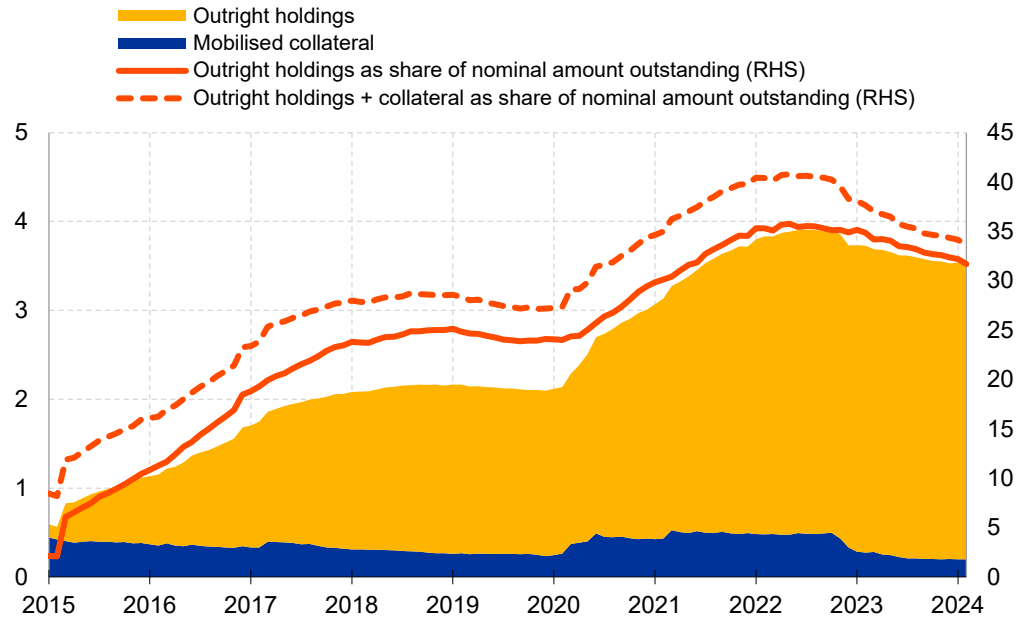


Sources: ECB, Dealogic, CSDB.

Notes: Bank net issuance includes net issuance of covered and senior unsecured bonds by euro area banks, denominated in EUR, and commercial paper net issuance across a range of currencies, converted to EUR.

Eurosystem footprint in euro area government bond market

(LHS: EUR trillion; RHS: %)



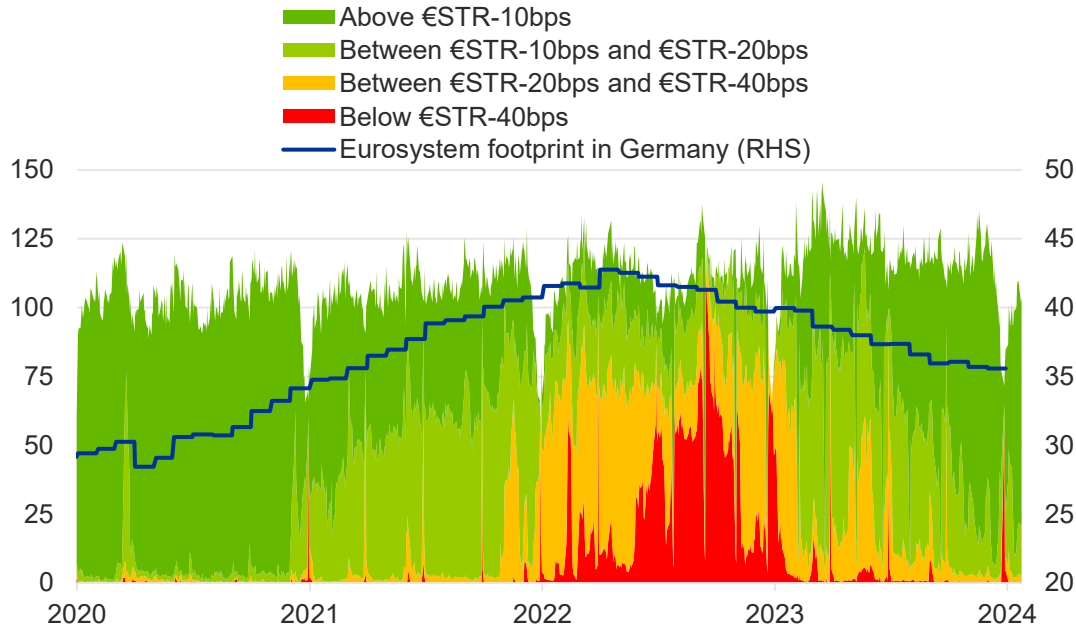
Sources: Eurosystem, CSDB, ECB calculations.

Notes: Footprint measured as a share of Eurosystem's euro area government bond holdings compared to nominal amount outstanding. Outright holdings are euro area government bonds held by the Eurosystem via purchase programmes, adjusted with euro area government bonds lent back via the Securities Lending against cash programme. Mobilised collateral includes euro area government bonds mobilised as collateral for open market operations.

Last observation: 31 December 2023.

Volume of repos against German government bonds by rate bracket and Eurosystem footprint

(LHS: EUR billion; RHS: %)

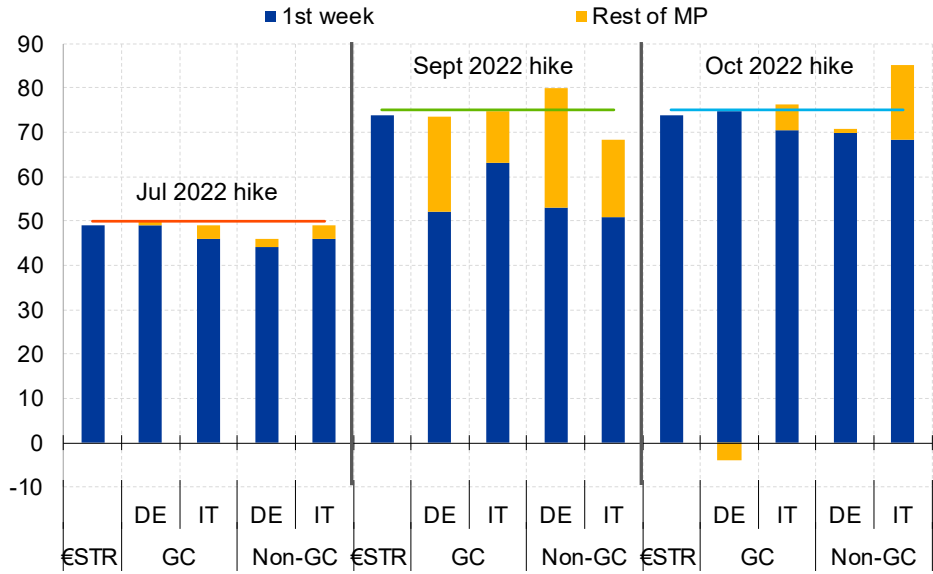


Sources: MMSR, Eurosystem, ECB calculations.

Notes: Footprint measured as a share of Eurosystem's German central and regional government bond holdings and mobilised collateral (adjusted for government bonds lent back to the market via the Eurosystem's Securities Lending against cash arrangement) compared to nominal amount outstanding. Specialness of repo market is displayed as volumes per rate bucket in EUR billion. Specialness of repo market is displayed as volumes per rate bucket in EUR billion.

Last observation: 23 January 2024 (specialness of repo market); 31 December 2023 (Eurosystem footprint).

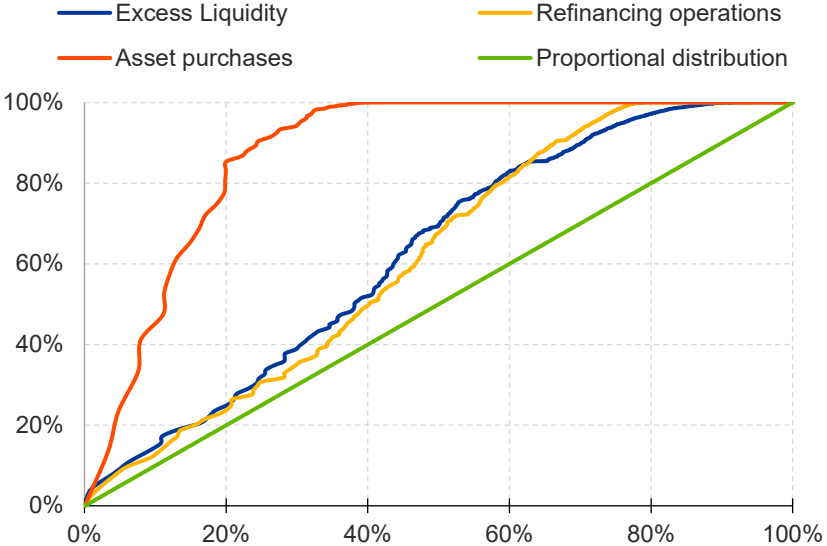
Rate change after one week and on average over the rest of the maintenance period (MP) (basis points)



Sources: MMSR, BrokerTec, MTS, ECB calculations.
 Notes: One-day contracts; quarter-end rates excluded. Rate changes after one week are indicated in blue. Average changes for the rest of the maintenance period (MP) are indicated in yellow.

Distribution of asset purchases, refinancing operations and excess liquidity holdings

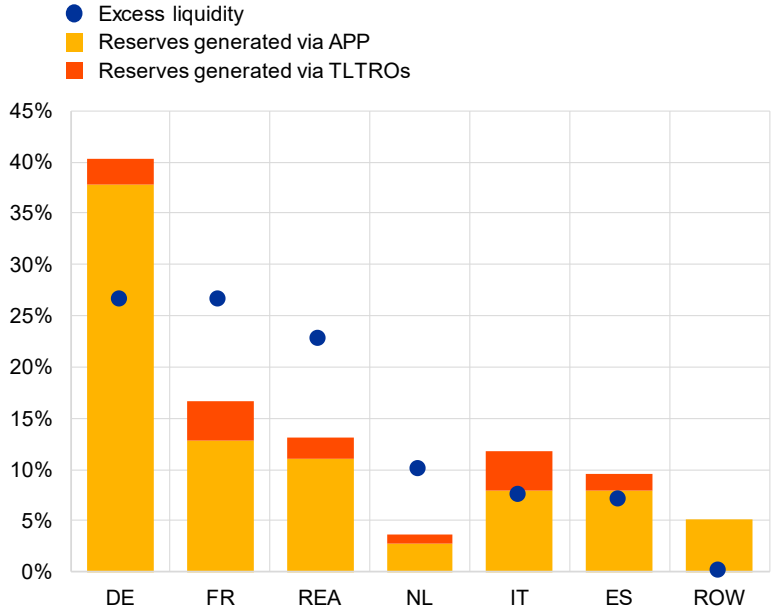
(Vertical axis: share; horizontal axis: cumulative bank total assets)



Source: ECB.
 Notes: Data between November 2011 and 31 May 2023. Each series ordered individually from highest to lowest. 2541 banks included in the analysis (for which we have data on both EL and total assets). To avoid double counting, for EL and refinancing operations the average amount outstanding in the period is taken, whereas for purchases we take the total sum.

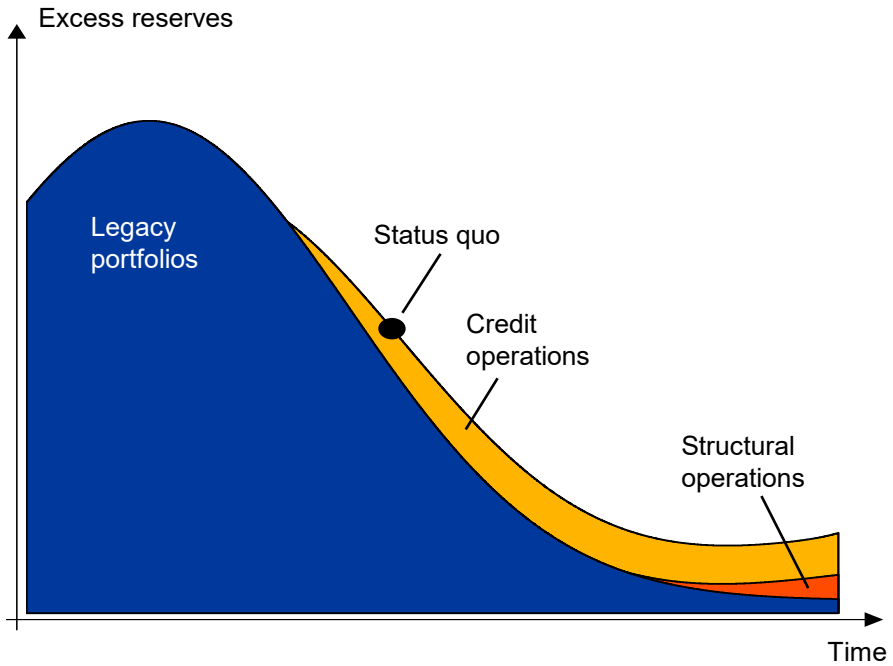
Liquidity injection, reserve generation and distribution by country

(as % of respective total)



Sources: ECB (MOPDB, TMS) and ECB calculations.
 Notes: Chart shows the amount of reserves created via net asset purchases since 2014 (including APP and PEPP) and TLTRO operations. Yellow and red bars add up to 100% illustrating the total amount of liquidity generated. Redemptions are allocated pro rata across jurisdiction to obtain the amount of net liquidity created via asset purchases. Blue dots show the distribution of excess liquidity and also add up to 100%. Data is at the MFI level so subsidiaries of international banks show up in the jurisdiction where the respective subsidiary is located. Latest observation: 25 May 2023.

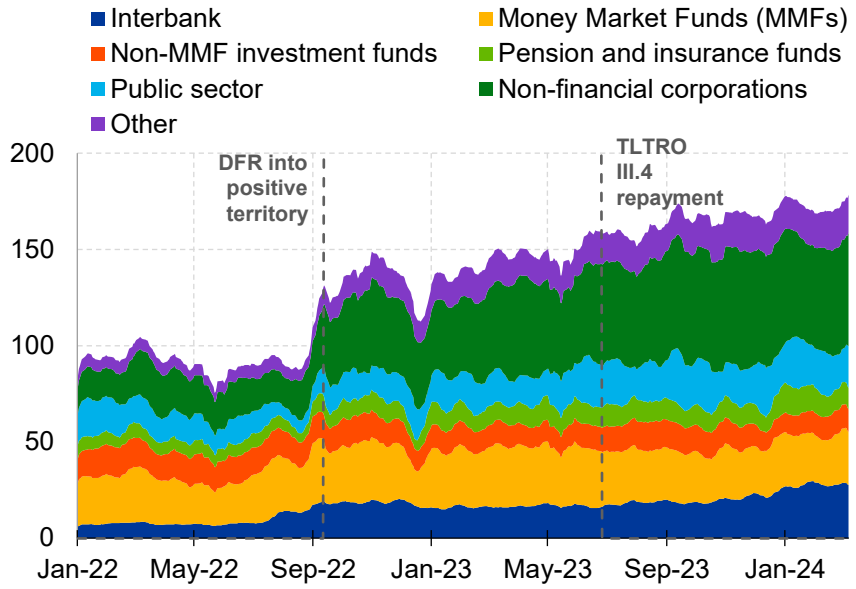
Stylised breakdown of reserve supply over time



Source: ECB.

Unsecured overnight borrowing volumes by counterparty sector

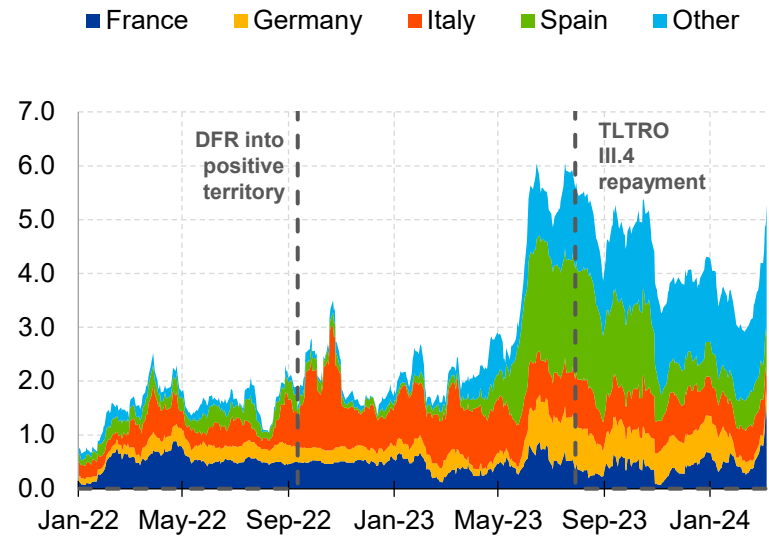
(EUR billion)



Source: MMSR.
 Notes: Chart displays borrowing volumes by MMSR reporting agents split by counterparty sector, 10-day moving averages are displayed.
 Last observation: 10 March 2024.

Bilateral term repo by Italian banks split by counterparty location

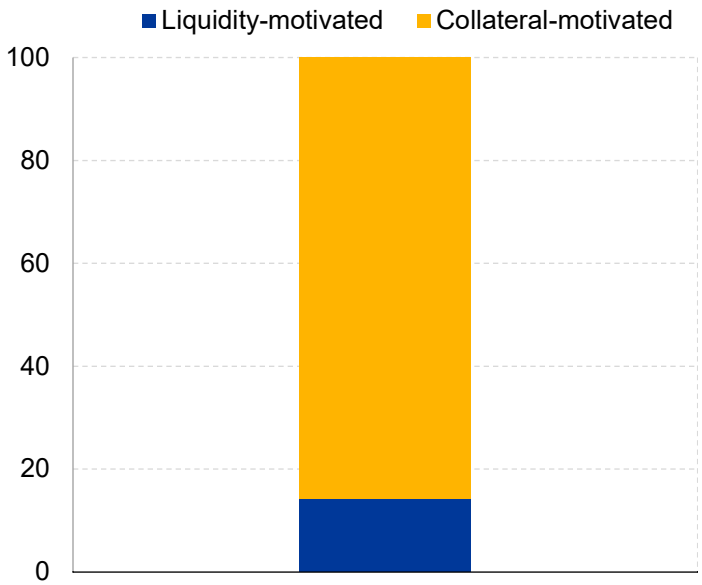
(EUR billion)



Source: MMSR.
 Notes: Chart displays cash borrowing volumes by Italian reporting agents against all collateral types, bilateral repo trading only (non-CCP), split by counterparty location. 10-day moving averages are displayed.
 Last observation: 10 March 2024.

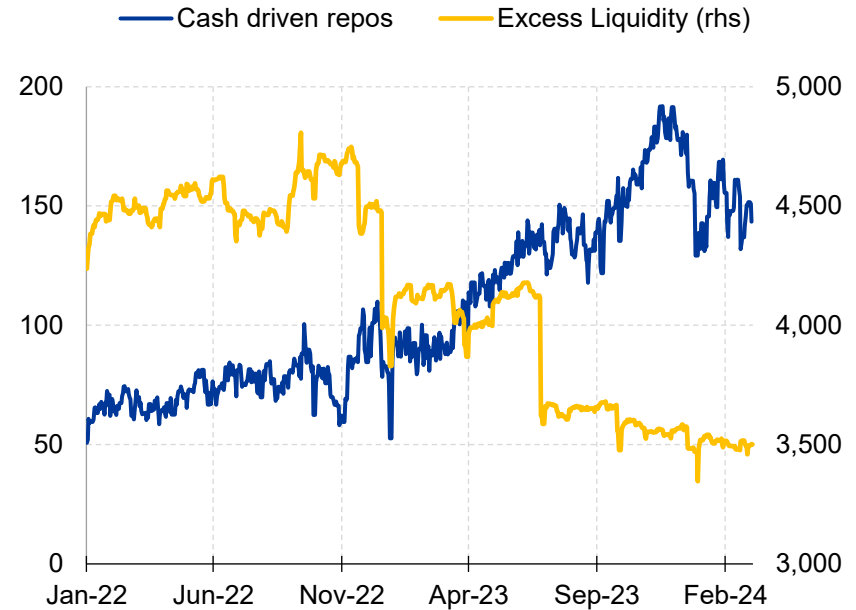
Collateral- vs liquidity-motivated repo transactions in 2022

(% shares)



Excess liquidity and outstanding volumes of liquidity-motivated repo transactions

(EUR billion)



Sources: SFTD, BrokerTec, MTS, ECB calculations.
 Notes: Chart displays the share of liquidity-motivated (general collateral, GC) and collateral-motivated (non-general collateral, non-GC) outstanding volumes. Averages are based on 2022 data.

Sources: ECB, SFTD, BrokerTec, MTS, ECB calculations.
 Notes: Chart displays liquidity-motivated (general collateral, GC) repo volumes based on BrokerTec/MTS one-day repo transactions and on Eurex GC pooling trades as reported in SFTD. Calculations are based on a single-counting approach. Last observation: 06 March 2024.

Thank you very much for your attention!