EUROPEAN CENTRAL BANK

EUROSYSTEM

# The ECB's balance sheet reduction: an interim assessment

7 November 2024

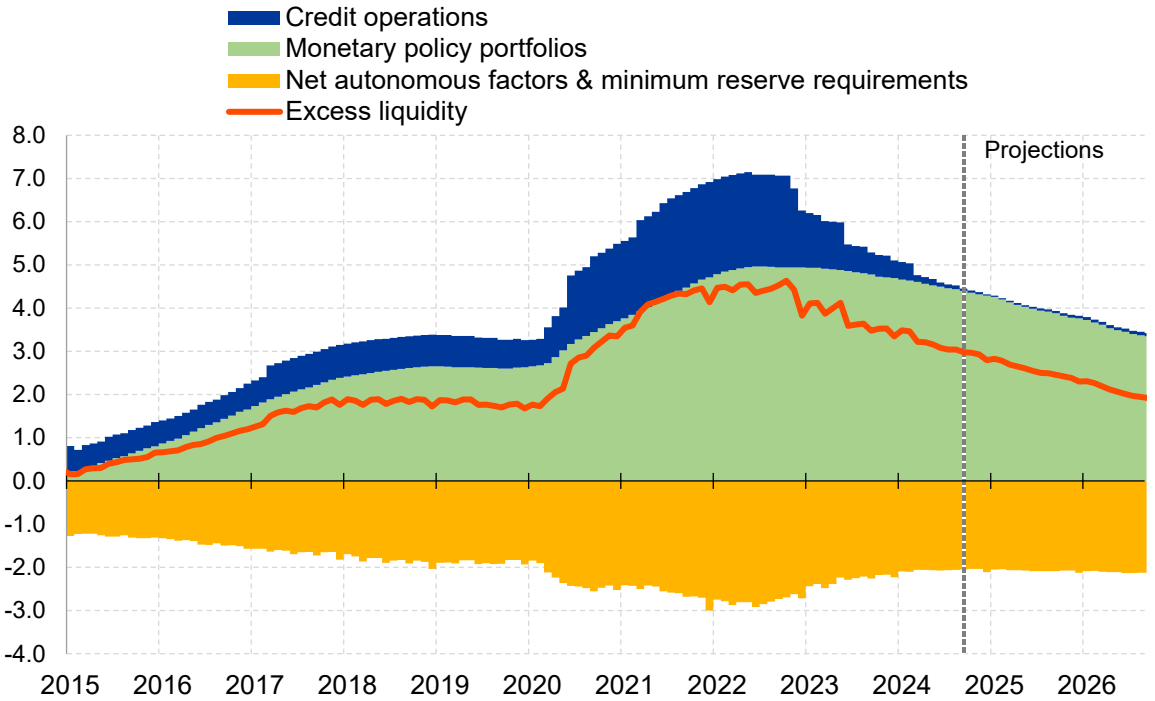
Isabel Schnabel, Member of the Executive Board of the ECB

ECB Conference on Money Markets 2024

# According to staff projections, excess liquidity will remain ample for some time

## Eurosystem balance sheet: actual and projected

*(EUR trillion)*




Sources: ECB, ECB calculations.
Notes: The main assumptions behind the projections are the following: Monetary policy portfolios and credit operations develop in line with the median expectations by analysts as reported in the latest Survey of Monetary Analysts (SMA); the projection of banknotes is based on ECB internal models.

## Key characteristics of the ECB's operational framework

- *Demand-driven system*:
  - Marginal unit of reserves provided elastically on demand against a broad set of collateral

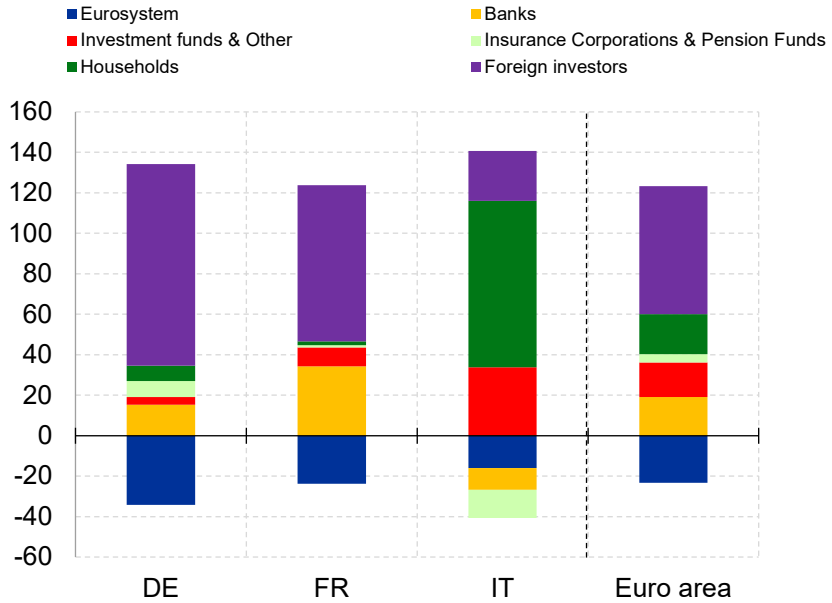
- *Mix of instruments*:
  - Short-term operations at the centre of liquidity provision
  - Structural longer-term lending operations and structural bond portfolio at a later stage

- *"Soft" floor with narrow spread*:
  - Narrow spread (15 bps) limiting potential volatility, while preserving incentives for banks to find market-based funding solutions
  - Deviations from the DFR tolerated in both directions, provided they do not blur signal about monetary policy stance

# No absorption bottlenecks or excessive rise in term premium as balance sheet shrinks

## Absorption of public sector debt securities by type of investor

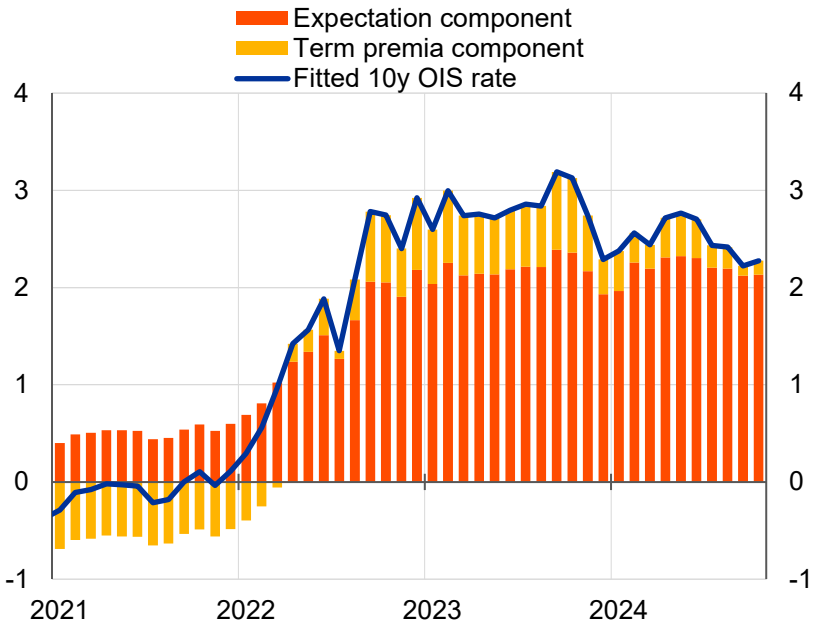
*(%; from 2023 Q1 to 2024 Q2)*




Sources: ECB and SHS.
Notes: The chart shows an estimate of the flows into euro area public sector debt securities based on SHS data, split between a range of euro area investors (banks, households, etc.) and foreign investors. The bars in each column add up to 100%.
Latest observation: 30 June 2024.

## Decomposition of 10-year spot euro area OIS rate

*(percentages per annum)*

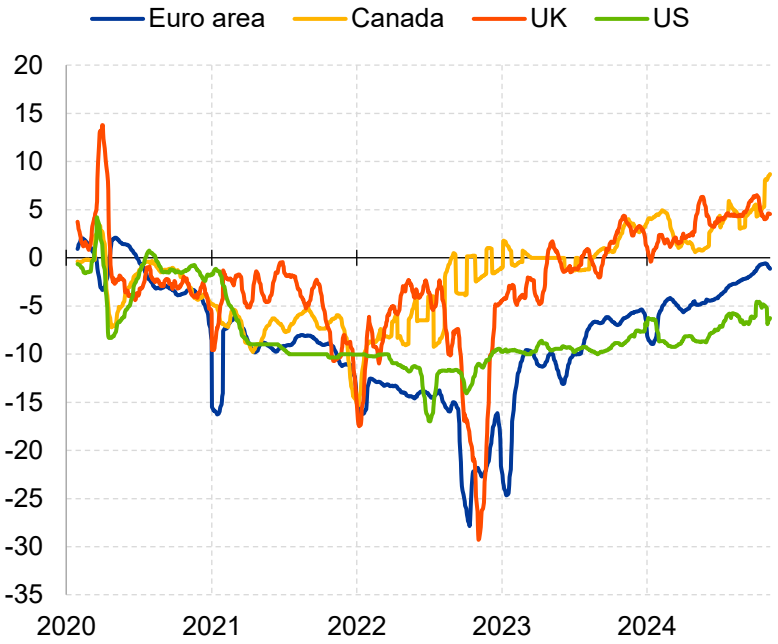



Sources: Bloomberg and ECB calculations.
Notes: Model estimates are based on two affine term structure models, one with and one without survey information on interest rate expectations (both variations of Joslin, Singleton and Zhu 2011), and a lower bound term structure model following Geiger and Schupp (2018) incorporating survey information on interest rates expectations.
Latest observation: October 2024.

# Steady increase in euro area repo rates primarily reflects easing of collateral scarcity

## Spread of repo rates to policy rates

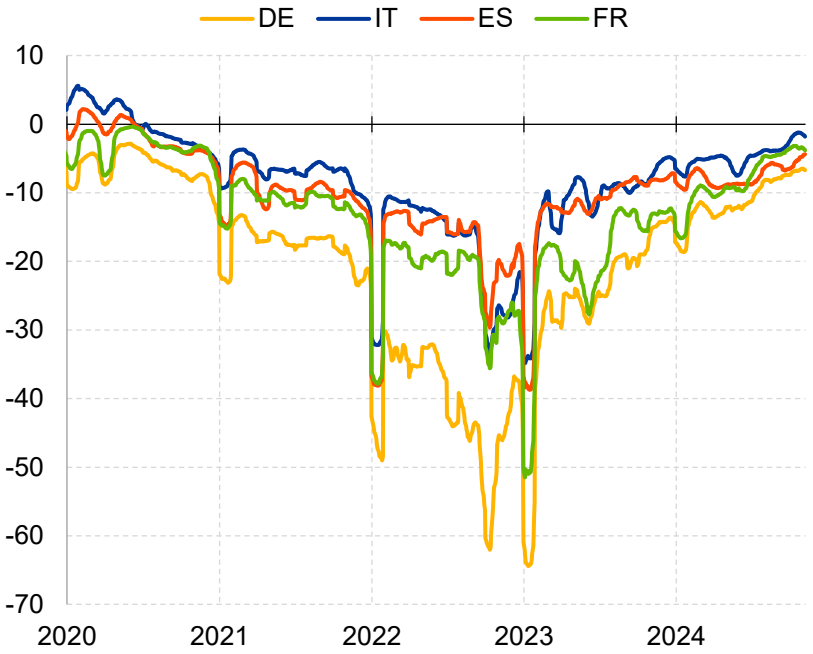
*(basis points)*




Sources: ECB, Bloomberg, Federal Reserve, Bank of England and Bank of Canada.
Notes: Spread between repo rate in each jurisdiction vs the main policy rate. Smoothed by 5-days moving average, excluding quarter-ends. For euro area repo funds rate is taken, for US SOFR, for UK the Repurchase Overnight Index Average "RONIA", for Canada CORRA. For US the spread is adjusted by the interest rate on reserve balances (IORB).
Latest observation: 5 November 2024.

## Spread of repo rates to deposit facility rate

*(basis points)*

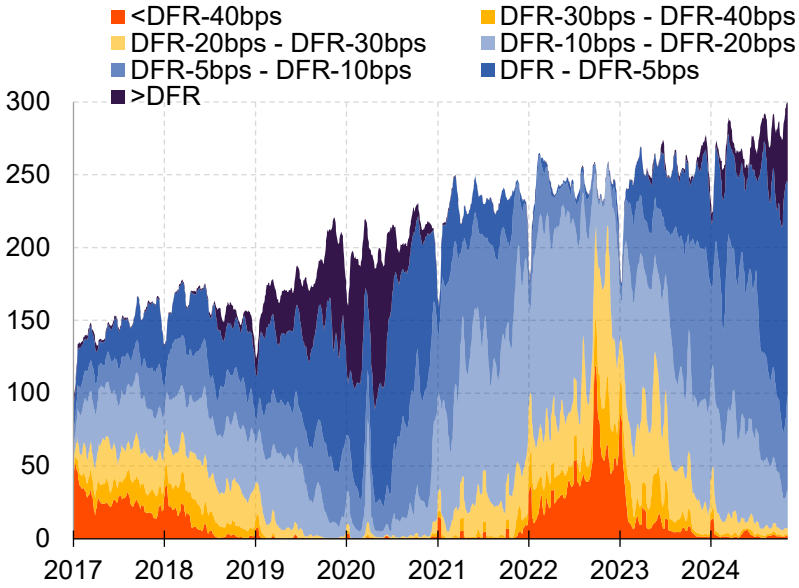



Source: MMSR.
Notes: Repo 1-day against government collateral – DFR, smoothed by 20-days moving average.
Latest observation: 5 November 2024.

# Decline in Eurosystem's market footprint contributed to normalisation in repo markets

## Repo volumes split by rate buckets relative to DFR

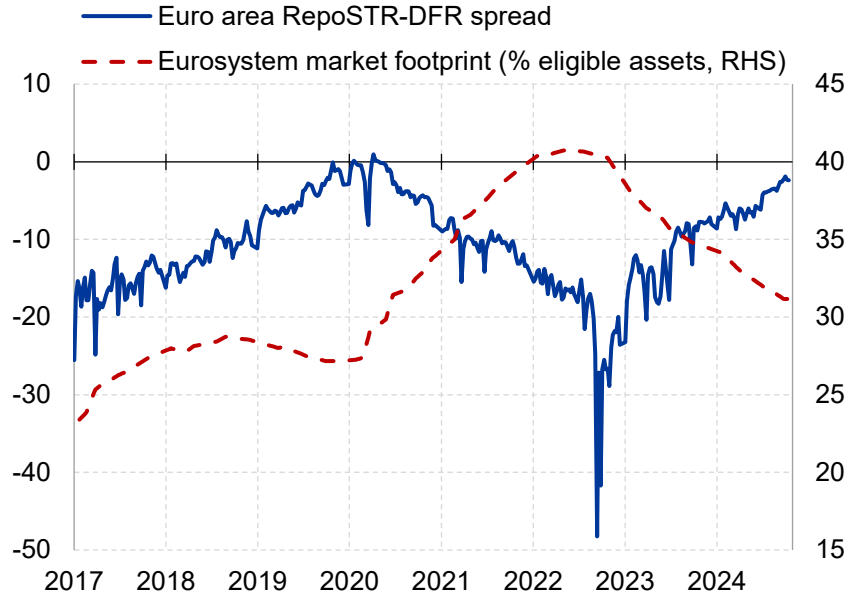
*(EUR bn)*




Sources: MMSR and ECB calculations.
Notes: Untrimmed volume per bucket of RepoSTR rates relative to DFR. Smoothed by 10-day moving average. The chart incudes both general and special collateral.
Latest observation: 4 November 2024.

## Repo rate and Eurosystem market footprint

*(LHS: basis points, RHS: % of eligible assets)*

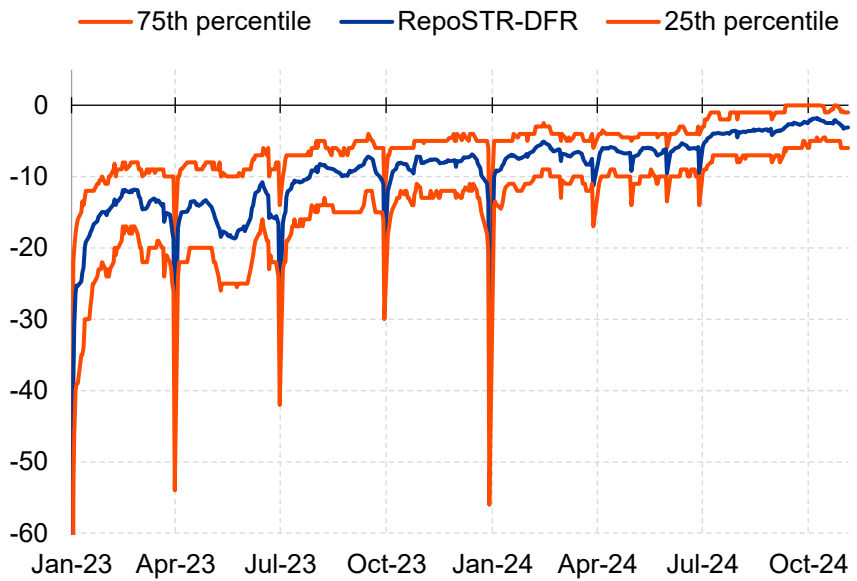



Sources: MMSR and ECB calculations.
Notes: Footprint measured as share of Eurosystem's euro area government bond holdings and mobilised collateral compared to nominal amount outstanding. Outright holdings are euro area government bonds held by the Eurosystem via purchase programmes, adjusted with euro 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. Chart displays weekly level data, excluding month-ends and period between December 23rd and January 6th. See slide 6 for a description of the characteristics of RepoSTR.
Latest observation: 4 November 2024.

# DFR is anchoring repo rates as excess liquidity remains ample overall

## Distribution of repo rate spread to DFR

*(basis points)*



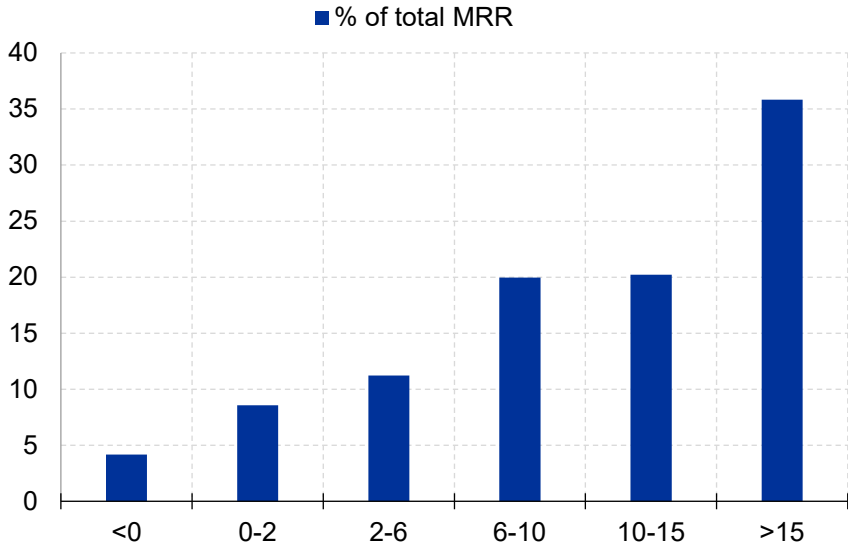

Source: MMSR.

Note: RepoSTR (repo short-term rate) is an aggregated benchmark to evaluate aggregate euro area trends in secured market. The rate is calculated based on secured borrowing transactions from MMSR reporting agents. Similar to €STR, it represents borrowing transactions with fixed rates, wholesale transactions (minimum volume >EUR 1mn) against only financial counterparties. Volumes are trimmed by removing the top and bottom 25% of transactions ordered by rate. The rate represents a volume-weighted average rate. The rate is derived from transactions with 1-day maturity (ON, SN, TN) and only against securities issued by euro area governments.

Latest observation: 4 November 2024.

## Distribution of banks according to excess liquidity relative to their MRR

*(x-axis: average EL/ average MRR distributions, y-axis: % of banking sector MRR)*



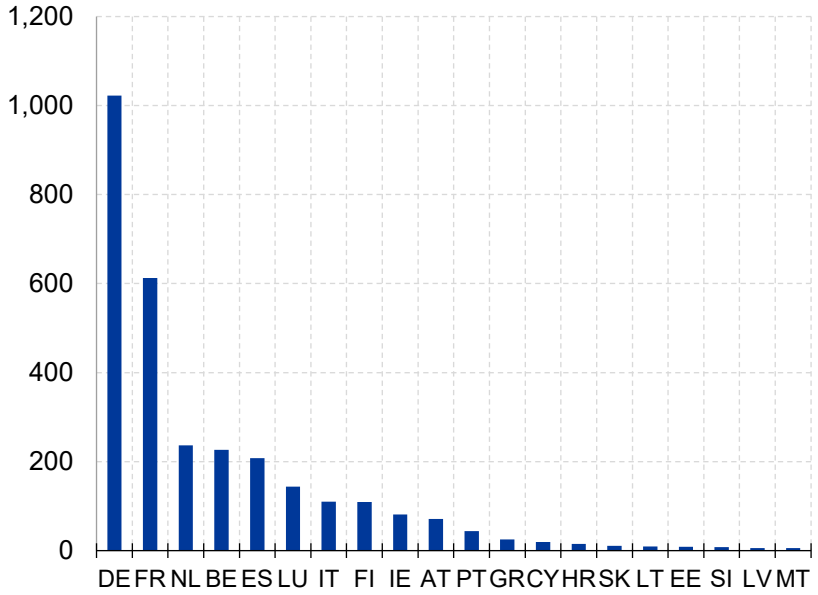

Source: MOPDB.

Note: The chart displays the distribution of Eurosystem counterparties based on the ampleness of their reserve positions during the selected maintenance period (MP). Banks in the <0 group have negative average excess liquidity, while banks in the 0-2 group have average excess liquidity exceeding their average MRR but lower or equal two times their average MRR amounts. The chart shows the proportion of the average MRR held by counterparties in each group relative to the overall average MRR.

Latest observation: 6th MP of 2024 (18 September 2024 - 22 October 2024).

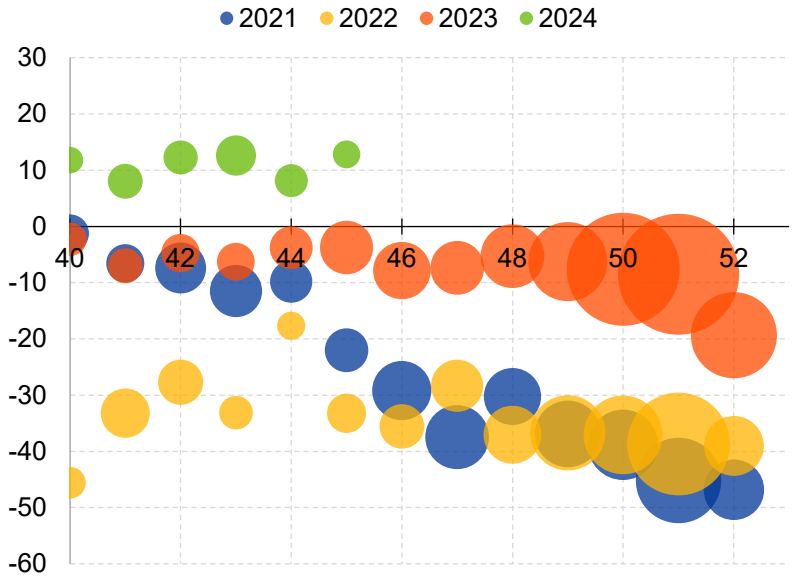
# Efficient redistribution of reserve holdings helps contain pressure on market rates

## Excess liquidity by country
*(EUR billion)*




Source: MMSR.
Latest observation: 30 September 2024.

## Repo rate spread to OIS of Q4 transactions covering year-end
*(x-axis: week of the year, y-axis: bps, bubble size: volume)*

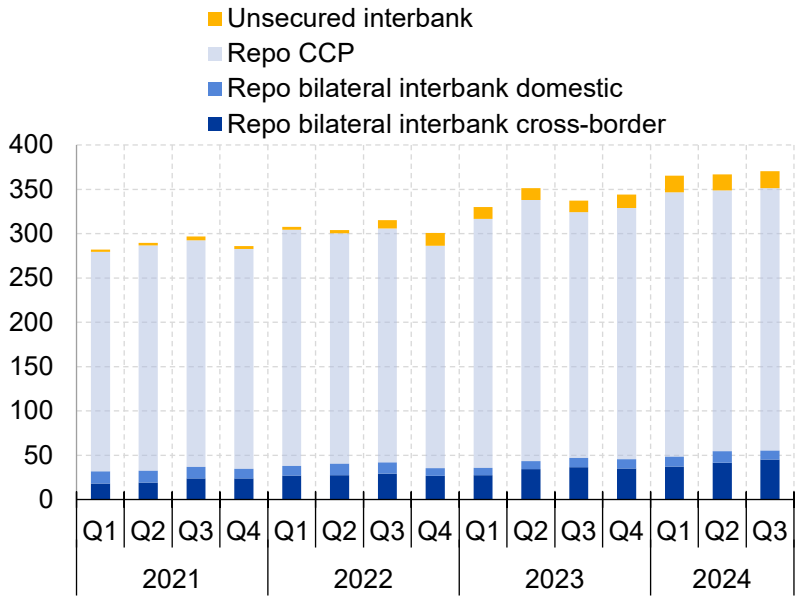



Source: MMSR.
Latest observation: 30 October 2024.
Note: Chart shows weekly volume-weighted average of repo rate - OIS spreads of secured transactions settling in Q4 and maturing in January of the respective following year. The size of the circles represents the relative total volume. Only repo transaction against securities issued by euro area governments and with rates deviating less than 100 bps from the OIS rates are considered. 1-day transactions settling at the last day of the year, transactions of MMSR wave 2 reporting agents and multiple recordings of evergreen are excluded.

# Notable pick-up in market-based funding with increasing redistribution across borders

## Borrowing volumes in euro area money market

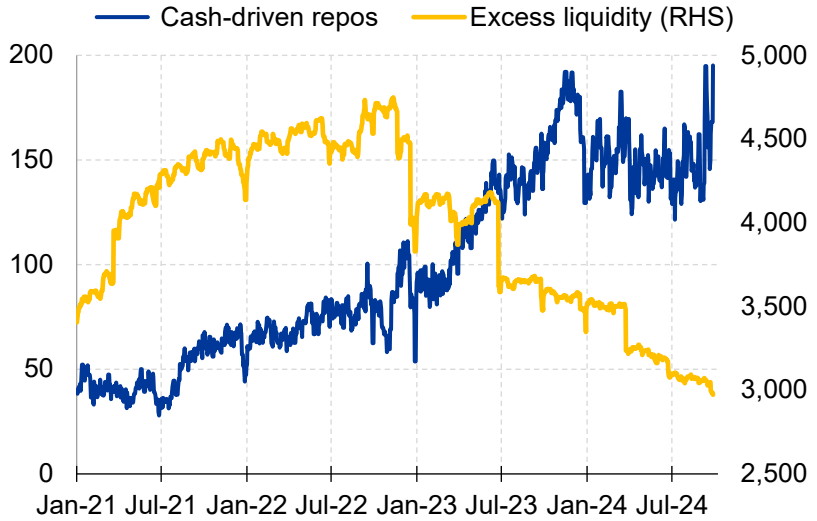
*(EUR billion)*




Sources: ECB, MMSR and ECB calculations..
Notes: Chart displays secured (repo) volumes based on MMSR reporting agents borrowing cash from euro area banks or from CCPs against any collateral. The bilateral volumes are further split between the domicile of the trade counterparties highlighting the cross-country distribution. Transactions with centrally cleared counterparties (CCPs) do not allow to identify the location of the ultimate counterparty or its sector, therefore might capture also trades with non-banks. Unsecured interbank trades capture activity between euro area banks which remain limited. For more details about activity in the different euro area money market segments, please see the Euro money market study.
Latest observation: 30 September 2024.

## Excess liquidity and outstanding volumes of liquidity-motivated repo transactions

*(EUR billion)*

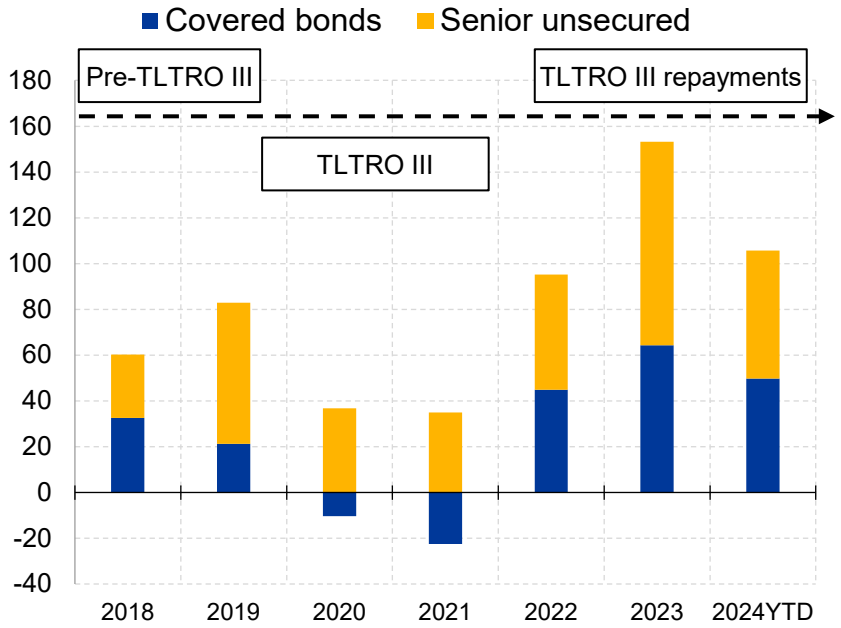



Sources: ECB, Securities financing transactions data, BrokerTec, Eurex, MTS and ECB calculations.
Notes: Chart displays liquidity-motivated (general collateral, GC) repo volumes based on BrokerTec/MTS one-day repo transactions and on Eurex GC pooling trades as reported in SFTD. Calculations are based on a single-counting approach.
Latest observation: 15 October 2024.

# Many banks invested excess reserves in covered bonds issued by their peers

## Net issuance of covered and senior unsecured bonds by banks

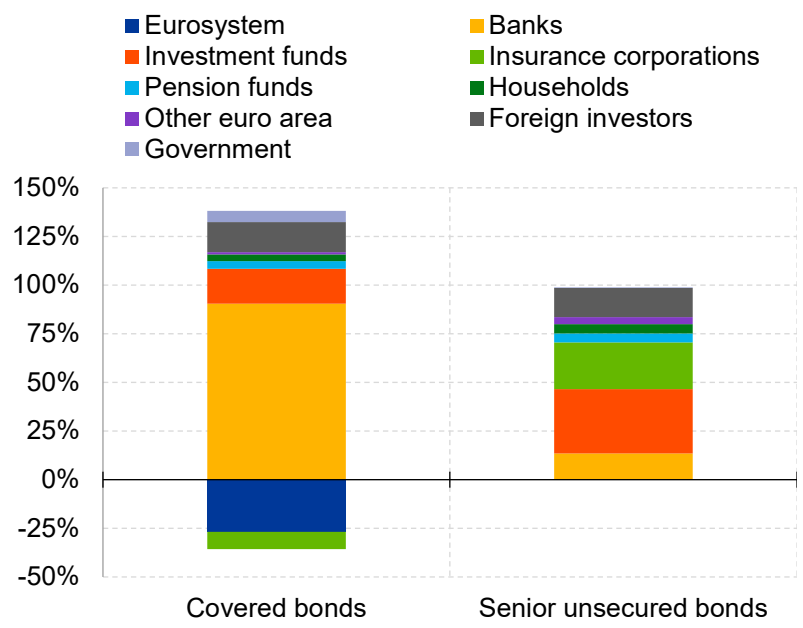
*(EUR billion)*




Sources: ECB, Dealogic and CSDB.
Latest observation: 31 October 2024.

## Net buyers/sellers of senior unsecured and covered bonds

*(% of total; from 2022 Q1 to 2024 Q2)*

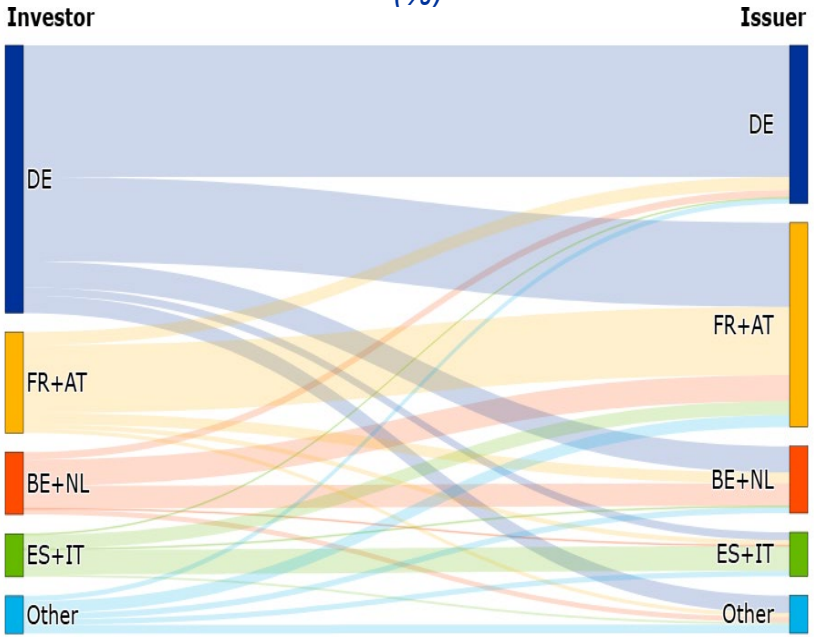



Sources: SHS and ECB
Latest observation: 30 June 2024.

# Covered bonds played an important role in reserve redistribution across countries

## Banks' investments in covered bonds: flow from investor to issuer by country group

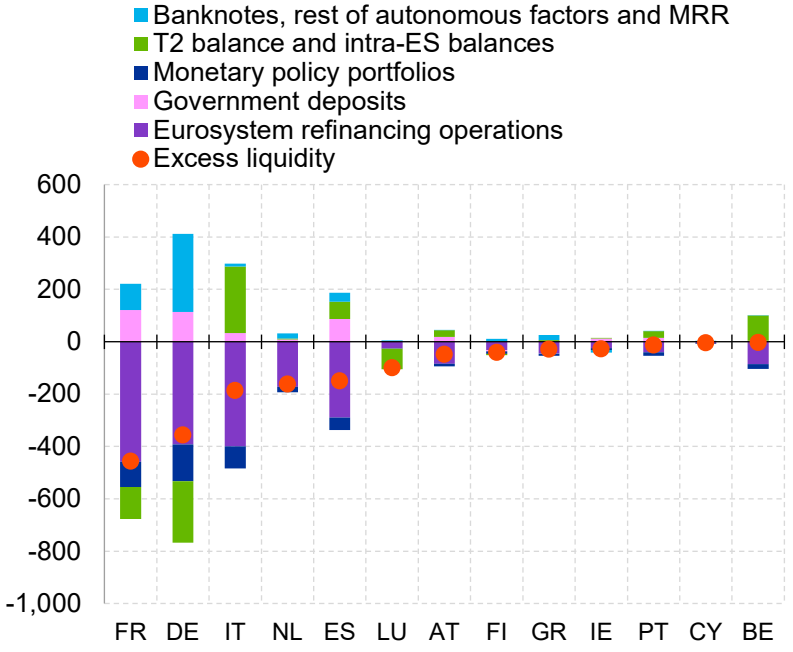
*(%)*




Sources: SHS and ECB internal.
Notes: Covered bonds issued between end of 2021 to Q2 2024. The chart shows the estimated investment in covered bonds by banks according to issuer and investor jurisdiction.

## Change in excess liquidity components

*(EUR billion; 30 September 2024 - 1 January 2022 )*

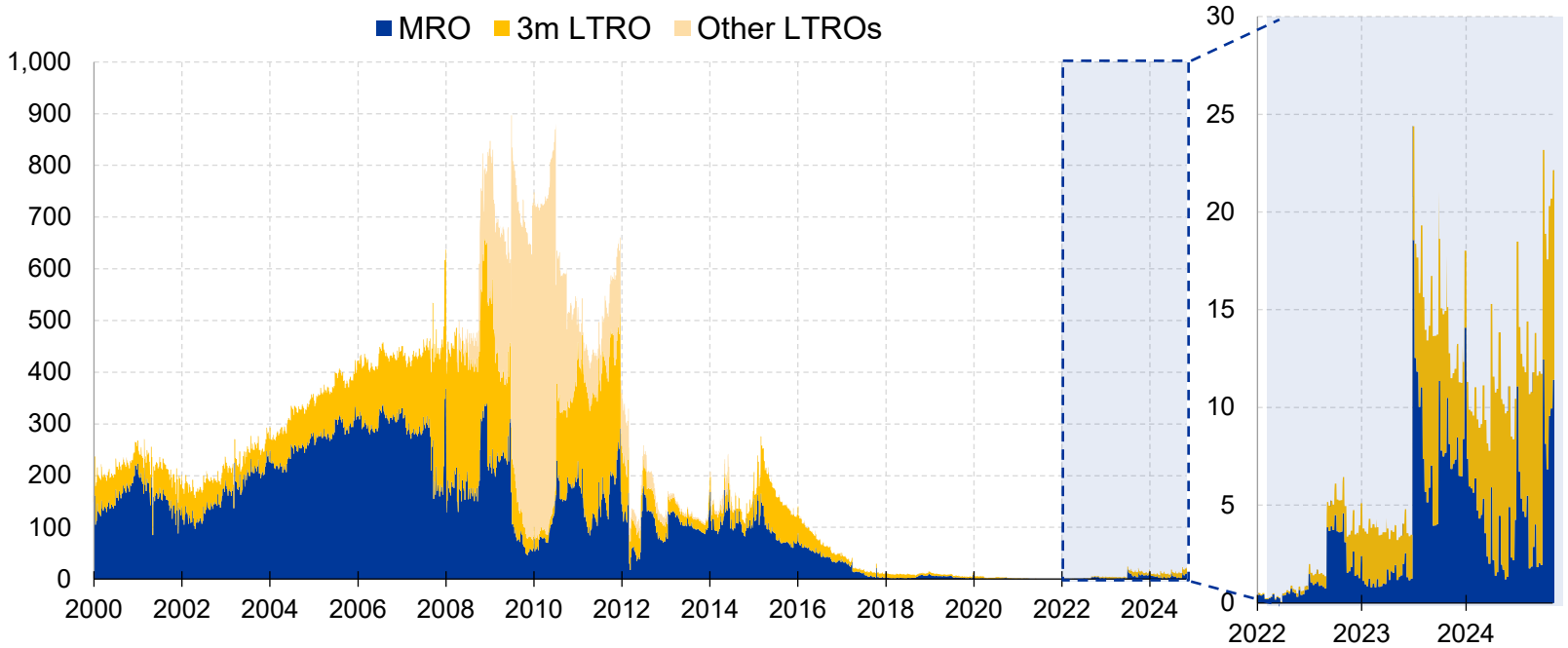



Source: MMSR.
Notes: Euro area countries with a reduction in excess liquidity of less than 2 EUR bn are excluded. Rest of autonomous factors includes the following items: net assets denominated in euro, net foreign assets, items in course of settlement and other autonomous factors.
Latest observation: 30 September 2024.

# Limited recourse to ECB standard refinancing operations so far

## Euro area banks' recourse to standard refinancing operations

*(EUR billion)*

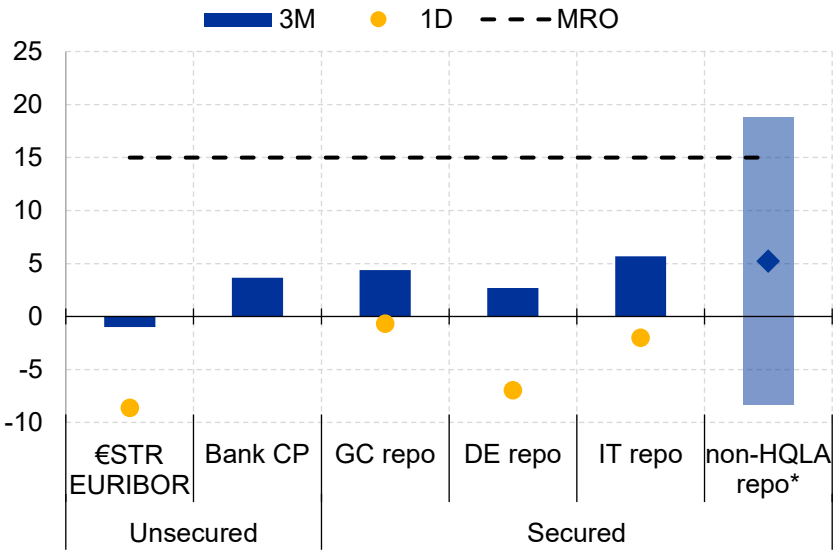



Sources: ECB and ECB calculations.
Notes: Main refinancing operations (MROs) refer to one-week liquidity-providing operations in euro. Long-term refinancing operations (3m LTRO) refer to three-month liquidity-providing operations in euro. Other LTROs refer to 1-month, 6- and 12-months liquidity-providing operations in euro.
Latest observation: 30 October 2024.

# Market funding remains more attractive, while the share of reserves in HQLA declines

## Attractiveness of money market rates vs borrowing at the MRO

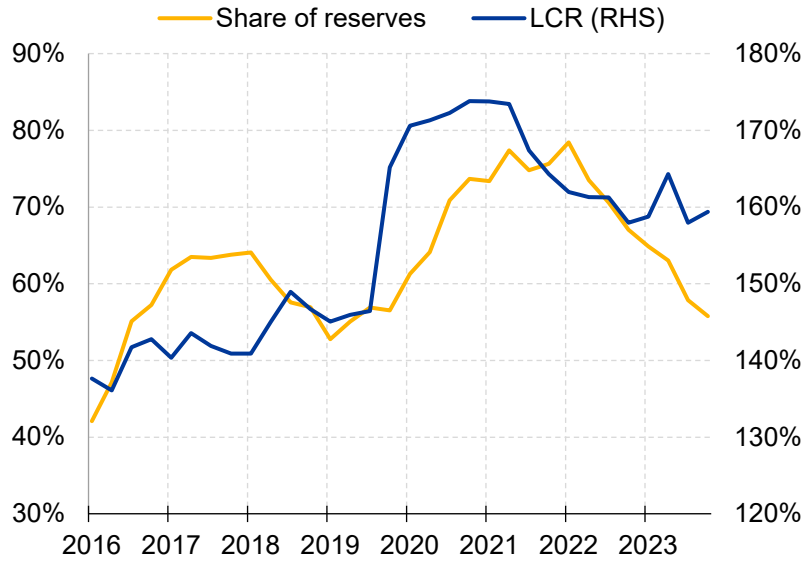
*(spread to DFR in basis points)*




Sources: ECB and ECB calculations.
Notes: The 1-day rates spread to the deposit facility rate (DFR) is captured by the yellow dots. The 3-month (3M) rates are adjusted for the 3M €STR OIS and the €STR-DFR spread to show the relative yield over the market-implied DFR over the next 3M. The repo rate against non-HQLA is based on an estimation, which includes all trades with maturity 1 to 3 months and matches it to the OIS. The central estimate is captured by a blue diamond with 90% confidence intervals depicted by the light blue bar.

## Liquidity coverage ratio (LCR) and share of reserves in HQLA

*(percentage)*

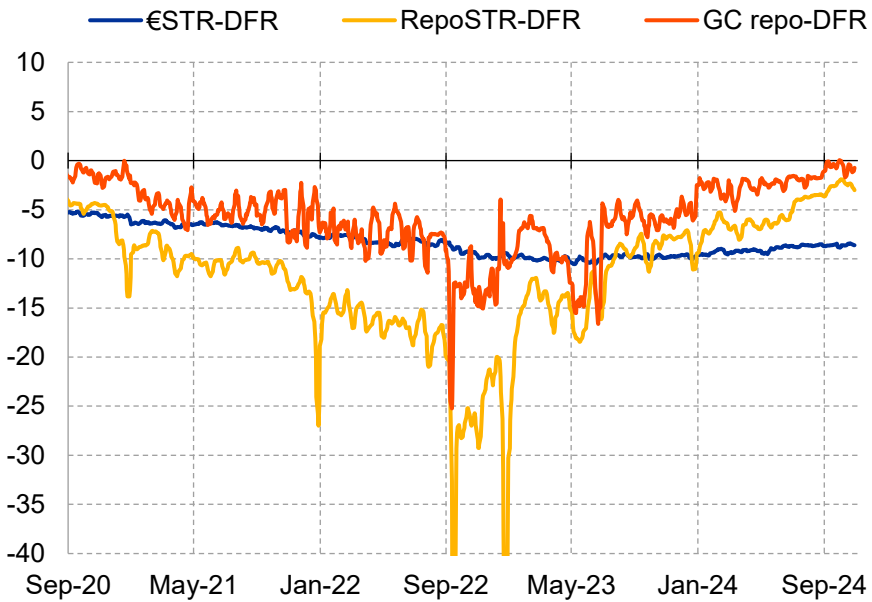


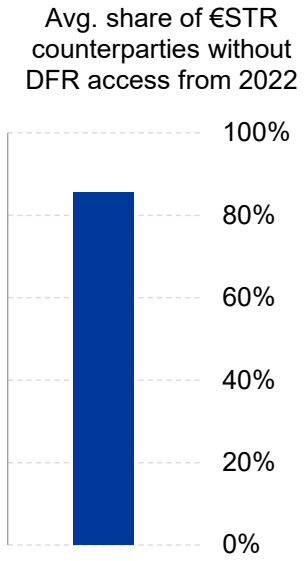

Source: ECB.
Latest observation: Q2 2024.

# Low responsiveness of €STR to declining excess liquidity reflects regulatory factors

## Spread of overnight money market rates to DFR

*(basis points, change since Sep-2023 and Sep-2022)*



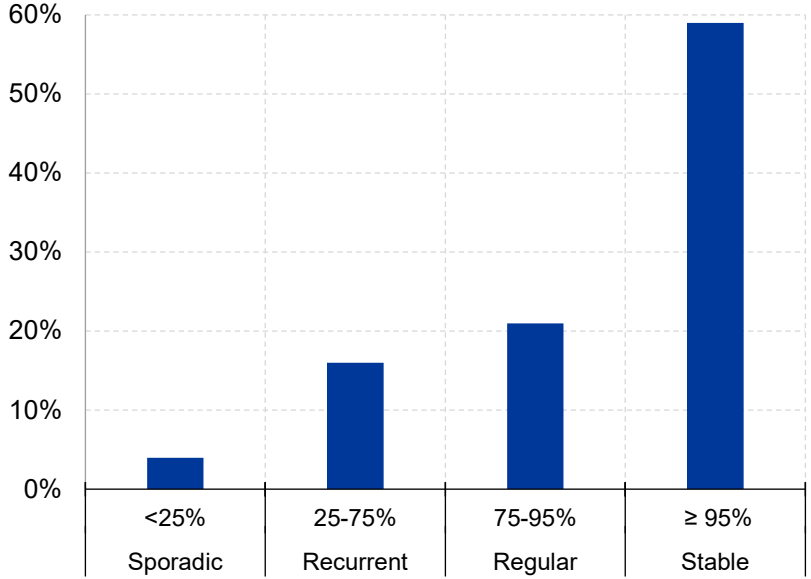




Sources: MMSR, Bloomberg and ECB calculations.
Notes: Smoothed 5-day moving averages excluding the month-ends. RepoSTR is a methodological equivalent for €STR benchmark based on secured transactions against government collateral with 1-day maturity. The RHS chart shows the average share of €STR counterparties without DFR access. This is calculated as the average daily share of €STR volume with non-bank counterparties from 1 January 2022 until 25 October 2024.
Latest observation: 4 November 2024.

# Trades in unsecured money market are typically relationship-based

## Average daily €STR volumes by the frequency of the lender-borrower trading relationship

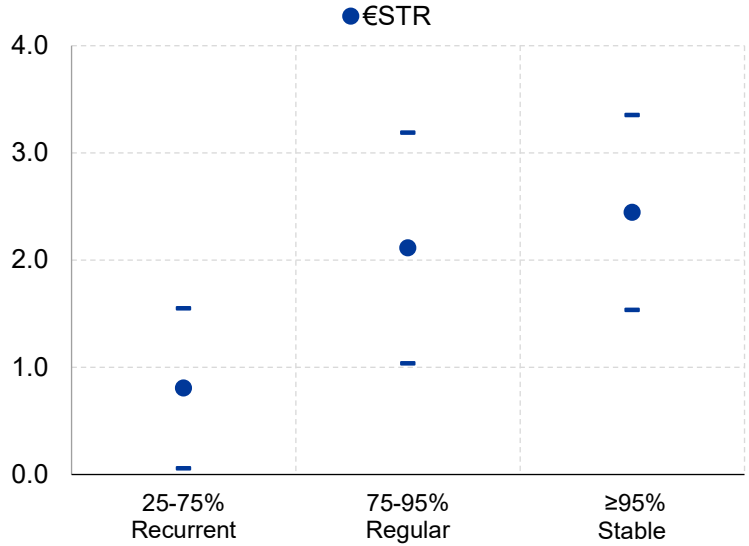
*(% of total volume)*




Sources: MMSR and ECB calculations.
Notes: €STR transactions are classified based on the frequency of the cash lender-borrower pair trades within each calendar month. Percentages and the respective interaction categories indicate the share of business days during which lender and borrower pairs transacted with each other in a given month. For example, in a month with 20 business days, lender-borrower pairs that transact on less than 5 days are categorised as "Sporadic", 5-14 days as "Recurrent", 15-18 days as "Regular" and pairs that transacted on 19 or 20 days out of the 20 are categorised as "Stable".

## Difference in unsecured rates by lender-borrower relationship relative to sporadic trades

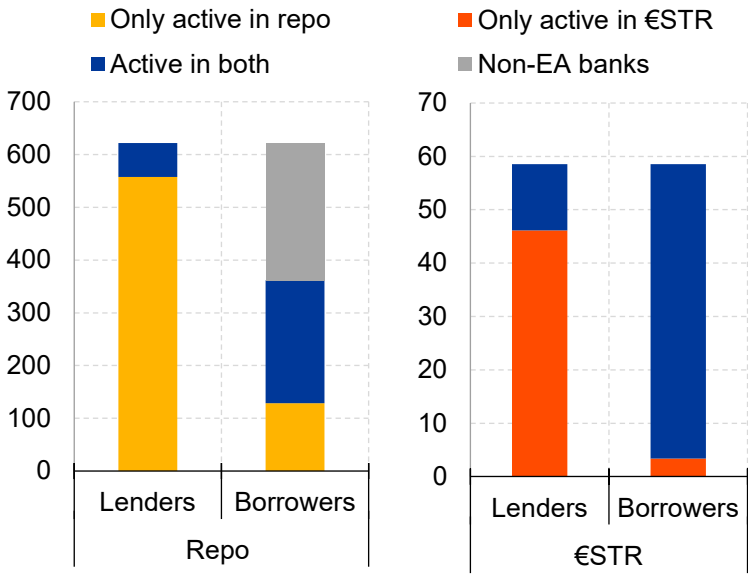
*(basis points)*




Sources: ECB (MMSR), SFT and ECB calculations.
Notes: Coefficients and 95% confidence intervals from regressing transaction rates spread to DFR in the unsecured segment on frequency of days when borrower-lender relationship was active within each month, interaction with reporting dates and transaction volume. Fixed effects control for lender demand-month, collateral-month (specialness), borrower and time fixed effects to isolate the effects of relationship on trade pricing.

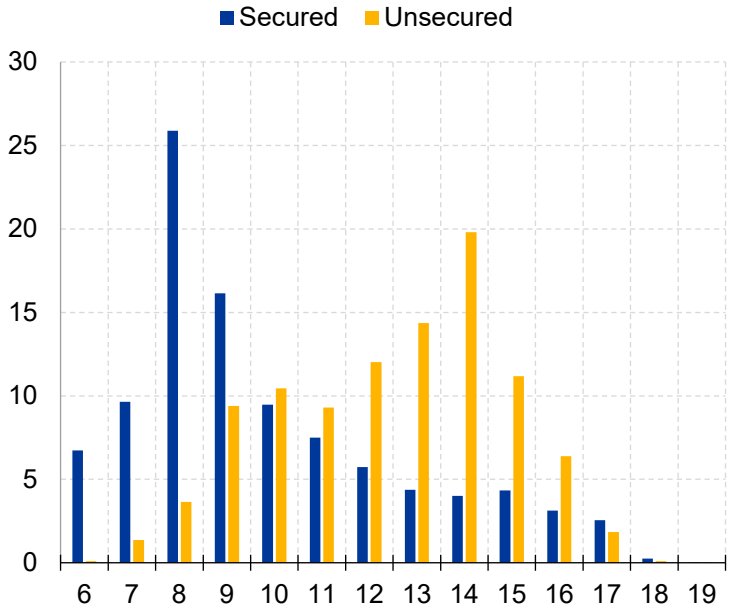
# Banks enjoy pricing power as secured and unsecured markets are segmented

## Volume of transactions by lender and borrower activity in money markets
*(EUR bn)*




Sources: ECB (MMSR) and SFTD.
Notes: Repo includes trades in 1-day secured transactions against government collateral. The activity is checked quarterly if each lender/borrower is active in both repo and €STR. Since only euro area largest banks are reporting in MMSR, the chart checks the transactions of euro area bank borrowers only in euro area, with the remaining greyed area corresponding to foreign banks or non-banks that do not count towards €STR.

## Share of daily trading volume per hour
*(%)*




Sources: MMSR and ECB calculations.
Notes: The timestamp of the trade is an optional field in MMSR, reported only in 20-25% of transaction volumes with 1-day maturity. SFT data shows a consistent picture with MMSR timestamps for repo trades.

# Thank you very much for your attention!