

Central bank liquidity: a macroeconomic perspective

Opening remarks

Annual ECB Conference on

Money Markets



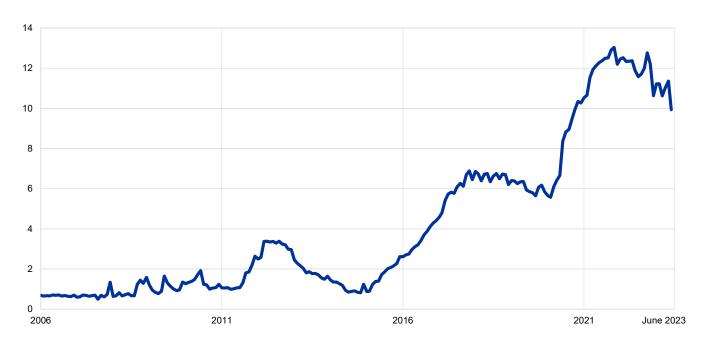
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Introduction

- Topic: role of central bank reserves in macroeconomic outcomes
- Sustained expansion of central bank reserves 2015-2022; shrinking since autumn 2022
- Disclaimer: assessing provision of central bank liquidity requires comprehensive analysis; wide array of monetary policy implementation options
- Recent central bank reserve creation by-product of quantitative easing and targeted lending programmes (monetary policy stance; financial stress); liability-side impact less studied
- Macroeconomic impact of transition away from "peak" central bank reserves
- Macroeconomic impact of structural level of reserves in "new normal" steady state

Bank reserves over total assets

(percentages)

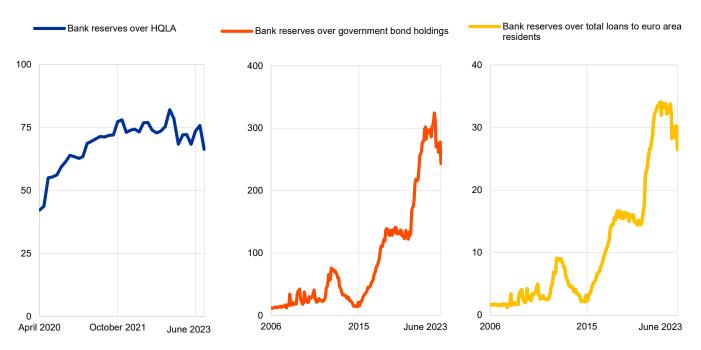


Sources: ECB (BSI) and ECB calculations.

Note: The latest observation is for the second quarter of 2023.

Euro area bank reserves relative to selected balance sheet metrics

(percentages)



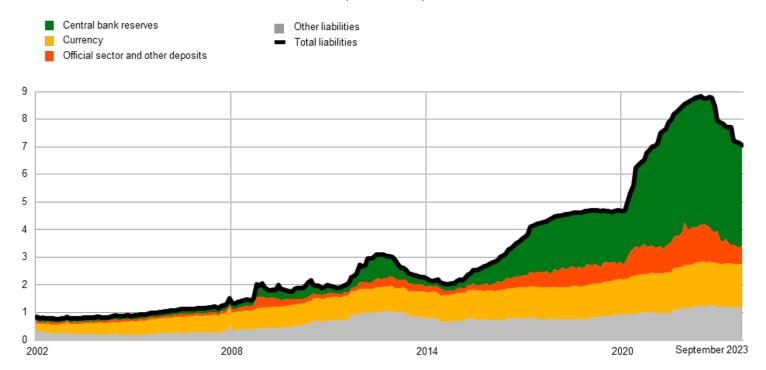
Sources: ECB (BSI, SUP) and ECB calculations.

Notes: High-quality liquid assets (HQLA) are computed as the sum of unadjusted amounts of level 1 and level 2 assets from supervisory data. Less significant institutions' HQLA in the second quarter of 2023 are based on data for the first quarter of 2023 and projected using the quarterly growth rate of significant institutions' HQLA. Bank reserves are the sum of bank deposits with the Eurosystem in both the deposit facility and current account. Government bond holdings refer to debt securities issued by the euro area general government sector and held by euro area credit institutions. Total loans to euro area residents exclude those to monetary financial institutions and correspond to those held on bank balance sheets (i.e. they are not adjusted for securitisation and cash pooling). The latest observations are for the second quarter of 2023.

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Eurosystem liabilities

(EUR trillions)

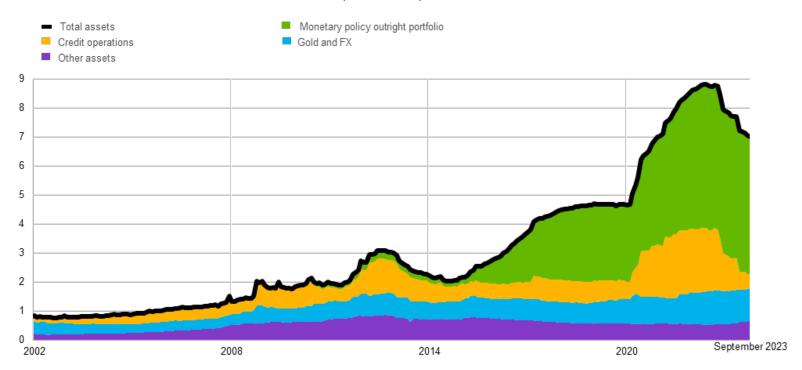


Sources: ECB (ILM) and ECB calculations.

Notes: "Currency" refers to liability item L1; "Central bank reserves" refers to reserve holdings in the current account and the deposit facility as well as any other liabilities to euro area credit institutions related to monetary policy operations denominated in euro (L2); "Official sector and other deposits" refers to the sum of liability items L3, L5 and L6; "Other liabilities" cover all remaining liabilities not included under the labelled categories, such as revaluation accounts, capital and reserves, and foreign currency liabilities. The latest observations are for 30 September 2023.

Eurosystem assets

(EUR trillions)



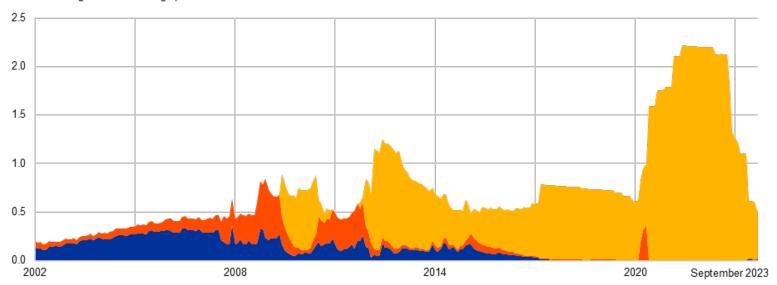
Sources: ECB (ILM) and ECB calculations.

Notes: "Monetary policy outright portfolios" refers to securities of euro area residents denominated in euro held for monetary policy purposes (A7.1), "Credit operations" refers to lending operations (A5 except A5.5 and A5.6), "Gold and FX" (A1, A2, A3) and "Other assets" (A4, A5.5, A5.6, A6, A7.2, A8, A10, A11) capture the remaining assets. The latest observations are for 30 September 2023.

Eurosystem credit operations by maturity

(EUR trillions)

- "Short-term" refinancing operations
- Medium-term refinancing operations
- "Long-term" refinancing operations

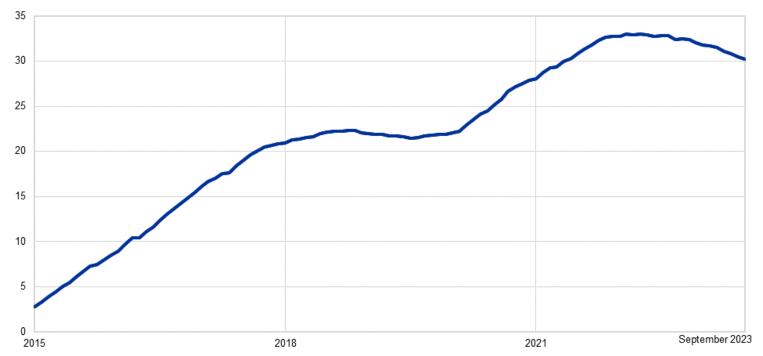


Sources: ECB (ILM) and ECB calculations.

Notes: "Short-term' refinancing operations" refers to main refinancing operations (A5.1), "Medium-term' refinancing operations" refers to to longer-term refinancing operations with original maturity below one year (part of A5.2), "Long-term' refinancing operations" refers to (targeted) longer-term refinancing operations with original maturity equal and above one year (remainder of A5.2). The latest observations are for 30 September 2023.

Eurosystem bond holdings relative to the eligible bond universe

(percentages)



Sources: ECB (Eligible Assets Database) and ECB calculations.

Notes: Eurosystem holdings comprise those of the asset purchase programme (APP), pandemic emergency purchase programme (PEPP) and Securities Markets Programme (SMP). The holdings and universe are denoted in nominal values. The range of bond maturities included in the eligible universe is from three months to 30 years. The latest observation is for 30 September 2023.

Recent experience

 In one direction, reserves as reinforcing impact of QE and targeted lending in easing monetary conditions (identification challenges)

 Portfolio rebalancing; increased holdings of reserves on durable basis; liquidity positions; incentives for credit creation

- In other direction, evidence from shift in monetary policy stance since December 2021
- Reduction in central bank reserves from repayment of TLTRO and end of APP reinvestments; increase in term premia and marked turnaround in credit dynamics to firms and households

Decomposition of changes in the ten-year nominal OIS rates since December 2021 (percentages)



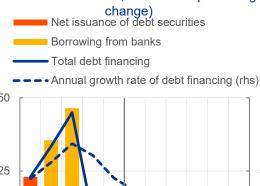
Sources: Refinitiv and ECB calculations.

Notes: The decomposition of the ten-year spot overnight index swap (OIS) rate into expected rates and term premium is based on an affine term structure model fitted to the euro area OIS curve. The estimation method follows Joslin, Singleton and Zhu (2011). The latest observations are for 30 October 2023.

Firm debt financing, credit standards and loan demand

Net debt financing flows of firms

(lhs: average monthly flows over the respective period in EUR billions; rhs: annual percentage



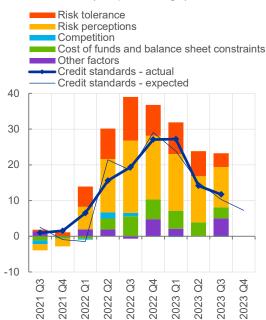
22 22 22 23 AprMayJun Jul AugSep Q1 Q2 Q3 Q4 Q1 23 23 23 23 23 23

Sources: ECB (BSI, CSEC) and ECB calculations.

Notes: The seasonal adjustment for the net issuance of debt securities is not official. MFI loans are adjusted for sales, securitisation and cash pooling. The latest observations are for September 2023.

Changes in credit standards for loans to firms and contributing factors

(net percentage)

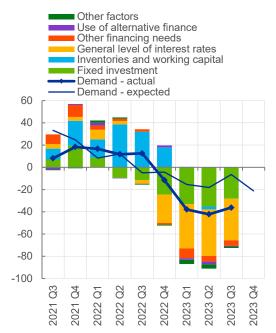


Source: ECB (BLS).

Notes: "Other factors" refer to further factors which were mentioned by banks as having contributed to changes in credit standards. The latest observations are for the third quarter of 2023.

Changes in demand for loans to firms and contributing factors

(net percentage)



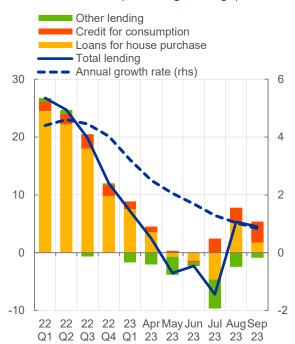
Source: ECB (BLS).

Notes: "Other financing needs" as unweighted average of "M&A and corporate restructuring" and "debt refinancing/restructuring and renegotiation"; "Use of alternative finance" as unweighted average of "internal financing", "loans from other banks", "loans from non-banks", "issuance/redemption of debt securities" and "issuance/redemption of equity". The latest observations are for the third quarter of 2023.

Households loans, credit standards and loan demand

Bank loans to households

(lhs: average monthly flows in EUR billions; rhs: annual percentage change)



Sources: ECB (BSI) and ECB calculations.

Notes: MFI loans are adjusted for sales and securitisation. The latest observations are for September 2023.

Changes in credit standards for loans to households and contributing factors

(net percentage)

Risk tolerance
Risk perceptions
Competition
Cost of funds and balance sheet constraints
Other factors
Credit standards - actual
Credit standards - expected

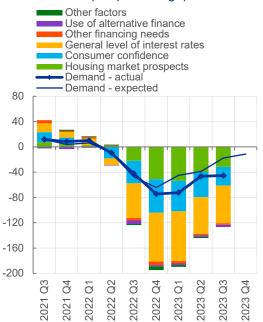


Source: ECB (BLS)

Notes: "Other factors" refer to further factors which were mentioned by banks as having contributed to changes in credit standards. The latest observations are for the third quarter of 2023.

Changes in demand for loans to households and contributing factors

(net percentage)



Source: ECB (BLS).

Notes: "Other financing needs" as unweighted average of "M&A and corporate restructuring" and "debt refinancing/restructuring and renegotiation"; "Use of alternative finance" as unweighted average of "internal financing", "loans from other banks", "loans from non-banks", "issuance/redemption of debt securities" and "issuance/redemption of equity". The latest observations are for the third quarter of 2023.

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Steady state

All else equal, appropriate steady-state level of central bank reserves increases in

- · Size of banking system
- Size of financial system and economy more widely
- Scarcity of safe assets
- Effectiveness of micro-prudential and macro-prudential regulation in curbing incentives of banks to engage in excessive balance sheet expansion and maturity transformation
- Mobility of deposits
- Policy prioritisation attached to minimising risk of hitting effective lower bound

Conclusion

- 1) Level of central bank reserves in steady state that is neither excessively-scarce nor excessively-abundant seems prudent.
- In steady state, central banks can provide reserves via a mix of a structural bond portfolio and short-term and longer-term refinancing operations.
- 3) Provisions of central bank reserves should be elastic in the event of macro-financial stress.
- 4) Sustained surges in central bank reserves may also occur in the future if return to ELB or in response to financial stress episodes.