Analysis

Structural operations will meet part of the banking system's liquidity needs in the future

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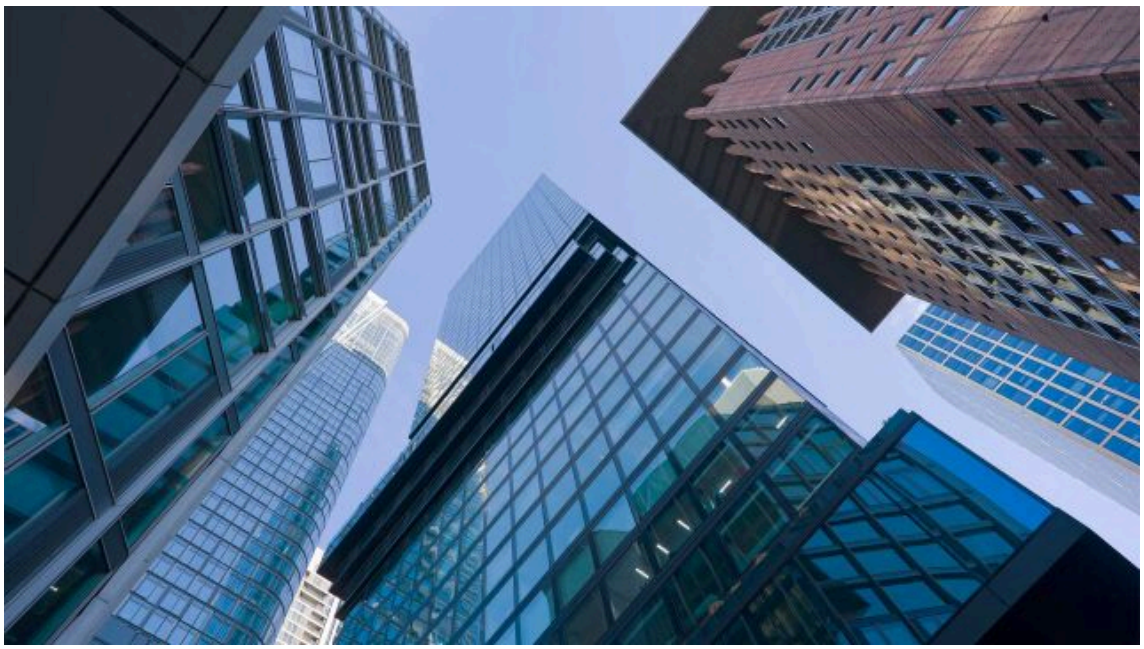


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The amount of liquidity in the banking system is represented by the deposits that commercial banks hold at the central bank, or central bank reserves. This liquidity has declined considerably in the euro area in recent years. There is nevertheless still an abundance of liquidity in the euro area banking system, whereas the demand for Eurosystem standard refinancing operations has remained low. As the assets acquired under the European Central Bank's (ECB) purchase programmes mature, central bank reserves will decline to a level that corresponds to the aggregate demand for liquidity in the banking system. Banks' demand for Eurosystem standard refinancing operations will then start to grow. Once demand has grown sufficiently, the supply of liquidity will be supplemented by structural refinancing operations, and asset purchases in a structural bond portfolio will begin. This article looks at the future role of structural operations and examines the potential features of these. The ECB's decisions on the specific features will be based on a review of the Eurosystem's operational framework for implementing monetary policy.

Bullet point summary produced with the assistance of AI

- The amount of liquidity in the banking system in excess of the minimum reserve requirement has been declining as anticipated, as longer-term refinancing operations and holdings under asset purchase programmes in the Eurosystem have been allowed to mature.
- As the aggregate amount of liquidity gradually declines, the need for liquidity in standard refinancing operations will grow. This increase in liquidity demand is likely to raise money market rates. Movements in these rates will be closely monitored by the Eurosystem.
- Once the demand for liquidity in standard refinancing operations has increased sufficiently, the supply of liquidity will be supplemented by structural operations, consisting of structural refinancing operations and bond purchases.



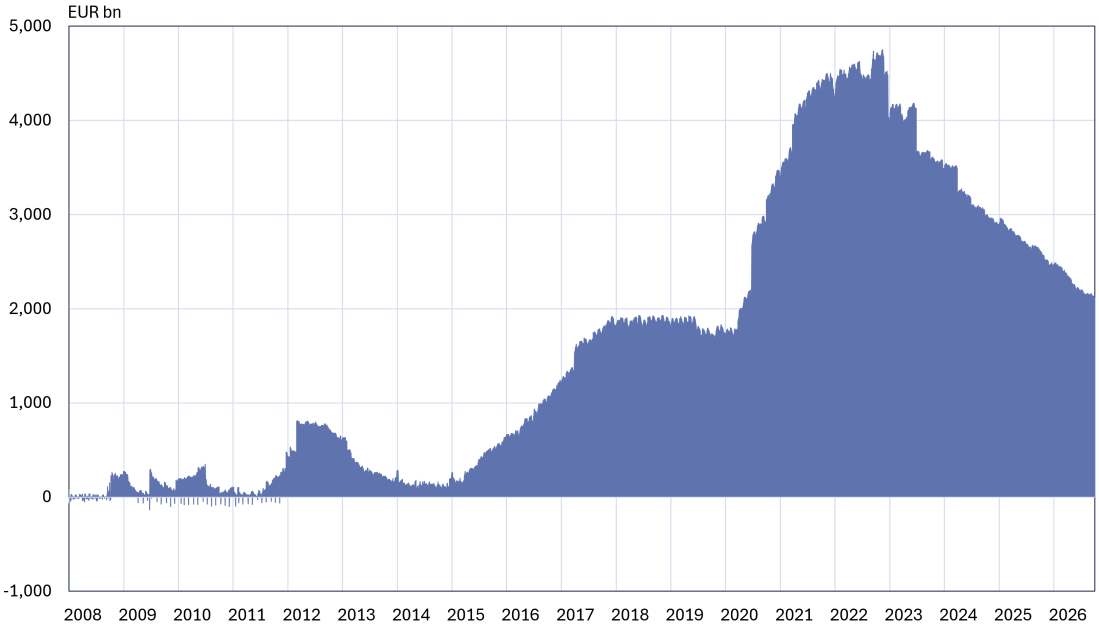
Liquidity in the banking system has been declining for several years

The volume of banks' central bank reserves began to grow in 2015 when the Eurosystem began its quantitative easing programme through large-scale asset purchases. In addition, targeted longer-term refinancing operations were conducted. The aim of these purchases and refinancing operations was to bring euro area inflation closer to the ECB's 2% target. Liquidity in excess of the minimum reserve requirement for the banking system (the amount of central bank reserves

exceeding the minimum reserve requirement) peaked at more than EUR 4,700 billion in November 2022. Since then, the amount of liquidity has been decreasing as anticipated, with longer-term refinancing operations and holdings under asset purchase programmes being allowed to mature as the Eurosystem's balance sheet normalises (Chart 1). The Eurosystem estimates that liquidity in excess of the minimum reserve requirement will fall below EUR 2,000 billion at the end of 2026, and to fall further to below EUR 1,500 billion at the end of 2027 unless banks' participation in the Eurosystem's refinancing operations starts to increase before then.[1]

Chart 1.

Banking system liquidity in excess of the minimum reserve requirement



Source: European Central Bank.

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Banks are currently using market-based funding solutions

The ECB's Governing Council updated, in March 2024, the operational framework for the implementation of monetary policy.[2] The key aim of the monetary policy framework is to steer short-term money market rates close to the ECB's main policy rate, which is the deposit facility rate. There is still an abundance of liquidity in the banking system overall, and banks that have borrowed additional liquidity have obtained it from the money market at a low interest rate close to or below the deposit facility rate. While the amount of liquidity is decreasing, the demand for liquidity will increase at some point, and since the ECB's lending rate is higher than the deposit facility rate, the demand growth will be likely to raise money market interest rates. The situation is being monitored and assessed closely by the Eurosystem.[3]

The level of liquidity at which money market interest rates start to rise is affected by many factors. These include the tightening of banking regulation since the 2008 global financial crisis, in particular the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR). The LCR and NSFR requirements guide the target levels for bank liquidity and funding and, in turn, the level of the liquidity buffer maintained by them and the financial instruments used in the money market. In addition, banks need liquidity for payment system needs, which have grown as a result of technological advances, such as the increasing use of instant payments.[4]

At present, major banks in the euro area actively use market-based funding instead of the central bank's refinancing operations. In particular, banks actively use the secured money market (repo market) as a source of short-term liquidity. In the money market, banks seek short-term liquidity or lend it to other money market participants against collateral. Despite the decreasing amount of liquidity, euro area repo rates have remained close to the level of the deposit facility rate in 2025 and 2026, although they have risen slightly.

Structural refinancing operations and bond portfolio purchases to be conducted in the future

Demand has so far been low for the standard refinancing operations offered by the Eurosystem, i.e. the weekly one-week main refinancing operations (MROs) and the monthly three-month longer-term refinancing operations (LTROs). In such standard refinancing operations, banks can seek funding from the Eurosystem against collateral. The Eurosystem estimates that demand for standard refinancing operations will grow gradually when purchase programme holdings have matured sufficiently and the amount of liquidity in the banking system has fallen to a level that corresponds to the aggregate demand of the banking system. Once demand for the current standard weekly and three-month refinancing operations has increased sufficiently, the supply of liquidity will be supplemented by structural operations, consisting of structural refinancing operations and bond purchases. The exact timing and conditions for launching structural operations have not yet been determined.

Structural operations will meet part of the banking system's structural (long-term) liquidity demand. In other words, it is not the aim of structural operations to meet the short-term liquidity demand of banks, as this will continue to be taken care of via standard refinancing operations. In conjunction with the March 2024 changes to the operational framework for implementing monetary policy, the ECB announced that structural operations would contribute to covering the banking sector's structural liquidity needs arising from autonomous factors[5], such as banknotes and government deposits, and minimum reserve requirements. In principle, structural operations

could also partly meet long-term demand for liquidity that arises from, for example, the regulatory liquidity buffer requirements mentioned above, especially if this demand turns out to be substantial.[6] In any case, structural operations will ensure that the provision of liquidity is not based solely on refinancing operations with short maturities. Using only short-term standard refinancing operations could cause unnecessary fluctuations in the amount of liquidity and even excessive growth of standard refinancing operations.

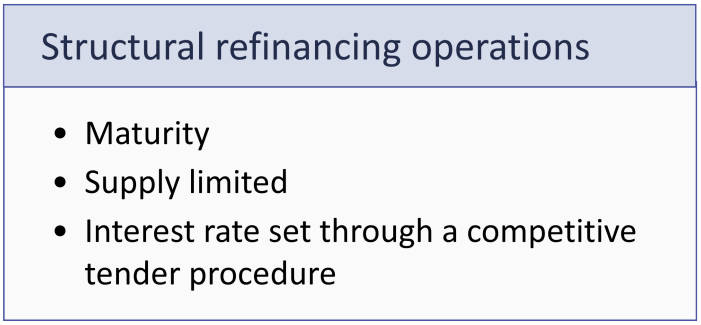
Structural operations are not intended to influence interest rate steering or the monetary policy stance. They are a response to the structural liquidity demand in the banking system and will be kept at a level which, in conjunction with the liquidity provided by standard refinancing operations, allows market interest rates to stay close to the central bank's deposit facility rate. When designing structural operations, it is important to ensure the market neutrality of these operations. We discuss below at staff level a number of issues that should be considered in the design of such operations. Decisions on these aspects will be taken later by the ECB's Governing Council. In our discussion, we look first at structural refinancing operations and then separately at a structural bond portfolio.

What might structural refinancing operations look like?

The key features of structural refinancing operations that are to be determined are the maturity, the amount offered, the way in which the refinancing operation is conducted and the interest rate. Structural refinancing operations must be designed in such a way that they sufficiently encourage banks to participate and that their terms and conditions are clear from the perspective of market participants.

Chart 2.

Key features of structural refinancing operations



Source: Bank of Finland.
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The Eurosystem's current standard refinancing operations have one-week and three-month maturities. Since structural refinancing operations are designed to meet a long-term need for liquidity in the banking system, they could offer longer term refinancing, possibly with maturities of more than a year. At the same time, longer maturities could increase the attractiveness of this liquidity provision, as, under the capital and liquidity regulations for banks refinancing with maturities exceeding six months is included in available stable funding (ASF).[7] The sufficient attractiveness of the operations is important because without adequate demand, structural refinancing operations cannot reliably meet the banking system's long-term need for liquidity. One way to improve the attractiveness of the operations would be to include the option of early repayment. When the remaining maturity is, for example, six months, then under the regulatory framework such refinancing is no longer included in banks' available stable funding. On the other hand, the Eurosystem must assess whether a long maturity would affect bank lending or excessively crowd out banks' market-based funding.

The amount offered in structural refinancing operations must be carefully delimited to ensure that standard refinancing operations continue to play a role in interest rate steering and as a key source of liquidity in the future. This ensures that banks have a continuous incentive to participate in standard operations, which is also important in preventing any possible stigma associated with these operations. When structural refinancing is started, the amount offered must be increased gradually, as there is still considerable uncertainty surrounding banks' liquidity demand, and this may change over time. In addition, the supply of structural refinancing should be divided equally into several operations, to be arranged on a quarterly basis, for example.

A key factor in pricing structural refinancing is market neutrality, as the intention is not to influence the monetary policy stance through structural refinancing. When the amount of structural loans is limited, market neutrality is best achieved through a competitive variable rate tender procedure. This way, the interest rate on structural refinancing will not begin steering longer term market rates, but instead will be determined on the basis of prevailing market conditions.

A competitive variable rate tender procedure can be organised using, for example, the American or Dutch auction method. In the Dutch ('single rate') method, refinancing is granted up to the maximum for the operation, starting from the highest interest rate bid submitted by the banks, with each recipient bank paying the lowest accepted rate on its central bank credit. In the American ('multiple rate') method, the interest rate on the refinancing granted in the operation is directly determined on the basis of the rate bid submitted by the bank in question to the auction, i.e. the refinancing granted can have different interest rates.[8]

ⓘ Example using different auction methods

The key difference between the Dutch and American auction methods is the way in which the lending rate is determined on the basis of bids. In a Dutch auction, all lending is subject to the same interest rate, which is the lowest accepted bid (e.g. MRO + 0.2%). Under the American auction method, each accepted bid is allocated a separate rate. In the example, the bids accepted in the refinancing operation are MRO +0.5% and MRO +0.2%, and thus the weighted average interest rate for the operation is MRO +0.32%. Note that if the total amount of the bids does not equate to the operation's target, the lowest bid or bids will be accepted only in part, on a pro rata basis (in the example, Bank 2, EUR 300 million).

Chart 3.

Example using different auction methods

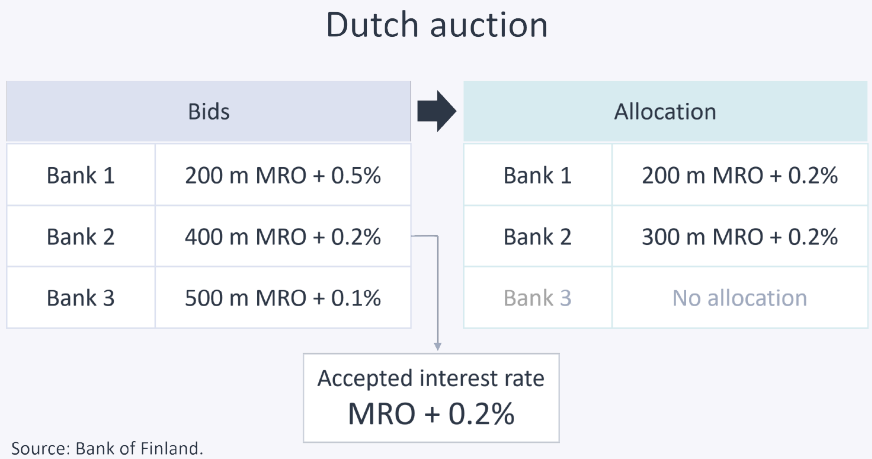
Dutch auction	American auction

• Maximum size of operation EUR 500 million
• Bids:
  • Bank 1: EUR 200 m, interest rate MRO + 0.5%
  • Bank 2: EUR 400 m, interest rate MRO + 0.2%
  • Bank 3: EUR 500 m, interest rate MRO + 0.1%
• Total bids: EUR 1,100 m
• Accepted bids:
  • Bank 1: EUR 200 m, interest rate MRO + 0.2%
  • Bank 2: EUR 300 m, interest rate MRO + 0.2%
  • Bank 3: not accepted
• Interest rate of operation: MRO + 0.2%
	• Maximum size of operation EUR 500 million
	• Bids:
	  • Bank 1: EUR 200 m, interest rate MRO + 0.5%
	  • Bank 2: EUR 400 m, interest rate MRO + 0.2%
	  • Bank 3: EUR 500 m, interest rate MRO + 0.1%
	• Total bids: EUR 1,100 m
	• Accepted bids:
	  • Bank 1: EUR 200 m, interest rate MRO + 0.5%
	  • Bank 2: EUR 300 m, interest rate MRO + 0.2%
	  • Bank 3: not accepted
	• Weighted average interest rate of operation: MRO + 0.32%

Source: Bank of Finland.

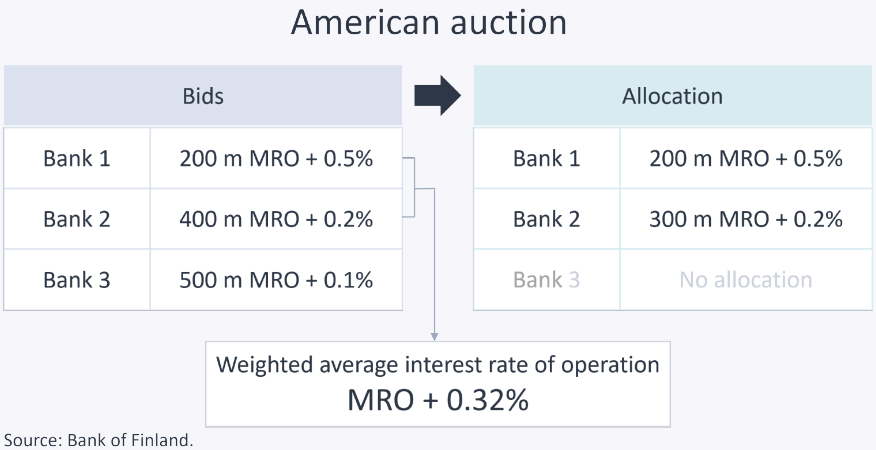
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Chart 4.



Source: Bank of Finland.
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Chart 5.



Source: Bank of Finland.
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In addition to market neutrality, the Eurosystem must consider the impact of the lending on the Eurosystem's own financial risks. From the Eurosystem's perspective, interest rate risks remain low when the interest rate is tied to one of the ECB's key interest rates. If would be natural that the lending is priced as, for example, an interest rate differential relative to the ECB's prevailing main refinancing operations rate. This would also increase the market neutrality of the refinancing from the perspective of bank funding. Additionally, this averts the problem that banks' participation in structural operations could become dependent on interest rate expectations, with participation more attractive to banks in times of rising interest rates than in a declining interest rate cycle. Other risks, including those related to counterparties and collateral, are handled

separately by the Eurosystem through risk management related to the collateral and counterparty framework.

What might a structural bond portfolio look like?

The key features of structural bond portfolios that are to be determined are the asset classes to be included, other bond-specific purchase restrictions, the maturity of the securities purchased and the size of the bond portfolio. Market neutrality is also a key factor in the design of structural bond purchases.

The market neutrality of a structural bond portfolio can be examined from at least two perspectives. One is that the portfolio is constructed in such a way that its composition and average maturity follow the structure of the bond market. The other is that in bond holdings a smaller market footprint could be achieved by purchasing bonds with shorter maturities. In this way, the impact of the bond holdings on financing conditions through, for example, a term premium would be smaller. A shorter maturity would also reduce the Eurosystem's financial risks. However, excessive emphasis on short-term maturities could affect money market interest rates. In both cases, the maturity of the purchased securities could be limited.

Experience with the Eurosystem's earlier monetary policy asset purchase programmes has boosted central bank know-how concerning which asset classes could be included in the structural bond portfolio. From the perspective of interest rate steering, the portfolio should primarily include public sector debt securities. Covered bank bonds could also be included in the structural portfolio, as their risk too is low and the market is well developed in Europe. Corporate loans are riskier and operationally more complex, but they can more clearly take into account climate factors. In March 2024, the Governing Council decided that it will aim to incorporate climate-related considerations into structural monetary policy operations. Asset-backed securities have not played a significant role in previous purchase programmes. Securities holdings could be managed in terms of countries by means of capital keys or – in relation to private sector bonds – in proportion to the amounts in circulation in the market.

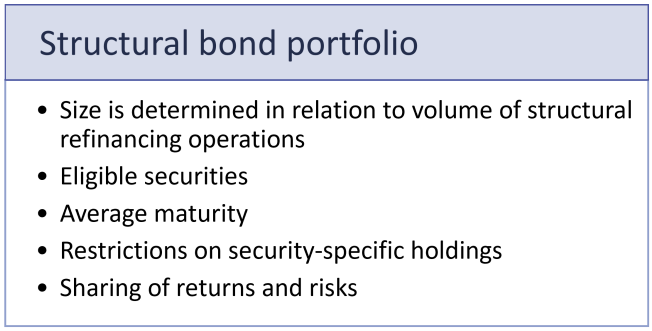
The Eurosystem's existing securities holdings from earlier purchase programmes and the Eurosystem national central banks' own investments should be considered when determining the size of the structural portfolio and the security-specific restrictions on holdings. The size of the structural portfolio must also be assessed in relation to its market footprint and the total amount of structural operations offered. The relative market footprint of the portfolio's direct holdings would almost inevitably be greater than that of the structural refinancing operations. This is especially because, in the bond portfolio, the Eurosystem decides which assets are acquired and bears the credit risk and interest rate risk. In the case of refinancing operations, by contrast, banks

decide which assets they provide as collateral within the framework of the ECB's rules and primarily carry the associated financial risk. The Eurosystem's credit risk is low with respect to the refinancing operations, as even in the event of a bank's insolvency, the operations are secured by the collateral. Collateral is also subject to risk-management measures, such as haircuts and market pricing. Furthermore, the refinancing operations do not include any interest rate risk if their rates are linked to the key interest rate.

It is also important to take account of market neutrality when deciding on security-specific ownership restrictions. In the public sector purchase programme (PSPP) implemented by the Eurosystem in 2015–2022, security-specific purchases were limited to a maximum of 33% of the stock issued for each security. In the PSPP, the security-specific ownership restriction was set at a fairly high level, as the purchases were explicitly aimed at affecting the price and interest rate of the securities purchased in order to ease financing conditions. By contrast, in a structural portfolio, the aim is to minimise the market effects of the holdings. Thus, from the perspective of safeguarding market neutrality, the security-specific ownership restrictions on holdings could be lower than previously used. The Eurosystem's maturing securities holdings will continue to affect the number of securities eligible for purchase for a long time to come. On the other hand, the structural portfolio will be established on a gradual basis while existing holdings mature, meaning that the impact of existing holdings on the volume of purchases made in the structural portfolio might in the end be limited.

Chart 6.

Key features of a structural bond portfolio



Source: Bank of Finland.
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In conclusion

The euro area banking system is facing a new situation as liquidity continues to decline. The structural liquidity needs of banks are assumed to be greater than they were before the period of

quantitative easing that started in 2015. The liquidity needs of banks are currently determined by the tightened banking regulations in particular, and there is uncertainty over the level at which structural liquidity needs will stabilise. The Eurosystem anticipates growing participation in refinancing operations in the immediate years ahead and, when the situation is right, structural operations will be introduced to meet liquidity demand in the most efficient and market-neutral manner possible.

Notes

1. See e.g. speech by Isabel Schnabel, Member of the Executive Board of the ECB, 6 November 2025: Towards a new Eurosystem balance sheet. ↑

2. Press release of the Governing Council of the ECB, 13 March 2024. Changes to the operational framework for implementing monetary policy. ↑

3. The Bank of Finland Bulletin article by Herrala, Paavola and Tötterman entitled 'Interest rate steering as liquidity declines' examines more closely how interest rates will be steered in the new liquidity environment. ↑

4. Liquidity demand in evolving payment systems is examined in the article 'Developments in digital finance will reshape monetary policy implementation and central bank services' by Kaisa Liikkanen, Joonas Koukkunen and Katri Järvinen. ↑

5. Autonomous factors are factors that increase or decrease liquidity in the banking system but cannot be directly affected by monetary policy. These are principally banknotes in circulation, deposits in the Eurosystem by euro area countries and supranational institutions, deposits in the Eurosystem by non-euro area countries, and own investments of euro area central banks. ↑

6. See also the speech by Tuomas Välimäki, Member of the Board of the Bank of Finland, 26 November 2025: Central bank liquidity and balance sheet: navigating the shallows after the high tide of liquidity. ↑

7. As a result of the Basel III regulations, banks are subject to a net stable funding ratio (NSFR) requirement, which means banks have to maintain sufficient long-term and stable funding relative to their assets, such as long-term lending and investments. ↑

8. From June 2000 until the October 2008 adoption of the fixed rate full allotment (FRFA) method, the Eurosystem conducted its refinancing operations by means of a competitive tender using the American auction method (see e.g. Switch to variable rate tenders in main refinancing operations: some technical details). ↑

Keywords

banking system, central bank deposits, liquidity, monetary policy implementation, monetary policy implementation, structural operations