Norges Bank

Consultation note – Issuance of central bank certificates

The consultation note sets out the background to Norges Bank's decision to use central bank certificates as an instrument in liquidity management. Part 1 of the consultation letter explains how Norges Bank manages liquidity in the banking system in order to attain its liquidity policy objectives. Part 2 explains why structural liquidity has increased in recent years and how this affects attainment of liquidity policy objectives. Part 3 discusses different ways of withdrawing excess liquidity. Part 4 outlines how central bank certificates can be used in combination with the current liquidity management system. Part 5 lists the issues on which Norges Bank seeks input in order to help ensure that certificates are attractive to a broad set of investors and that the market for central bank certificates functions well.

1. Norges Bank's liquidity policy objectives and the current liquidity management system

Norges Bank shall ensure low and stable inflation and promote financial stability and well-functioning markets. The liquidity policy shall facilitate the achievement of the overall objectives of monetary policy and financial stability.

Norges Bank's liquidity policy objectives are discussed in more detail in Norges Bank Papers 3/2021. The liquidity policy shall:

1) ensure efficient pass-through from the policy rate to market rates,
2) facilitate an efficient payment system,
3) enable Norges Bank to offer liquidity insurance and be the lender of last resort and
4) facilitate liquidity and credit risk being borne by private market participants in the financial system to the greatest extent possible.

Until 2011, Norges Bank used a so-called floor system to ensure that the policy rate passed through to market rates. In a floor system, all reserves are remunerated at the policy rate. Banks with excess liquidity then have little incentive to lend reserves to banks that need them for settlement purposes. There was therefore often a need for Norges Bank to supply more and more reserves to the banking system in order to ensure that the policy rate passed through to market rates. Therefore, the floor system contributed to little use of the money market to redistribute liquidity.[1]

In October 2011, Norges Bank introduced the current liquidity management system, known as the quota system.[2] Under the quota system, only a quota of each bank's overnight deposits in Norges Bank are remunerated at the policy rate. The excess is remunerated at the reserve rate, which is normally one percentage point below the policy rate. Banks with reserves in excess of their quota deposited at Norges Bank at the end of the day therefore have an incentive to lend reserves to other banks in the money market. Correspondingly, banks that have a negative position in Norges Bank at the end of the day must borrow from Norges Bank at the D-loan rate, which is one percentage point above the policy rate. These banks therefore have an incentive to borrow from other banks in the money market.

In the quota system, Norges Bank manages the total quantity of reserves in the banking system with a view to ensuring that money market rates are close to the policy rate. The target level of

[1] https://www.norges-bank.no/en/news-events/news/Submissions/2010/Submission-06-10-2010/

[2] For more information on the quota system, see The background for the system for managing bank reserves in Norway

Postal address P.O. Box 1179 Sentrum, NO-0107 Oslo
Visiting address: Bankplassen 2, Oslo
Phone: +47 22 31 60 00 www.norges-bank.nopost@norges-bank.no
Organisation number NO 937 884 117 VAT

reserves in the banking system is NOK 35 billion, with a target interval of +/- NOK 5 billion. When structural liquidity in the banking system (the quantity of reserves before Norges Bank's market operations) exceeds the interval, Norges Bank withdraws liquidity through F-deposits. When structural liquidity falls below the interval, banks are offered the option of borrowing reserves from Norges Bank through F-loans. By keeping the quantity of reserves stable, sufficiently below the sum of the quotas, Norges Bank facilitates that money market rates are trading close to the policy rate.

The quota system incentivises banks to redistribute reserves among themselves in the money market and to actively manage their liquidity risk. It also ensures that the banking system as a whole does not demand more reserves than the sum of the quotas, as this requires one or more banks to hold reserves remunerated at the reserve rate. The quota system has allowed Norges Bank to keep the quantity of reserves in the banking system at a stable level since 2011, and at the same time ensured that the policy rate passes through to market rates. In Norges Bank's view, the quota system has contributed to a better-functioning money market and strengthened the market's role in setting the price of liquidity.

2. Consequences of high structural liquidity for the liquidity policy objectives

Structural liquidity in the banking system has increased markedly since 2022, because government debt borrowing has over time been lower than the dividends transferred from Norges Bank and the government's actual borrowing requirement. Through 2025, funds from the government's treasury account in Norges Bank will also be returned to the GPFG.[3]

When the government transfers funds from its account in Norges Bank, structural liquidity increases. Banks receive central bank reserves on the asset side, matched by deposits on the liability side (Chart 1a). When banks have significant excess central bank reserves, they may have weaker incentives to manage their liquidity risk because they are able to meet unexpected liquidity needs to a greater extent by drawing on their reserves. This reduces the need to borrow reserves from other banks and weakens the use of the money market to redistribute liquidity. Furthermore, banks may then become less willing to pay to extend the maturity of their liabilities or hold other liquid assets to protect themselves against liquidity risk. A large supply of reserves in the banking system can therefore weaken the market's role in setting the price of liquidity, as was the case with the floor system up to 2011.

Chart 1a: *Effect of increase in structural liquidity, before Norges Bank's market operations.*[4]

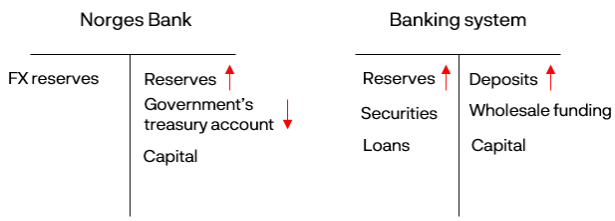
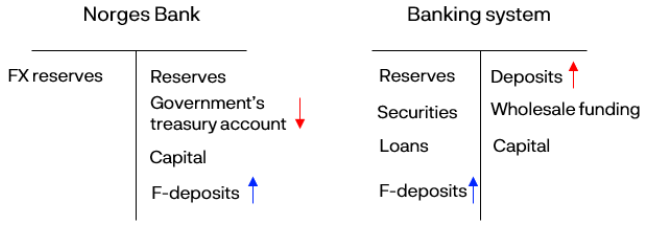


Chart 1b: *Effect of increase in structural liquidity, after withdrawal of liquidity through F-deposits.*



[3] See Recommendations from the working group on government transactions and the money market and Norges Bank Staff Memo 2/2024: Structural liquidity: What has driven the historical development and what might occur in the years ahead? for more detailed explanations of the reasons for the growth in structural liquidity.

[4] The chart illustrates an increase in structural liquidity as a result of the government disbursing money to the general public or money being returned from the government's account to the GPFG.

In Norges Bank's quota system, central bank reserves in excess of the target interval of NOK 35 billion will be withdrawn through F-deposits. The growth in structural liquidity has therefore led to an increase in F-deposits on banks' balance sheets (Chart 1b).

F-deposits usually have short maturities, and reserves tied up in F-deposits will soon become available to banks again. Short-term F-deposits therefore do little to strengthen banks' incentives to redistribute liquidity in the money market and actively manage their liquidity risk. F-deposits with short maturities can also be included in the calculation of banks' regulatory liquidity coverage ratio (LCR).[5] Withdrawal of liquidity through short-term F-deposits therefore does little to mitigate the consequences of having large reserves in the banking system when structural liquidity is high.

Growth in structural liquidity leads not only to an increase in banks' reserves or F-deposits on the asset side, but also to an increase in banks' customer deposits. On a day-to-day basis, this happens, for example, when the government makes payments or Norges Bank buys foreign exchange on behalf of the government: Norges Bank credits customers' banks with central bank reserves and banks credit their customers with deposits. On banks' balance sheets, an increase in central bank reserves or F-deposits are matched by an increase in customer deposits (Chart 1).

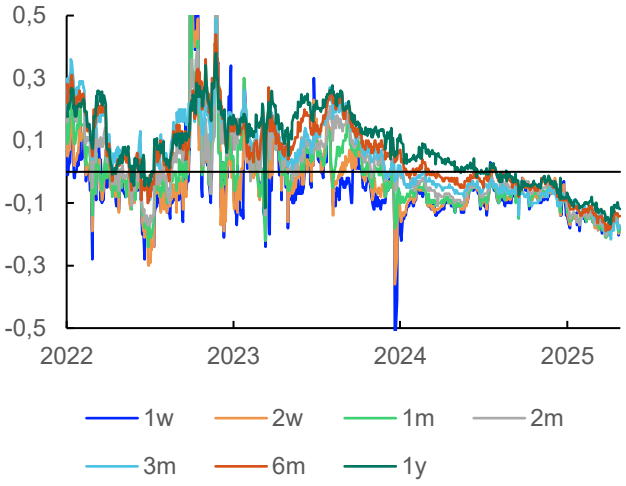
The general public may want to buy other assets instead of deposits to achieve a better return on their funds. However, since only banks can hold central bank reserves and F-deposits, increased structural liquidity does not lead to an increased supply of liquid assets that the general public can buy, other than investments with banks. In order to invest in assets other than deposits, such as securities, the general public must buy these assets from banks.[6] This pushes up the price of existing liquid investments. Alternatively, the general public can invest in debt instruments that banks themselves issue, such as term deposits or bank bonds. This contributes to lower risk premiums on banks' wholesale funding.

In summary, high structural liquidity affects risk premiums in the money market through two channels. The first is a supply-side channel. This arises when banks have a lot of reserves or F-deposits and thus have a diminished need to increase the maturity of their funding, thereby reducing risk premiums in the money market. The second is a demand channel. This occurs because the general public receives deposits in banks when structural liquidity increases. This contributes to increased demand for liquid investments and also reduces risk premiums in the money market.

The effects of high structural liquidity have been evident in the Norwegian money market in recent years. Money market premiums have reached very low levels in pace with increased structural liquidity (Chart 2). At the same time, unsecured interbank trading in the money market has fallen (Chart 3). Both developments indicate that banks have less need to insure themselves against liquidity risk and that they are less likely to redistribute liquidity among themselves in the money market.

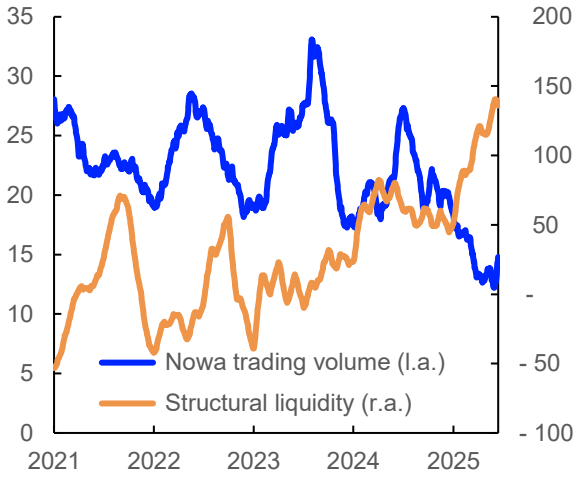
[5] F-deposits with a remaining maturity of less than 30 days count as an inflow in the denominator of the banks' LCR, while F-deposits with a remaining maturity of one day can count as a liquid asset in the numerator of the banks' LCR.
[6] If bought from each other, this only leads to a redistribution of deposits among the general public.

Chart 2: *Scarcity premium NOK vs USD in the fx-swap market.[7] Percentage points*



Sources: Bloomberg and Norges Bank

Chart 3: *Daily turnover in Nowa and structural liquidity.[8] Three-month moving average. In billions of NOK*



Source: Norges Bank

This shows that high structural liquidity weakens the attainment of Norges Bank's liquidity policy objective 4. By offering a larger quantity of liquidity that only banks can own, Norges Bank assumes more of the liquidity risk in the financial system. This weakens the attainment of the liquidity policy objective that liquidity and credit risk should be borne to the greatest extent possible by private financial market participants and may lead to banks taking more risk than they otherwise would have. High structural liquidity also affects the price of liquidity in the money and bond markets, which can weaken the market's role in allocating capital. Norges Bank therefore considers it necessary to implement measures to strengthen the attainment of its liquidity policy objectives.

3. Assessment of different measures to withdraw excess liquidity

Overall, Norges Bank can mitigate the effects of structural liquidity growth in two ways. The first is to make the reserves created when structural liquidity increases less available to banks, either through F-deposits with longer maturities or by introducing reserve requirements. The second is to replace a proportion of the reserves in the banking system with other types of liabilities, such as central bank certificates.

3.1. F-deposits with longer maturities

It is challenging to withdraw liquidity through F-deposits with longer maturities, especially maturities longer than one month. This is because banks' financial and regulatory liquidity coverage is weakened by placing liquidity in F-deposits with longer maturities.[9] Attempts to withdraw liquidity through F-deposits with longer maturities remunerated at the policy rate may cause banks to prefer

[7] FX OIS basis.
[8] Daily trading volume that is the basis for the calculation of Nowa
[9] When F-deposits have a remaining maturity of more than one month, they do not count as an inflow in the denominator in the calculation of banks' LCR. Banks' LCR will therefore weaken if they place money in F-deposits with a maturity of more than 30 days. This cost is in addition to the financial costs for banks in that they become less liquid the longer it takes for the F-deposit to mature.

to place liquidity at shorter maturities in the money market rather than in long-term F-deposits. This may threaten the transmission of monetary policy, as it will put downward pressure on short-term money market rates.

The withdrawal of liquidity through F-deposits at short maturities is consistent with the implementation of monetary policy but contributes little to Norges Bank's other liquidity policy objectives when structural liquidity is very high. In Norges Bank's view, it is therefore necessary to use other instruments to withdraw surplus liquidity ahead.

3.2. Reserve requirements

F-deposits depend on banks' active participation, but Norges Bank can also reduce the quantity of free reserves in the banking system by setting a reserve requirement. This means that banks must hold a certain quantity of reserves in Norges Bank. If banks have to meet the reserve requirement on a daily basis, the effective quantity of free reserves available to banks is reduced. Therefore, a reserve requirement can strengthen banks' incentives to manage their liquidity risk.

Reserve requirements reduce banks' holdings of free reserves, but do not increase the supply of assets that the general public can hold. High structural liquidity counteracted by reserve requirements will therefore only affect the consequences of high structural liquidity that result from banks having large reserves on their asset side, and not the effects of public demand for more liquid investments.

Reserve requirements will also entail costs for banks. Even if banks earn the key policy rate, reserve requirements will result in a reduction in their regulatory liquidity coverage without reducing the size of their balance sheets. Banks will therefore have to hold capital to meet the reserve requirement without being able to use of these reserves.[10] This may weaken banks' profitability over time, particularly if the reserve requirement is very high.

3.3. Central bank certificates

The issuance of central bank certificates entails Norges Bank issuing tradable securities that both banks and the general public can purchase. When Norges Bank issues central bank certificates, the quantity of free central bank reserves in the banking system is reduced. There will then be less need to withdraw surplus liquidity through F-deposits when structural liquidity is high.

Unlike F-deposits, central bank certificates can be traded. This means that banks can include the certificates in their holdings of liquid assets for regulatory purposes. Since central bank certificates are thus a closer substitute for central bank reserves than long-term F-deposits, central bank certificates can be issued with longer maturities and withdraw excess reserves for longer periods at a time than when liquidity is withdrawn through F-deposits. Although central bank certificates are liquid assets, they are not a means of payment. Should investors want to convert certificates into reserves or bank deposits, the private sector itself must contribute to creating liquidity. Central bank certificates are assumed to be well suited as collateral in, for example, the repo market.

Unlike central bank reserves and F-deposits, which can only be owned by banks, the public can also buy central bank certificates. By issuing central bank certificates, Norges Bank offers the general public an alternative to deposits in banks when structural liquidity is high. For banks to retain the deposits created when structural liquidity rises (Chart 1), they must offer investment alternatives at terms that can compete with central bank certificates. Issuing central bank certificates can therefore strengthen the market's role in setting the price of liquidity. However, this

[10] For the leverage ratio requirement, central bank reserves will be subject to the same requirement as other assets.

requires that central bank certificates are designed to be attractive investment alternatives for both banks and other investors.

In summary, there are several clear advantages to issuing central bank certificates to withdraw excess liquidity, compared with other instruments. By issuing central bank certificates, Norges Bank can withdraw excess liquidity for longer periods at a time. This strengthens banks' incentives to manage their liquidity risk. Issuing central bank certificates also increases the supply of liquid investments that are freely available to banks and the general public on equal terms. Through these channels, issuing central bank certificates helps strengthen the market's role in setting the price of liquidity when structural liquidity in the banking system is high.

4. How can central bank certificates be used in combination with the quota system?

Norges Bank will retain the quota system in the implementation of monetary policy and continue to manage short-term fluctuations in the banking system's liquidity with F-loans and F-deposits. Central bank certificates will be used in combination with the quota system to withdraw liquidity over longer periods.

Structural liquidity in the banking system fluctuates widely, and the certificate programme must be sufficiently flexible to take into account changes in the liquidity forecast. Among other things, it would be undesirable if issuance of certificates causes structural liquidity to fall to very low levels in the event of unforeseen changes in the liquidity forecast. Very low structural liquidity can create challenges in the implementation of monetary policy and entail costs for banks.[11] This may suggest that caution must be exercised in relation to how much liquidity is withdrawn through certificates at any one time, as well as in the choice of maturity of the certificates.

At the same time, it is desirable that the volume of issued certificates is predictable. Investors who want to use certificates to invest need to know how much they can invest in certificates over time and whether they will have the opportunity to buy new certificates when outstanding certificates mature. The maturity of the certificates also determines how often they must be rolled over, which can affect how attractive they are as an investment alternative. The number of different maturities at which the certificates are issued may also impact market liquidity in the secondary market.

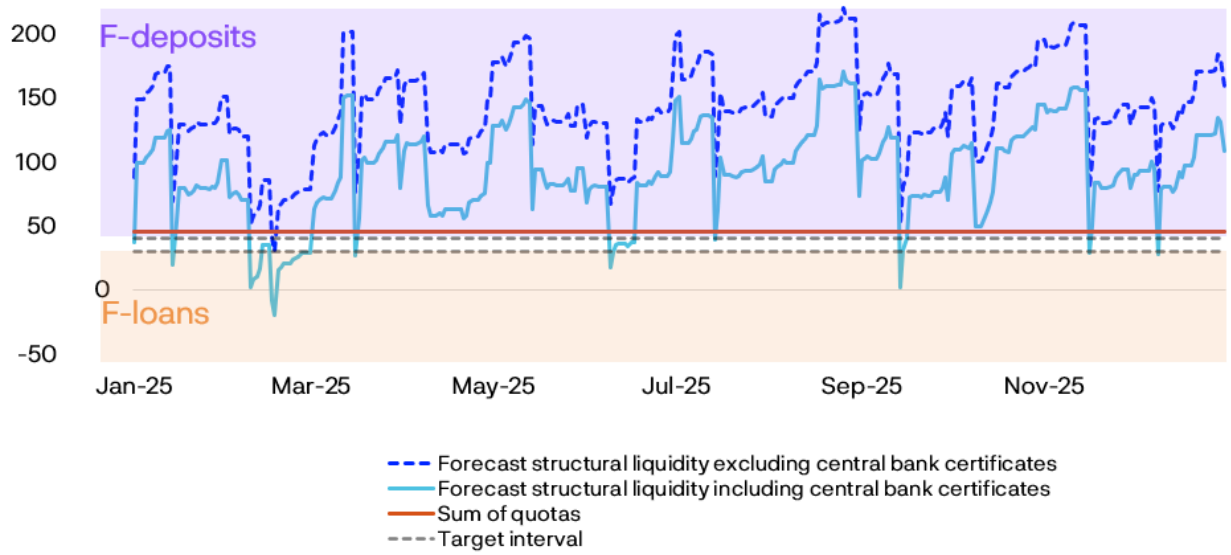
To ensure the pass-through to short-term money market rates, it is also desirable to avoid issuing large volumes of certificates on a single date. Large issuances of certificates can create uncertainty regarding each individual bank's liquidity position, as each individual bank will not always know how much their customers are investing in certificates. Even if new certificates mature on the same date, shifts in the banks' and their customers' demand can lead to changes in each individual bank's liquidity position. This may disrupt the pass-through from the policy rate to the shortest money market rates.

The different considerations suggest that certificates should be issued fairly frequently, such that maturities are spread out, and that scheduled issuance should be clearly communicated. More specifically, a certificate programme may, for example, involve weekly auctions of three-month certificates. The total volume can be increased to a level where a substantial share of the banking system's excess liquidity is withdrawn, without bringing the system down to a significantly negative position on individual dates. In this way, it will be possible to maintain a steady issuance volume, even in the event of significant changes in the liquidity forecast.

[11] See references in footnote 3 and Staff Memo 15/2023 – The turbulence in the Norwegian money market in autumn 2022.

Chart 5 shows how a certificate programme might look, in combination with the current quota system. The chart is based on the forecast from the beginning of 2025 for the banking system's liquidity in 2025 and illustrates how central bank certificates can be used in combination with F-loans and F-deposits to reach the target level of reserves after market operations. The chart shows a hypothetical situation in which Norges Bank has NOK 50 billion in certificates outstanding at the beginning of the year and maintains this volume throughout the year through weekly auctions. The dashed blue line shows the liquidity forecast excluding central bank certificates, while the solid light blue line shows the liquidity forecast including outstanding certificates.

Chart 5: *Illustration of liquidity in the banking system upon issuance of central bank certificates in combination with F-loans and F-deposits.*



Norges Bank must withdraw reserves through F-deposits when structural liquidity exceeds the target interval (purple shaded area) and supply reserves through F-loans when structural liquidity is below the target (orange shaded area). All other things being equal, the issuance of central bank certificates means that less reserves must be withdrawn through F-deposits. Depending on the quantity of certificates issued by Norges Bank, as well as developments in structural liquidity, this will also necessitate more dates on which F-loans are auctioned.

Norges Bank aims to start issuing certificates over the course of 2026. Further information on the design of the programme and the start date will follow once the input from the consultation has been taken into account.

5. Comments and input

The purpose of issuing certificates is to ensure that Norges Bank's liquidity policy objectives are met. Certificates may contribute to a better-functioning money market and strengthen the market's role in setting the price of liquidity.

To ensure that central bank certificates become an attractive investment option for both banks and other investors, Norges Bank requests market participants' input on the final design of the programme. Norges Bank seeks input on matters such as those listed below. Market participants are also encouraged to provide any other input that can help ensure both that the certificates become attractive and that the market functions well.

Certificates

- Maturities
- Listing at exchange
- Credit rating
- Interest rate type (fixed or floating, and, if relevant, floating reference rate)
- Day count convention
- Settlement days

Outstanding volumes and issuance

- Outstanding volume concentrated in one maturity or a larger range of maturities with smaller volumes
- Stable or fluctuating outstanding volume throughout the year
- Predictable issuance volumes
- Auction frequency

Distribution, sales platform and secondary market

- Auction platforms and how they affect participation in auctions
- Factors that are important for the proper functioning of the secondary market for central bank certificates (e.g. institutional conditions and technical solutions)