

ANALYSIS – Transmission of monetary policy to the money market

The money market is central for the Riksbank as it constitutes the first stage in the transmission of monetary policy. The rate increases in 2022–2023 had a rapid effect on rates in this market in a way that was expected.

The Riksbank intends to clarify its view of future securities holdings in Swedish kronor and how this affects the implementation of monetary policy, during the year. However, the starting point is still that a further normalisation of the balance sheet is desirable. Going forward, the money market will therefore be characterised by the banking system's liquidity surplus also declining. However, the banking system is expected to continue to have a significant surplus, and the Riksbank assesses that money market rates will continue to be stable close to the policy rate.

The money market is the part of the fixed-income market where instruments have a maturity of less than one year, and no coupon payments.¹⁷ This market is used by both financial and larger non-financial companies for short-term liquidity management and funding as well as for borrowing bonds. Examples of money market instruments include unsecured loans/deposits repos and FX swaps. In this analysis we focus on the part of the money market that has the shortest maturities.¹⁸ This can be seen as the market for liquidity balancing as it is here that short-term liquidity is balanced between agents with deficits and surpluses.

The market for liquidity balancing is important for the Riksbank as it constitutes the first stage in the transmission of monetary policy, primarily to establish the level of the policy rate. Via its operational framework, the Riksbank influences the incentive of its monetary policy counterparties to balance liquidity.¹⁹ Within the monetary policy operational framework, the Riksbank offers its monetary policy counterparties the option of borrowing or placing liquidity at the Riksbank. The cost of using the framework's facilities affects the rates on the money market as it offers alternative ways of acquiring or placing liquidity. These rates then propagate through the financial system, and ultimately affect the rates faced by households and businesses.

¹⁷ For more information on the money market in Swedish kronor, see the coming Staff memo (S. Colakovic et al. (2024), "The money market in Swedish kronor 2022–2023", *Staff memo*, Sveriges Riksbank.)

¹⁸ In this analysis we study primarily overnight loans and repos with maturities of up to a week as well as reference rates. However, FX swaps are also used to a great extent for short-term liquidity balancing.

¹⁹ There is one standing deposit facility and two standing lending facilities. These facilities have overnight maturity. For more information on the operational framework, see D. Hansson and I. Wallin Johansson (2023), "The Riksbank's monetary policy operational framework after the 2019–2022 reform", *Economic Review*, no. 2, Sveriges Riksbank.

An important link between the operational framework and the money market is the banking system's so-called liquidity position in relation to the Riksbank. These claims on the Riksbank are also known as central bank reserves and together with banknotes and coins constitute the monetary base, ("central bank money"). It is the liquidity position that determines the volume of central bank reserves available for the overnight liquidity balancing of the monetary policy counterparties.²⁰ The structural liquidity position is determined as a residual on the Riksbank's balance sheet. This means that the amount of central bank reserves that are initially outstanding is affected by other measures taken on the Riksbank's balance sheet, such as changes in the Riksbank's holdings of securities. Since 2008, the Swedish banking system has had a structural liquidity surplus towards the Riksbank. When monetary policy counterparties borrow liquidity from one of the Riksbank's standing facilities, the amount of available reserves also increases while the loan is outstanding. In addition, the Riksbank affects the liquidity position temporarily through its recurring market operations. At present, the Riksbank's regular market operations involve temporarily draining liquidity from the banking system by offering the opportunities to invest in Riksbank Certificates on a weekly basis. These are short-term promissory notes with a maturity of one week at the policy rate.

Pass-through from monetary policy in 2022–2023

Starting in April 2022, the Riksbank began a series of rate hikes (see Figure 12). At eight consecutive regular monetary policy meetings, the policy rate was raised by 4.0 percentage points in total.

In 2022–2023, the Riksbank made several other changes that affected the banking system's liquidity position and the money market.²¹ At year-end 2023, the liquidity position and investments in Riksbank Certificates amounted to SEK 987 billion. This can be compared to an all-time high of just over SEK 1,200 billion in May 2022. An important reason for the decline is the reduction of the Riksbank's asset holdings in Swedish kronor (see Figure 31). The distribution between the deposit facility and the investments in Riksbank Certificates has varied, however, as only half of the liquidity surplus was offered in issues during 2022 and the beginning of 2023 (see Figure 11). Despite the Riksbank now offering the entire surplus, the monetary policy counterparties normally let central bank reserves of an average of SEK 150 billion remain available overnight.²² Thus, in 2022–2023 there have consistently been ample central bank reserves left in the market overnight, which has pushed down the rates on unsecured transactions (loans/deposits) with very short maturities towards the

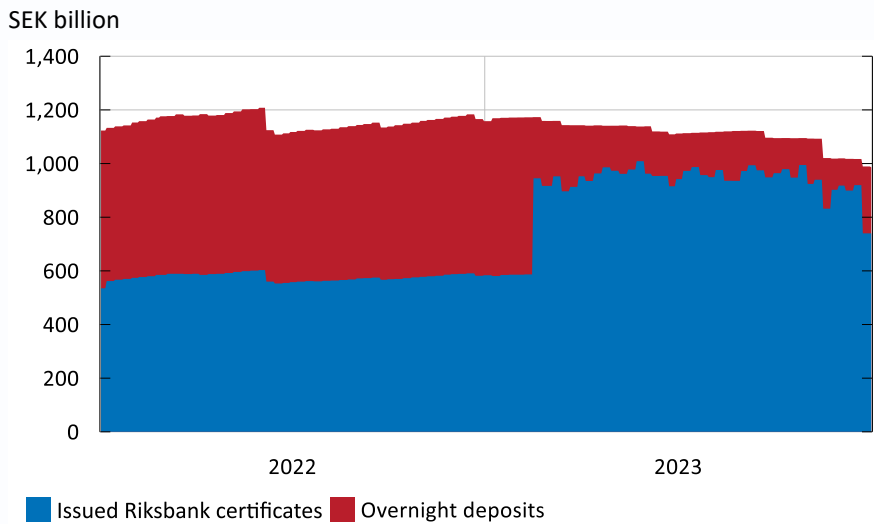
²⁰ Central bank reserves also have an important function in managing payment flows during the day in the central payment system. Participants in the payment system can also borrow reserves overnight from the Riksbank in exchange for eligible collateral.

²¹ In June 2022, the reforms of the monetary policy operational framework were completed. As of February 2023, the entire liquidity surplus is offered in issues of Riksbank Certificates. Moreover, the Riksbank has gone from buying bonds to allowing bond holdings to decline through bonds maturing and the selling of government bonds. The transition to a self-financed foreign exchange reserve also increased the liquidity position as loans from the Swedish National Debt Office were replaced by monetary policy debt.

²² The central bank reserves not drained remain accessible for liquidity balancing overnight. As of February 2023, on average SEK 147 billion has been saved, based on the auctions up to the end of May 2024.

Riksbank's deposit rate.²³ The plentiful availability of liquidity is also assessed to have helped push down the repo rates. Repos in the Swedish money market normally use government bonds and covered bonds as collateral. When the Riksbank's holdings of these has declined, the amount of available collateral on the repo market has therefore also increased.

Figure 11. Placements in the deposit facility and in Riksbank certificates



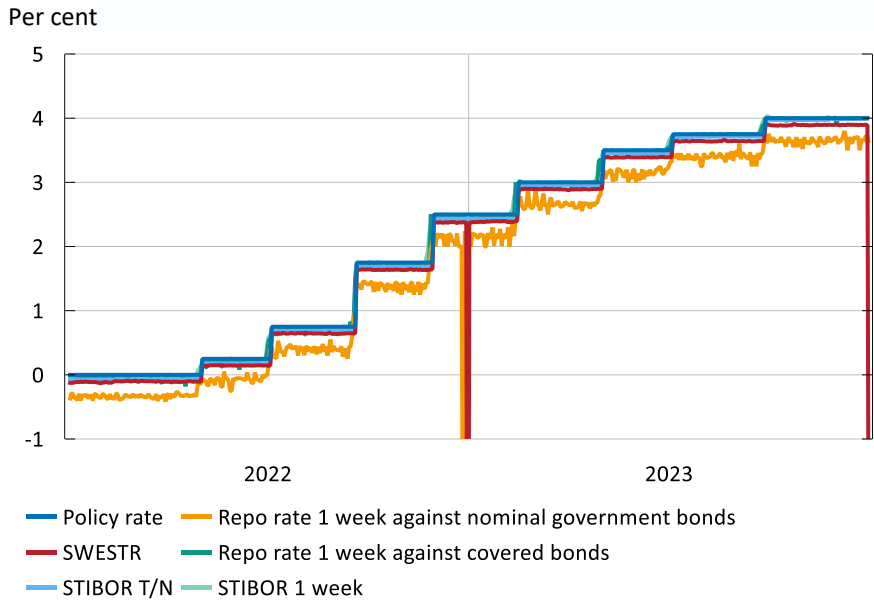
Source: The Riksbank.

As can be seen in Figure 12 and Figure 13, the policy rate hikes affected the shortest money market rates as expected, that is they changed by about the same as the policy rate. It is also clear that the rates are relatively close to the level of the policy rate. However, repo rates against government bonds are stable somewhat below the policy rate.²⁴ The figures also show that there has been limited volatility in these very short rates in 2022–2023, with the exception of the well-documented year-end effect. The conclusion can therefore be drawn that the transmission of the policy rate level to short money market rates have been favourable.

²³ It is not possible to see any tangible effect on SWESTR since February 2023. STIBOR T/N, on the other hand, has tended to be marginally higher than the policy rate since then.

²⁴ The Swedish National Debt Office offers market-supporting repo facilities in which primary dealers can borrow government bonds. Pricing of these provides a *de facto* floor for pricing of repos against government bonds in the private repo market. A perceived shortage of government bonds has pushed down the prices of repos towards this floor. For more information on the repo facilities, see M. Blix Grimaldi and J. Hirvonen (2023), "Två årtionden med Riksgäldens repofacilitet" [Two decades of the National Debt Office's repo facility], *Debt Office Commentary* No. 1, Swedish National Debt Office. In Swedish only.

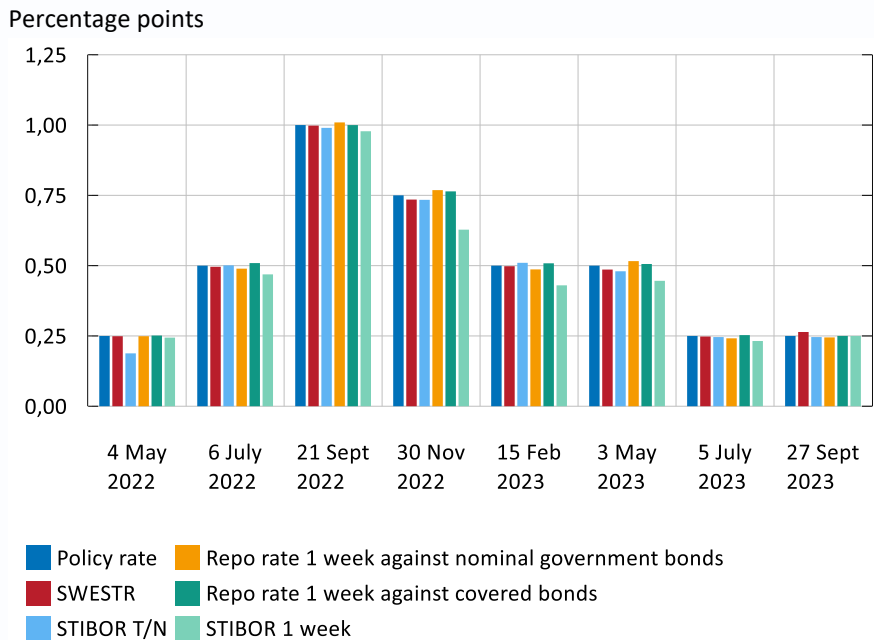
Figure 12. The policy rate and money market rates 2022–2023



Note. The repo rates are volume-weighted and have been calculated based on the transaction data collected from the monetary policy counterparties. Transactions with the National Debt Office have been excluded. Individual deviating observations have been excluded.

Sources: SFBF and the Riksbank.

Figure 13. Pass-through from changes in the policy rate 2022–2023



Note. The repo rates are volume-weighted and have been calculated based on the transaction data collected from the monetary policy counterparties. Transactions with the National Debt Office have been excluded. The policy rate, SWESTR and STIBOR T/N show change compared with the day before the policy rate hike. Repo rates and STIBOR 1 week show how much the rates were changed in comparison with the week before. Effective dates are given for the rate hikes.

Sources: SFBF and the Riksbank.

The money market in the coming years

During the second half of this year, the Riksbank intends to clarify its view of future securities holdings in Swedish kronor and how this affects the implementation of monetary policy. Although the final point for the holdings remains to be established, the starting point is that the Riksbank will continue to normalise its balance sheet over the coming years. Holdings of securities in Swedish kronor will be reduced partly through bonds maturing and partly by the Riksbank actively selling government bonds.²⁵ This means that the amount of collateral available in the repo market can be expected to increase further, something that is reinforced by the fact that net issues of both government bonds and covered bonds are expected to increase.²⁶ The increased supply of collateral can in turn mean that repo rates increase somewhat in relation to the policy rate.

The winding-down of the Riksbank's asset holdings is also the factor that will affect the size of the banking system's liquidity surplus towards the Riksbank the most in the coming years. The capital contribution of SEK 25 billion that the Riksbank expects to receive will also cause it to decrease. If the Riksbank's securities holdings are wound down in line with the current technical projection (see Figure 31), the banking system's structural liquidity surplus is expected to be around SEK 375 billion at the end of 2026.²⁷ Although a liquidity surplus of SEK 375 billion is a large decline from the current levels, it is at the same time substantially more than the approximately SEK 150 billion that the monetary policy counterparties on average save after the certificate issues. This level can be regarded as the banks' assessment of the necessary amount of central bank reserves overnight. The Riksbank therefore assesses that interest rate formation in the market for liquidity balancing will continue to be characterised by relatively good availability of liquidity in the future.

However, the fact that the banking system as a whole has a significant liquidity surplus does not necessarily mean that the liquidity is well distributed among banks based on what they need.²⁸ On the contrary, it can be expected that the monetary policy counterparties, going forward, will need to balance liquidity among themselves to a greater extent. This means that activity in the money market can be expected to increase in the coming years. It is reasonable to expect that this will also lead to money market rates in general increasing somewhat in relation to the policy rate, and to a somewhat higher volatility in interest rate setting. At the same time, it is likely that these effects on money market rates will nevertheless be of a marginal nature as

²⁵ A technical projection of the Riksbank's securities holdings is shown in Figure 31.

²⁶ See *Central Government Borrowing: Forecast and Analysis 2024:2*, May 2024, Swedish National Debt Office and "How does quantitative tightening affect banks?" in *Financial Stability Report*, May 2024, Sveriges Riksbank.

²⁷ This is a simplified projection of the banking system's liquidity position towards the Riksbank, which is based on a number of assumptions. The securities holding are assumed to develop in line with the projection shown in Figure 31. The volume of outstanding banknotes and coins is assumed to remain unchanged. The projection also disregards the interest payments the Riksbank makes and the coupon payments the Riksbank receives. The proceeds of the sale of the bonds is approximated to their nominal values.

²⁸ From a financial stability perspective, it is important for banks to have both the knowledge and the tools, and also that they have the internal credit limits needed to balance liquidity among themselves to a significantly greater extent than in recent years. See "How does quantitative tightening affect banks?" in *Financial Stability Report*, May 2024, Sveriges Riksbank.

the volume of available central bank reserves is expected to continue to exceed demand.

The Riksbank's current assessment is that money market rates will remain stable and stay close to the policy rate in the coming years. The Riksbank will closely monitor developments on the money market, and be vigilant of how it develops as the normalisation of the Riksbank's balance sheet continues.