

Box 1.1

Evaluation of Quantitative Tightening Steps

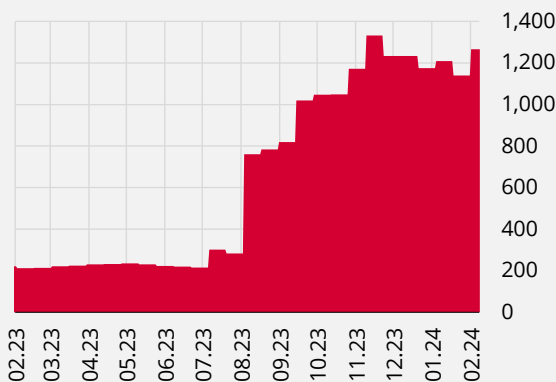
The CBRT started the monetary tightening process in the second half of 2023 to establish disinflation as soon as possible, to anchor inflation expectations and to control the deterioration in pricing behavior. Turkish lira liquidity developments are closely monitored to ensure the level of monetary tightness required for the permanent establishment of price stability, and monetary transmission is strengthened through quantitative tightening decisions.

Short-term market interest rates play an important role in the first stage of the monetary transmission mechanism. In the traditional inflation targeting regime, it is desirable for overnight market rates to be close to the policy rate to control long-term interest rates. For this purpose, central banks implement active liquidity management and take quantitative tightening steps when necessary. Central banks can ensure that market interest rates are in line with monetary policy through the decisions they make regarding the level of liquidity in the banking system (Ganley, 2002; Von Heideken and Sellin; 2014). In this context, the recent liquidity steps taken by the CBRT aim to increase the effectiveness of the monetary transmission mechanism.

As of the second half of 2023, due to exchange rate difference payments stemming from FX-protected accounts and FX transactions against Turkish lira, there has occasionally been an excess Turkish lira liquidity in the system, and the CBRT has become a net borrower in OMO. The CBRT has many policy tools to sterilize the excess liquidity that may occur in the market (Table 1). As a matter of fact, the excess liquidity has been sterilized by various tools to increase the effectiveness of the monetary transmission mechanism. In this context, a total of TRY 1 trillion was sterilized from the system with the increases in required reserve ratio made within the scope of quantitative tightening in July, September and November 2023 (Chart 1). The funding need of the system, which was TRY 926 billion in mid-July 2023 before the increase in required reserve ratio, reached TRY 1,269 trillion as of December 21, 2023 (Chart 2). Following the quantitative tightening steps taken regarding reserve requirements, the CBRT started to organize Turkish lira deposit buying auctions by increasing the variety of sterilization tools used to strengthen the monetary transmission mechanism, following the announcement made on 21 December 2023.

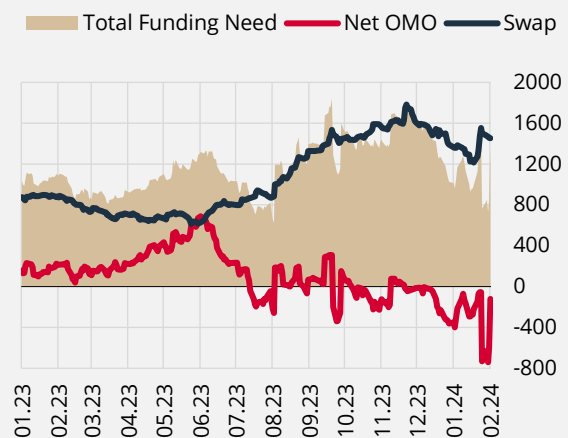
The CBRT continued the quantitative tightening process through the regulation made regarding the reserve requirements within the scope of its announcement dated 30 January 2024. While the required reserve ratios for FX-protected accounts were reduced, the additional reserve requirement ratio established in Turkish lira for FX accounts was increased. The net effect of the regulation was a tightening of TRY 125.8 billion.

Chart 1: Turkish Lira Required Reserve Level (TRY Billion)



Source: CBRT.

Chart 2: Funding Need of the System and CBRT's Funding (TRY Billion)



Source: CBRT.

Table 1: Sterilization Tools of the CBRT

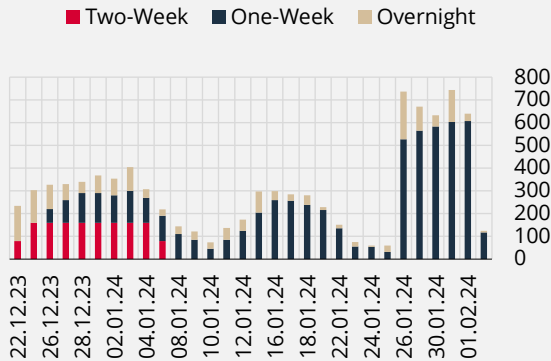
	Policy Tool	Maturity	Effect	Frequency
Required Reserve Regulations	TL Denominated Required Reserve Facility for TL Denominated Liabilities	14 Days	Permanent	Two-Week Average
	TL Denominated Required Reserve Facility for Foreign Currency Denominated Deposits/Participation Funds	14 Days	Permanent	Two-Week Blocked
Market Operations	TL Deposit Buying Transactions in the CBRT Interbank Money Market	Overnight	Temporary	Daily
	Repo/Reverse Quotation Transactions against Lease Certificates	Overnight	Temporary	Daily
	Repo/Reverse Repo Transactions in BIST Repo Market	Overnight	Temporary	Daily
	TL Deposit Buying Auctions	Up to 91 days	Temporary	When necessary
	Reverse Repo Auctions	Up to 91 days	Temporary	When necessary
	Issuance of Liquidity Bills	Up to 91 days	Temporary	When necessary
	Outright Sales Transactions	-	Permanent	When necessary

Evaluation of Turkish Lira Deposit Buying Auctions

Since 22 December 2023, the CBRT has been sterilizing the excess liquidity in the system by conducting one and two-week Turkish lira deposit buying auctions in addition to its overnight sterilization. As temporary excess liquidity in the system has declined since this date, the amount of funds withdrawn through deposit buying auctions has also decreased and reached TRY 32 billion as of 25 January 2024. As a result of the calculation of required reserves maintained for Turkish lira liabilities on a two-week average basis, a significant increase in the excess liquidity level was observed on 26 January 2024 due to the change in the required reserve balances during this period, and while TRY 527 billion was sterilized through the deposit buying auctions on the said day, TRY 210 billion liquidity was withdrawn over the overnight maturity. As of 2 February, the level of excess liquidity decreased as the reserve requirement maintenance period started and the increase in required reserve ratio went into effect, and TRY 118.1 billion was withdrawn through deposit buying auctions, while TRY 6.5 billion was sterilized through the overnight term. Withdrawal of excess liquidity through TL deposit buying auctions with a term longer than overnight maturity has enabled the overnight sterilization amount to gradually decline, despite the increasing Turkish lira liquidity surplus in the system since mid-December (Chart 3). With the CBRT's overnight sterilization amount falling to reasonable levels, the overnight transaction volume at the BIST Repo-Reverse Repo Market, where the benchmark overnight repo rates are established, remained at plausible levels, thereby supporting the effective functioning of the money market.¹ In September, when the total OMO sterilization amount exceeded TRY 300 billion, BIST Repo-Reverse Repo Market overnight transaction volume declined gradually and reached TRY 28 billion on 28 September 2023. On the other hand, the average total OMO sterilization amount exceeded TRY 300 billion during the deposit buying auctions period, while BIST Repo-Reverse Repo Market overnight transaction volume was TRY 120 billion on average (Chart 4).

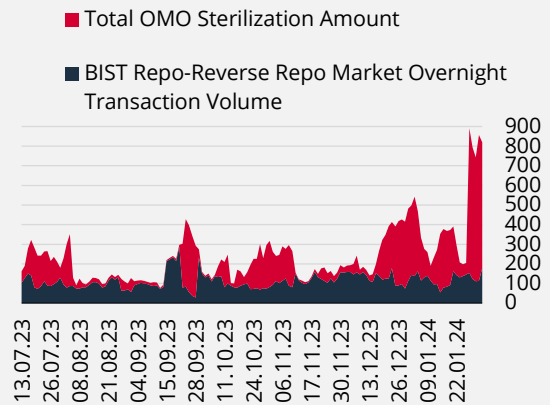
¹ Von Heideken and Sellin (2014) report that excess liquidity in the system causes banks to reduce their transactions in the overnight market and may negatively affect the functioning of money markets by reducing their incentives for effective liquidity management.

Chart 3: Total OMO Sterilization Amount (TRY Billion)



Source: CBRT.

Chart 4: Total OMO Sterilization and BIST Repo-Reverse Repo Market Overnight Transaction Volume (TRY Billion)

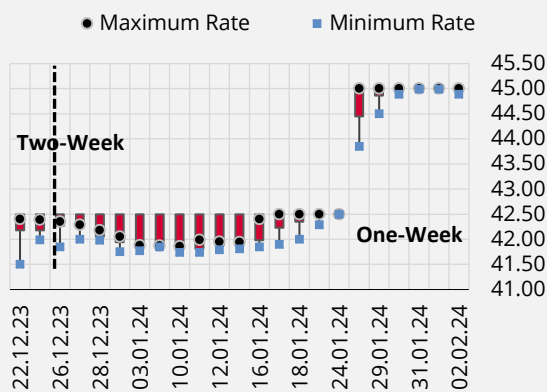


Source: BIST, CBRT.

The detailed analysis of the auctions shows that the auction bids are spread far apart in the first days of the one- and two-week auctions, whereas the bids converge to each other later on. The weighted average interest rates in deposit buying auctions were realized at levels close to the CBRT’s policy rate (Chart 5).

Reducing the CBRT’s overnight sterilization amount through OMO to reasonable levels had positive effects on BIST Repo-Reverse Repo Market transaction volumes and also improved the transmission of the CBRT’s monetary policy stance to overnight interest rates. As a result of the withdrawal of excess liquidity through deposit buying auctions with a term longer than overnight maturity, BIST Repo-Reverse Repo Market overnight repo interest rates remained close to the CBRT’s policy rate. Analyzing the days when net sterilization exceeded TRY 50 billion, it can be seen that deposit buying auctions significantly closed the gap between BIST overnight interest and the CBRT’s policy rate (Chart 6).

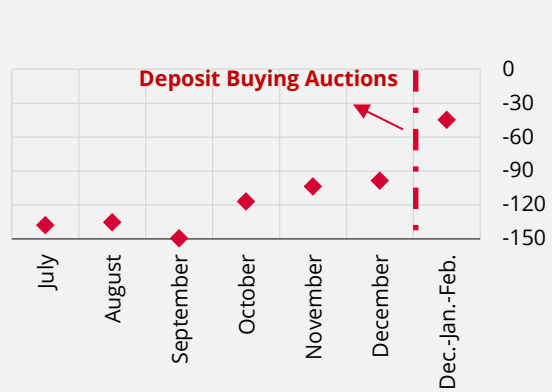
Chart 5: Bids Received for TL Deposit Buying Auctions* (%)



Source: CBRT.

* The end of the bars in the chart shows the CBRT policy rate, and the other end shows the average interest rate in the auction.

Chart 6: BIST Overnight Repo Rate and CBRT Policy Rate Difference* (% Points)



Source: BIST, CBRT.

* Days when the excess liquidity sterilized by OMO is over TRY 50 billion.

References

Ganley, J. (2002). Surplus Liquidity: Implications for Central Banks. Lectures, Centre for Central Banking Studies, Bank of England, number 3, April.

Von Heideken, Q., & Sellin, P. (2014). The Banking System’s Liquidity Surplus and Interest Rate Formation. Sveriges Riksbank Economic Review, 3, 59-75.