Monetary Policy Instruments

Monetary Operations Strategy Team

Financial Markets Operations Group

February 2015

Under the inflation targeting framework, the Bank of Thailand (BOT) uses the 1-day bilateral repurchase rate as the key policy rate. The Monetary Policy Committee (MPC) signals shifts in monetary policy stance through announced changes in the policy rate. The BOT uses a variety of monetary policy instruments to implement MPC's interest rate decisions.

Monetary Policy Instruments

The BOT's operational framework consists of a set of instruments which can be classified into three categories:

1. Reserve Requirements
2. Open Market Operations (OMOs)
3. Standing Facilities

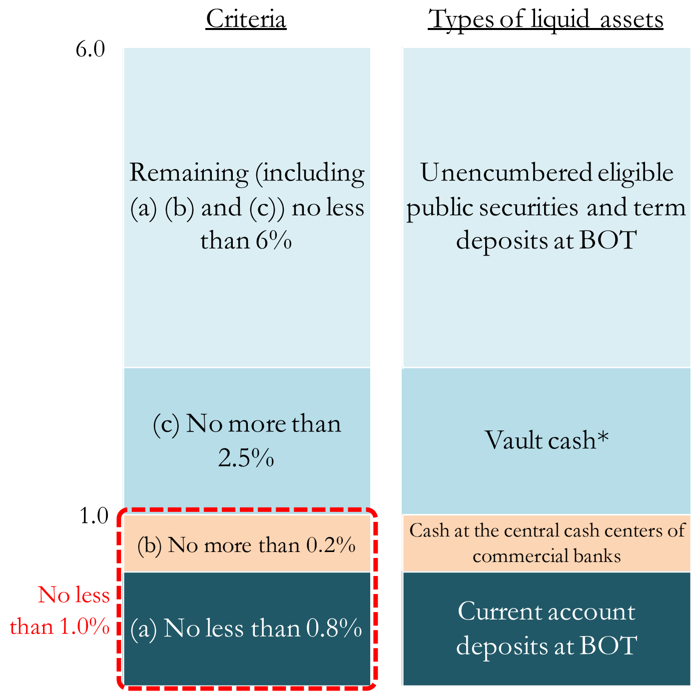
1. Reserve Requirements

Commercial banks are required to maintain a minimum reserves on average over a fortnightly period (starting on a Wednesday and ending on a second Tuesday thereafter), with carry-over provisions, equaled to a specified percentage of the previous period's average level of commercial banks' deposits/liabilities base.

The reserve base comprises deposits, borrowings through issuance of bills of exchange or promissory notes, short-term foreign borrowings maturing within one year and other borrowings with index-linked returns or embedded financial derivatives. Currently, the reserve requirements ratio is 6%, and reserves consist of the following assets:

1) A minimum 1% in non-remunerated current account deposits at the BOT, (of which no more than 0.2% in cash at the central cash centers of commercial banks can be counted towards this component)
2) A maximum 2.5% in Vault cash. The cash at the central cash centers of commercial banks that is in excess of 0.2% can be counted as vault cash
3) The rest in unencumbered eligible public securities and term deposits at the BOT

Figure 1: Compositions of reserve requirements



* Cash in excess of 0.2% at the central cash centers of commercial banks can be counted towards vault cash.

Compliance with reserve requirements is determined on the basis of the average of the end-of-day balances of the banks' reserves assets over a maintenance period. Such averaging arrangement helps to facilitate banks' own liquidity management as well as to reduce daily volatility in short-term interest rates. For example, a bank may maintain reserves below the amount required on a particular day, and choose to increase its reserves holding on other days within the same maintenance period, without necessarily borrowing from the interbank market on that day which could put upward pressure on the interbank rates.

The carry-over provision provides commercial banks greater flexibility in liquidity management by allowing banks to transfer up to 5% of reserves between consecutive maintenance periods. This carry-over provision applies to the current account deposits component only and it works both ways. That is, banks can count part of this period's excess reserves towards next period's requirements by up to 5% of the requirements, and banks can make up 5% shortfalls of current-period required reserve in the next period. The carry-over provision helps reduce interest rate volatility on the last day of the maintenance period.

2. Open Market Operations (OMOs)

In conducting open market operations, the BOT undertakes transactions in financial markets in order to affect the aggregate level of reserves balances (financial institutions' deposits at the BOT) available in the banking system, and therefore affects the short-term market interest rates.

OMOs are the primary instrument used to maintain the policy rate, while at the same time ensuring that there is sufficient liquidity in the banking system to satisfy banks' demand for required reserves and settlement balances. The BOT employs four main types of open market operations:

1) Bilateral repurchase operations (BRP)
2) Issuance of Bank of Thailand Bills/Bonds
3) Foreign Exchange Swap
4) Outright Purchase/Sale of Debt Securities

Bilateral repurchase operations (BRP)

The BOT uses bilateral repurchase and reverse repurchase transactions to temporarily add or drain reserves available to the banking system. The transaction involves a purchase or sale of securities with a simultaneous agreement to reverse the transaction at an agreed date and price in the future. This effectively is cash lending (injecting liquidity) or cash borrowing (absorbing liquidity) with debt securities as collateral. The repurchase/reverse repurchase prices would equal to the loan amount plus interest.

The bilateral repurchase operation is conducted through Primary Dealers (PDs) appointed for BRP transactions. Normally, the BOT conducts BRP operations in the morning (between 9.30 – 9.45 am). However, on the MPC's meeting days, the bilateral repurchase operation is conducted at 2.30 pm after an announcement of the MPC's interest rate decision to allow the change in the policy rate (if any) to take effect on the same day.

Before 9.30 am, the BOT notifies the PDs of the BRP operation that the BOT plans to conduct on that day (injection or absorption at specific maturities). The PDs have 15 minutes to respond with their tenders, and by 10.00 am the BOT informs each PD the results of their biddings. The settlement has to be completed by 2.00 pm on the same day. In addition, the BOT may consider conducting a special round of bilateral RP operation, if necessary, at 4.00 pm to fine-tune liquidity in the system. Since June 2006, the BOT has conducted the operation on a daily basis.

The BOT may conduct either a fixed-rate tender or a variable-rate tender. A fixed-rate tender is used for the 1-day transaction in order to enhance the signaling effect of the policy rate, while a variable-rate tender applies for all other longer-maturity transactions. In other words, when the BOT wishes to conduct the 1-day bilateral repurchase transaction, it will do so at the policy rate. Thus, PDs only indicate the amount of money they wish to transact with the BOT. In a variable-rate tender, which applies to the term BRP transactions (namely the 7-day, 14-day and 1-month tenors), PDs have to indicate both the amount and the interest rates.

Since 21 June 2013, the BOT has implemented the so-called "indexed BRP" approach in a conduct of the term operations. Under this approach, PDs submit their bids for the 7-day, 14-day and 1-month transactions in the form of spreads over (or under) the policy rate. A rate of return on a given term BRP contract is thus indexed to the policy rate, which will change if, and when, the MPC adjust the policy rate.

The bilateral repurchase operation has been designed such that it conforms to international market practices. For example, initial haircuts, margin calls and marking to market of collateral are applied. The bilateral repurchase operation has fostered the development of Thai money market and private repurchase market.

Issuance of Bank of Thailand Bills/Bonds

The BOT started reissuing Bank of Thailand Bills/Bonds in early 2003, with an aim to expand the range of instruments used in the implementation of monetary policy. This enhances the flexibility and efficiency in managing money market liquidity and in conducting monetary operations. The BOT determines the total issue size and maturity distribution in accordance with the prevailing money market conditions, taking into account the issuance schedule of public sector debts. The monthly auction calendar is announced in advance on the Bank of Thailand website.

Bills/Bonds are issued through competitive multiple-price auctions (Competitive Bidding: CB) and Non-Competitive Bidding (NCB). The frequency of issuance varies according to the type and the maturity of the papers as summarized in the table below:

Type	Maturity	Auction Date	Auction Frequency
Discount bills	Less than 15 days	Friday	Occasionally*
	3 month	Tuesday	Every week
	6 month	Tuesday	Every week
	1 year	Tuesday	Every month
Fixed-coupon bonds	2 year	Thursday	Every even month
	3 year	Thursday	Every odd month
Floating-rate bond	3 year	Friday	Every even month

* Should the BOT consider it appropriate to issue CMB, we will announce an auction schedule within the same week.

Eligible bidders comprise the same institutions as those eligible for the bidding of Treasury bills and Government bonds[1] which are commercial banks, specialized financial institutions, finance companies, securities companies, Government Pension fund, Provident funds, Mutual funds, Social Security Office, Life and Non-life insurance companies, and

[1] The Ministry of Finance limits a list of eligible bidders for certain benchmark government bonds to MOF Outright PDs.

other institutions holding their current accounts at the Bank of Thailand. Eligible non-competitive bidders include foundations, cooperatives and non-profit organizations, who can place non-competitive bids through primary dealers appointed by the Ministry of Finance (MOF Outright PDs).

Foreign Exchange Swap

The foreign exchange swap (FX swap) is another instrument the BOT uses to influence liquidity conditions in the money market. It greatly enhances the BOT's liquidity management especially when collateral for BRP operation is limited. The FX swap is similar to a repurchase agreement in domestic debt securities. The difference being that the Thai baht is exchanged for foreign currency, namely the US dollar, rather than domestic debt securities.

The BOT conducts liquidity withdrawal operations via sell-buy FX swap transactions with both onshore and offshore commercial banks. The sell-buy FX swap operation is generally conducted to lessen the amount of liquidity needed to be withdrawn through BRP operations. The BOT will either call banks directly asking for quotes or access the market via brokers. The transactions are undertaken throughout the day. Moreover, banks in need of baht liquidity could submit their bids for buy-sell FX swap through e-swap window between 11.30 am – 1.30 pm, indicating swap points, amount and maturity. The BOT, after taking into account the overall money market condition, will notify counterparties their results by 2.30 pm. Settlement usually takes place one or two days afterwards. The BOT will occasionally allow same-day settlement in exceptional circumstances. Standard tenors are overnight up to one year.

Outright Purchase/Sale of Debt Securities

To permanently add or drain liquidity available to the banking system, the BOT buys or sells debt securities outright with appointed e-outright counterparties. The BOT typically adds rather than drains reserves through this channel to accommodate the permanent increase in demand of currency in circulation as the economy grows.

The procedure for outright operation involves the BOT notifying the e-outright counterparties before 10.00 am the specific securities that the BOT would like to buy or sell. The counterparties have an hour to respond with their bids/offers including yields and amounts. The multiple-price auction procedure is employed, and the BOT will inform each PD before noon of the auction result. Settlement takes place two days afterwards.

Although eligible securities include all types of secured public debt securities, the BOT has primarily conducted outright operations on government and BOT bonds as these papers are highly liquid in the secondary market.

3. Standing Facilities

The BOT provides standing facilities, through which financial institutions can borrow from or deposit funds at the BOT on an overnight basis to help adjust their liquidity position at the end of the day. Financial institutions with insufficient liquidity could borrow funds by pledging eligible securities as collateral, while institutions with excess liquidity could deposit funds at the BOT.

Interest rates on standing facilities are equal to the policy rate plus or minus a margin, depending on whether financial institutions borrow from or depositing funds at the BOT. Currently, the margin is set at +/- 0.5 percent per annum. The rates charged on the Standing Facilities are designed to ensure that the interest rate corridor is sufficiently wide to encourage market players to adjust liquidity amongst themselves while at the same time narrow enough to ensure that market interest rates will fluctuate within an acceptable range.

On the Lending Facility, even though there is no explicit limit on the amount each financial institution could borrow, availability of collateral will effectively act as a cap. Such overnight lending facility is also provided as part of the BAHTNET RTGS (Real Time Gross Settlement) payment system to accommodate the "spill-over" into overnight liquidity of the free-of-charge intra-day liquidity. In the event that the intra-day liquidity is not repaid by the end of the day, banks will be charged the same interest rate as that of the End-of-Day Lending Facility, thereby effectively using the standing overnight credit facility.

The debt securities that financial institutions can use as collateral are the same set as those that can be pledged in BRP operation. In addition, since 2011, the BOT expanded a range of eligible collateral accepted for the Lending Facility to include foreign government bonds. Currently, financial institutions borrowing via Lending Facility window could pledge Japanese government bonds as collateral.

All transactions through the Standing Facilities are overnight and are settled on the same-day. The facilities are available to all financial institutions with deposits at the Bank of Thailand, including commercial banks, finance companies, credit foncier companies, and specialized financial institutions and other juristic persons specified by the BOT. Standing Facilities are available every working day at 4.30-5.00 pm and 5.00-5.30 pm for Deposit Facility and Lending facility respectively. The facilities' hours may be extended in case of some technical problems related to the settlement system.

Despite relatively limited amount of actual transactions through these standing facilities, the facilities are an important mechanism to safeguard money market stability. They act as a "safety valve" for the system, while setting a cap and a floor on overnight market interest rates, essentially forming an interest rate corridor.

Figure 2: Interest rate corridor