**ECONOMICS**

**MONEY MOVEMENT LIQUIDITY**

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**INTRODUCTION**

The term liquidity is used in a variety of ways. In this paper, however, ‘liquidity’ has beenpredominantly used in terms of the amount of money that the central bank makes available to banks on a daily basis (Borio, 1997 and Longworth, 2007). The central bank is a monopoly supplier of such liquidity, also called reserves. Reserves are bank deposits with the central bank. Banks need to maintain deposits with the central bank to meet the central bank prescribed reserve requirements or cash reserve ratio (CRR) as also to meet settlement obligations. The central bank bridges the gap between the demand and supply of reserves by way of various instruments, such as open market operations (OMOs) (including repos), provision of standing facilities and modulation of CRR. While instruments such as CRR and OMO are more suited to address durable or structural liquidity mismatches, overnight repo operations are designed to address frictional liquidity mismatches. On a day-to-day basis, the amount of surplus/deficit at the overnight repo window is another – narrower – measure of liquidity position. In India, this narrower version of liquidity is measured in terms of the net position of commercial banks in the Reserve Bank’s liquidity adjustment facility (LAF).[1](http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14331#f1) This concept of liquidity appears to have been expounded in the following stance of monetary policy viz., “Manage liquidity to ensure that it remains broadly in balance, with neither a large surplus diluting monetary transmission nor a large deficit choking off fund flows” (RBI, 2011a). It is by injection/absorption of liquidity ‘at the margin’ through the LAF that the Reserve Bank bridges the gap between the demand and supply of liquidity on a day-to-day basis.

**Concepts of Liquidity**

**Macroeconomic liquidity**

Macroeconomic liquidity relates to monetary conditions. The key indicators of macroeconomic liquidity in terms of price are the policy interest rates and the term structure of interest rates

**Market liquidity**

Market liquidity refers to how readily one can buy or sell a financial asset at short notice,

**Balance sheet liquidity**

Balance sheet liquidity refers broadly to the cash-like assets on the balance sheet of a firm or a household.

**Funding liquidity**

Funding liquidity may be defined as the ability of banks to settle obligations with immediacy (Drehmann and Nikolaou, 2009).

**Interaction between the Drivers of Liquidity and Money Supply**

In the previous Section, we have discussed the various autonomous drivers of liquidity (*viz.*, currency with the public, government cash balance and foreign exchange operations) and the instruments with which the Reserve Bank, at its discretion, offsets/complements the autonomous drivers of liquidity. The impact of the changes in the autonomous and discretionary factors of liquidity on the Reserve Bank’s balance sheet and money supply are summarised in [Annex](http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14331#AN).

The relationship between the drivers of liquidity and the excess reserves position of banks is straight forward as seen from columns 1-4 of Annex. Column 5, however, shows that the relationship between reserves and money supply may not always be straight forward. Indeed, the nature of causality between liquidity (in the sense of reserves) and money supply is subject to a wide ranging debate among the economic theorists as also the central bankers. If the relationship holds true, central banks can opt for reserves based monetary targeting where reserves are the operational target. We shall see later that, as in the case of other countries, India’s experience with reserves based monetary targeting too did not often yield the desired results.

We shall begin our analysis with an extremely stylised balance sheet of a central bank to study the implications of the autonomous factors of reserve money based on recent experiences. We shall examine as to how the Reserve Bank has deployed the policy instruments to offset the effects of these shocks.

***Baseline scenario***

A simplified balance sheet of a central bank is presented in Table

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 2: A stylised central bank balance sheet** | | | |
| (` billion) | | | |
| **Liabilities** | | **Assets** | |
| Currency | 400 | Government Securities | 200 |
| Reserves = (Required Reserves) | 100 | Forex | 300 |
| Total | 500 | Total | 500 |

In this baseline scenario, banks do not hold excess reserves with the central bank and the amount of LAF outstanding is nil. The central bank’s balance sheet size is `500 billion. Liabilities other than reserve money comprise non-monetary liabilities.[10](http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14331#F10) In the baseline scenario, we ignore the presence of non-monetary liabilities[11](http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14331#F11) in the balance sheet. Government’s cash position is assumed to be in balance. On the assets side, the lending to banks through refinancing facilities (*e.g.*, export credit refinance) is assumed to be nil as it is a not a significant component of the balance sheet.[12](http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14331#F12) Non-monetary assets, mainly, fixed assets, amounts spent on projects pending completion and staff advances, *etc.*, are also assumed to be nil.

Starting from the baseline scenario of a simplified central bank balance sheet, we shall see in this Section as to how the changes in the various autonomous drivers of liquidity – government cash balance, capital flows and currency demand by the public – impact on the central bank balance sheet. Second, we shall also observe the implications of liquidity management by the central bank on its balance sheet in response to the sharp movements in the autonomous drivers of liquidity. Third, we shall see how changes in liquidity impacts on money supply and the roles played by the money multiplier and the velocity of circulation of money. Fourth, we shall explore the credit creation process and the money multiplier process in the absence of excess reserves with commercial banks. Finally, we shall see whether CRR and OMO are substitute or complementary instruments of liquidity management.