



## A Guide to RBI's Weekly Statistical Supplement

RBI releases a weekly statistical release called Weekly Statistical Supplement (WSS). WSS comprises of 22 tables each detailing rich data on RBI's monetary operations and emerging trends in banking and financial markets. Where Federal Reserve has made it mandatory to release its balance sheet details every week only post the 2007 crisis, RBI has been releasing its balance sheet and other important monetary data on a weekly basis via this WSS release.

What is interesting to note is many tables in WSS are inter-linked picking data from other tables but labeled differently. Reading and analyzing WSS hence becomes a difficult and complex task. As WSS points to some important developments in the economy particularly monetary trends, understanding the flow of money is important.

This report is an attempt to simplify WSS. In this report, we look only at tables related to RBI and its monetary operations. We will release a report on the other tables related to banks and financial intermediaries in future.

### I. Understanding WSS - Methodology

WSS has two main sets of data released at different dates:

- RBI's monetary operations data: This includes RBI's balance sheet, forex reserves and reserve money. This is released with a weekly lag. Thus WSS of 30-Dec-11 will show figures of 23-Dec-11.
- Banking and Financial Market data: This includes data on commercial bank deposits and credit, money supply etc. This is released with a fortnightly lag e.g. WSS of 30-Dec-11 will show figures of 16-Dec-11.

There is other kind of data as well which is just for reporting purposes. It includes financial market data like BSE/NSE closing, Certificates of Deposit, Commercial Paper etc. which are reported as per data availability. Like CD data is released with a lag of almost 2 months, CP data with one month etc. The other financial market data related to secondary markets like BSE/Nse closing, G-Sec turnover etc are reported with a week lag.

The challenge with WSS is to understand the meaning of the various items in RBI's monetary operations data and Banking data. RBI releases its Annual Balance Sheet every year for the year ending on 30 June. The Annual Balance sheet explains the terms of RBI's balance sheet with more clarity and details. Hence, we chose a date which matches data presented in WSS and RBI's balance sheet.

For RBI's monetary operations we chose WSS for July 8, 2011 and for banking operations we chose July 15, 2011. Both these show corresponding data for July 1, 2011. As on July 1 markets are closed on account of RBI account closing, we get to compare WSS with RBI's balance sheet. Once we have a common date, it helps us understand the items in WSS from RBI's annual balance sheet. We use the balance sheet details to understand the various items mentioned in WSS. Hence, this report should be read with WSS released on 8-Jul-11 (which has data for 1-Jul-11) and RBI's Annual report 2011-12.



In this report, we analyse RBI's monetary operations detailed in WSS. There are three main tables on RBI's monetary operations in WSS:

- Table 1 : Reserve Bank of India - Liabilities and Assets
- Table 2: Foreign Exchange Reserves
- Table 8: Reserve Money: Components and Sources (this is another way of classifying RBI's balance sheet as explained below).

Apart from these, data pertaining to RBI is used in Table 3 and Table 7 which pertain to the banking system. Hence, if we understand the tables pertaining exclusively to RBI, we can understand the other tables related to banking as well. Let us look at each of these three tables:

## II. Reserve Bank of India: Liabilities and Assets (Table 1 of WSS)

This is the most important table in WSS as it helps understand RBI's interactions with the economic system on a weekly basis.

RBI's balance sheet is a sum of two RBI departments.

- Issue department: looks at issuing and management of currency in the system. This is done to maintain the sanctity of the currency issue function in line with practices followed by Bank of England.
- Banking department: looks at all the other central banking operations like maintenance of CRR balances, loans to government etc.

Annual report mentions the balance sheet of two departments separately but WSS combines the two departments. By choosing a common date for WSS and Annual report closing, we can understand the items under two departments.

### Items under Liabilities:

- **Notes Issued:** This includes currency in circulation in Indian economy and some notes held in banking department. Both these items form liability of issue department. The notes held in banking department form assets of banking department and is included in other assets (explained below)
- **Deposits:** include all the balances with RBI of various entities. This includes cash balances of central and state government. Central government is required to mandatorily maintain Rs 100 Cr with RBI and State Governments are required to maintain minimum balance of Rs 45 lacs. Then there are CRR balances of Scheduled banks (commercial and cooperative) and current accounts balances with RBI of other entities like Non-Scheduled State cooperative banks. Others include deposits of other financial institutions (Primary Dealers, EXIM Bank, NABARD etc.), Rupee Deposits from Foreign Central Banks and Foreign Financial institutions, temporary accounts and accumulated retirement benefits of RBI staff.
- **Other liabilities:** This includes all the liabilities which do not create any money like capital, various RBI reserves etc. These are also called as non-monetary liabilities of RBI mentioned in WSS tables related to money supply and reserve money. The items which come under Other liabilities mentioned in Table 1 of the WSS are detailed in exhibit 1. The break-up of other liabilities are only available from the annual report.



| <b>Exhibit 1: Items under other Liabilities as on 1 July 2011<br/>(in Rs crore)</b> |  |                |
|---|--|----------------|
| 1   | Paid up Capital of RBI (fully by Government of India)  | 5              |
| 2   | Reserve Fund   | 6,500          |
| 3   | National Industrial Credit (Long Term Operations) Fund                                       | 20             |
| 4   | National Housing Credit (Long Term Operations) Fund  | 194            |
| 5   | Provisions of Reserve Bank   | 4,14,197       |
|   | Contingency Reserve  | 1,70,728       |
|   | Asset Development Reserve  | 15,866         |
|   | Currency and Gold Revaluation Account  | 1,82,286       |
|   | Investment Revaluation Account   | 4,269          |
|   | Exchange Equalisation Account  | 1.12           |
|   | Settlement Liabilities   | 16,689         |
|   | Provision for Outstanding Expenses   | 1,518          |
|   | Profits Transferred to GoI   | 15,009         |
| 6   | Miscellaneous  | 7,832          |
|   | Others   |                |
|   | Bills Payable include Outstanding Drafts / Telegraphic Transfers/Payment Orders drawn by RBI | 833            |
|   | Special Deposits like Resurgent India Bonds, India Millennium Deposits etc                   | --             |
|   | Other Liabilities ( 1 to 6)  | <b>421,749</b> |

In these other liabilities, Currency and Gold Revaluation Account in particular is important. The Gains/losses on valuation of currency and gold is booked under this account. Most of the other accounts/items in 'Other liabilities' do not change much but this account changes considerably given rapid change in gold and currency prices. However, we only get to know the changes in this account when annual report is released. In WSS, we do not get this account separately but if we notice some large changes during a week/month, it should be mostly because of changes in this account.

### Items under Assets

Unlike Liabilities where we have a clear demarcation between Issue and Banking Department, in case of assets the accounts are combined under various heads.

- Foreign Currency Assets:** Foreign currency assets include investments in US Treasury bonds, Bonds/Treasury Bills of other selected governments, deposits with foreign central banks, foreign commercial banks etc. These are mainly invested in least risky foreign assets. WSS sums the foreign currency assets of both issue and banking departments. In issue department, these foreign assets back the issuance of notes along with rupee securities and gold. In banking department, it includes both foreign currency assets and balances with foreign entities like BIS, foreign commercial banks etc. This head forms part of Table 2 of WSS which accounts India's forex reserves. As per Exhibit 2, issue department holds around 72% of foreign currency assets and 28% is held by banking department.



| <b>Exhibit 2: Foreign Currency Assets as on 1-Jul-11<br/>(in Rs Cr)</b> |           |
|---|-----------|
| 1. Held in Issue Department   | 910,166   |
| 2. Held in Banking Department   | 358,578   |
| Foreign currency assets   | 55,047    |
| Balances held abroad  | 303,531   |
| 3. Foreign Currency Assets (1+2)  | 12,68,744 |

- Gold Coin and Bullion:** Again it is a summation of issue and banking department. On Jul 1, 2011 gold in issue department was Rs 57806 cr and in banking department was Rs 52,511 Cr making total gold holdings at 110317 Cr. Both the issue and banking departments hold around 50% of total gold holdings.
- Rupee Securities (including T-Bills):** This includes the government securities held by issue and banking department. In issue department rupee securities along with foreign currency assets serve as backing for currency issuance. The rupee securities held by issue department has been constant at Rs 1046.43 Cr since 2005-06. In other words, issuance of currency is mainly backed by foreign securities and gold. Exhibit 3 shows that 93% of currency is backed by foreign security, 4% by gold and remaining 1% by Government of India Rupee Securities and Rupee Coins.

| <b>Exhibit 3: Balance Sheet of Issue Department as on 1-Jul-11 (in Rs Cr)</b> |        |                                      |        |
|---|--------|--------------------------------------|--------|
| Liabilities   | Amount | Assets                               | Amount |
| Notes held in   |        | Gold                                 | 57806  |
| Issue Department  | 15     | Foreign Currency Assets              | 910165 |
| Banking Department  | 969261 | Rupee Coin                           | 257    |
|   |        | Government of India Rupee Securities | 1046   |
| Total   | 969276 | Total                                | 969276 |

Banking department includes government securities purchased under Open market operations and secondary market for monetary management purposes. The banking department is further divided into securities held by the banking department under trading account and net Repo volumes of that day.

Exhibit 4 explains how one can estimate the securities held in trading account of banking department. If we assume that issue department holdings remains constant at Rs 1046 Cr and calculate net repo transactions on that given day, we can get securities in trading account of banking department. Understanding the changes in this trading account is important as RBI buys and sells government securities and T-Bills in this account. RBI's OMO purchases and secondary market activity is reflected in this category.

| <b>Exhibit 4: Rupee Securities in WSS as on 1-Jul-11 (in Rs Cr)</b>                               |         |
|---|---------|
| Rupee Securities (including Treasury Bills) (1+2)   | 403,285 |
| 1. Issue Department   | 1,046   |
| 2. Banking Department (a+b)   | 398,173 |
| a. Securities Held in trading account (we can estimate this based on above explained calculation) | 296,083 |
| b. Net Repo ( c-d)  | 102,090 |
| c. Repo   | 104,690 |
| d. Reverse Repo   | 2,600   |



- **Loans and Advances:** This includes loans given to Centre and State Government and commercial banks. Loan to centre is also called as Ways and Means Advances a RBI facility started to help government in case of temporary mismatches. The WMA ceiling is reviewed from time to time depending on the economic situation.
- **Bills Purchased and Discounted:** This facility was used earlier by banks for refinancing the various bills held by banks from RBI. It is hardly used these days as money markets have developed greatly over the years which help banks manage their liquidity within markets.
- **Investments:** Apart from a central banker, RBI has also developed financial institutions by infusing equity into them. Over a period of time as markets developed, RBI has been divesting its stake in these entities. Recently it divested its stake in NABARD by 71.5% and sold it to Government of India.

| <b>Exhibit 5: Investments of RBI in Companies as on 1-Jul-11 (in Rs Cr)</b> |             |
|---|-------------|
|   | 2010-11     |
| DICGC   | 50          |
| NABARD  | 20          |
| NHB   | 450         |
| Bhartiya Reserve Bank Note Mudran   | 800         |
| <b>Total</b>  | <b>1320</b> |

- **Other Assets:** Includes RBI's fixed assets like various premises, income accrued but not received, Rupee Coins which are claims on the Issue Department, small coin which are claims on the Government etc.

These in nutshell are the various items mentioned in Table 1. Some items we can estimate on a weekly basis like Rupee Securities but for many others we can just take note of the weekly changes in the amount without really understanding what has driven the changes.

### III. Foreign Exchange Reserves (Table 2 of WSS)

There are three main purposes of Forex reserves: intervention in forex currency markets, provide foreign currency liquidity and for backing domestic currency (explained in exhibit 3). RBI publishes data on foreign exchange (forex) reserves to fulfil statutory obligations as a member of International Monetary Fund. The forex reserves include foreign currency assets and gold (held by both issue and banking departments), Special Drawing Right (SDR) and Reserve Position in the IMF. SDR is an international reserve created by IMF and allocated to its members in proportion of the members' quota at IMF. SDR was developed to provide another reserve currency to the world apart from US Dollar which could be used for international transactions. Reserve position in IMF as the name suggests is a reserve which members can draw upon to purchase other foreign currencies from the fund etc.

Both SDR and Reserve position in IMF are reflected in the books of Government of India but are available to RBI for use. Hence, both SDR and Reserve Position in IMF are not included in RBI's balance sheet above. But they are included in Table 2 of WSS to show total foreign currency reserves held by India (exhibit 6). In exhibit 6 we exclude Foreign currency denominated bonds issued by IIFC (UK) worth Rs 1148 Cr as these do not form part of forex reserves. The valuation of IIFC bonds has increased recently and on 13-Jan-2012 it stands at Rs 1950 Cr.



| <b>Exhibit 6: Break of Forex Reserves on 1-Jul-11 (in Rs Cr)</b> |                  |
|--|------------------|
| <b>Total Reserves (1+2+3+4)</b>                                  | <b>1,411,878</b> |
| 1. Foreign Currency Assets (i+ii-iii)                            | 1,267,626        |
| i) Issue Department  | 910166           |
| ii) Banking Department   | 358578           |
| iii) Foreign currency denominated bonds issued by IIFC (UK).     | 1148             |
| 2. Gold (iv+v)   | 110,317          |
| iv) Issue Department   | 57,806           |
| v) Banking Department  | 52,511           |
| 3. SDRs  | 20,632           |
| 4. Reserve Position in the IMF                                   | 13,303           |
| <i>Source: RBI</i>   |                  |

#### **IV. Reserve Money: Components and Sources (Table 8 of WSS)**

Reserve money or high powered money is something which is created by central banks which then forms the basis for money supply in an economy. The ability to create reserve money is what gives central banks so much power in an economy. A change in balance sheet minus the non-monetary liabilities is nothing but changes in reserve money. Reserve money is known by different names like high powered money, monetary base, base money, narrow money etc.

Table 8 explains how RBI creates reserve money. It is another way of showing Table 1 or RBI's balance sheet. Reserve Money is divided into two broad heads:

- **Components:** Shows the various types of reserve money. It is nothing but the liabilities of RBI. Items like currency in circulation or banks' deposits with RBI are types of reserve money.
- **Sources:** In order to generate reserve money RBI needs to engage in some operations. Hence, either RBI buys forex assets, gold or rupee securities. These are nothing but assets of RBI.

Net non-monetary liabilities of RBI are all those liabilities which do not create any monetary impact and is nothing but the other liabilities mentioned in Table 1. It includes RBI capital, various reserves, provisions etc minus the other assets of RBI. If we add net non-monetary liabilities to components of reserve money we have the balance sheet figure.

Reserve money table includes the various balance sheet items under various heads. In Exhibits 7 and 8 we link RBI's balance sheet with reserve money table. Though, we must point that the figures may not match in WSS released every week as we do not know the details of Assets and Liabilities mentioned in Table 1. It is important to note that Government deposits (both centre and state) which form as liabilities of RBI are not included in exhibit 7 as government is considered as an issuer of currency and not really seen as a monetary liability of RBI.



| <b>Exhibit 7: Linking RBI Liabilities with Reserve Money Components</b>   |   |
|---|---|
| <b>Liabilities in Balance Sheet (WSS Table 1)</b>   | <b>Components of Reserve Money (WSS Table 8)</b>  |
| i) Notes Issued<br>Notes in Circulation<br>Notes held in Banking Department   | i) Currency in Circulation (includes notes in circulation, rupee coins and small coins) |
| ii) Deposits (just rearranged from Table 1)<br>Scheduled Commercial Banks<br>Scheduled State Co-operative Banks<br>Other Banks (includes Other Scheduled Cooperative Banks and Non-Scheduled State Cooperative Banks) | ii) Bankers' Deposits with RBI  |
| iii) Deposits<br>Others<br>Rupee Deposits from Foreign Central Banks and Foreign Financial institutions<br>Deposits from Indian Financial Institutions (Nabard, EXIM, Primary Dealers, Miscellaneous Accounts etc)    | iii) "Other" Deposits with RBI  |
| iv) Other Liabilities (this comes in Non-monetary liabilities shown in Exhibit 8)   |   |
| Total Liabilities (i+ii+iii-iv) (in Table 1 we add all the liabilities. Here in order to match with reserve money we exclude other liabilities and accumulated retirement benefits)                                   | Reserve Money Components (i+ii+iii)   |
| Source: RBI   |   |

| <b>Exhibit 8: Linking RBI Assets with Reserve Money Sources</b>  |  |
|--|--|
| <b>Assets in Balance Sheet (WSS Table 1) (rearranged from the original)</b>  | <b>Sources of Reserve Money (WSS Table 8)</b>  |
| i) Rupee Securities (Including Treasury Bills) (both issue and banking departments; see exhibit 4 for details)<br>ii) Loans and Advances<br>Central Government<br>State Governments  | (i) Net RBI Credit to Government<br>of which : to Centre   |
| iii) Loans and Advances<br>NABARD<br>Scheduled Commercial Banks<br>Scheduled State Co-operative Banks<br>Industrial Development Bank of India<br>Export-Import Bank of India<br>Others<br>iv) Bills Purchased and Discounted<br>Commercial<br>Treasury<br>v) Investments | (ii) RBI Credit to Banks & Comm. Sector<br>o/w : to Banks (includes NABARD)  |
| vi) Foreign Currency Assets (both issue and banking departments)<br>vii) Gold Coin and Bullion (both issue and banking departments)  | (iii) Net Foreign Exchange Assets of RBI   |
|  | (iv) Government's Currency Liabilities to the Public (rupee coins and small coins; also included in currency in circulation in Components of |



|   |  |
|---|--|
|   | Reserve money)   |
| viii) Other Assets (subtracted from Gross Non Monetary Liabilities)   | (v) Net Non-Monetary Liabilities of RBI (NNML)<br>Gross NML = Other liabilities +<br>Accumulated retirement Benefits<br>Net NML = Gross NML - other assets |
| Assets = (i +ii+iii+iv+v+vi+vii) (in balance sheet we add all the items. For reserve money purposes we exclude other assets which comes in NNML)  | Reserve Money Sources = (i+ii+iii+iv-v)  |
| <i>Note: Foreign currency assets include investments in foreign currency denominated bonds issued by IIFC(UK) since March 20 2009. The changes in this investment form part of reserve money.</i> |  |
| <i>Source: RBI</i>  |  |

As explained above, reserve money is nothing but liabilities of RBI. There are mainly two ways by which RBI creates reserve money – currency in circulation and bank reserves. We usually assume currency to be the only way RBI can create money but bank reserves forms a very important part. Currency in circulation involves printing press whereas bank reserves can be created by crediting bank reserves with RBI. To simplify things further, issue department creates reserve money by printing currency and banking department creates reserve money by crediting bank reserves. To create reserve money some transactions need to happen in sources of reserve money as well. Let us look at some ways in which RBI creates reserve money.

- **Buying Government bonds via Open Market Operations:** Say RBI does an OMO of Rs 10,000 Cr. This leads to increase in RBI credit to Government in Sources side and a subsequent increase in bank reserves. All central banks have the power to create reserve money by either printing currency or increasing bank reserves. Banks maintain reserves as part of CRR requirements in current account with RBI. RBI credits current account of banks at RBI thus leading to increase in bank reserves at RBI and reserve money.

In Banks Balance sheets, the investment in G-sec declines but reserves with RBI rises. The overall amount in the banks' balance sheet does not change. Banks can then either maintain these excess reserves with RBI or withdraw the reserves and lend it to its customers. It is just a flow of accounts from RBI to Bank and then Banks customers. In this way

| RBI's Reserve Money         |        |                          |        |
|-----------------------------|--------|--------------------------|--------|
| Components                  |        | Sources                  |        |
| Bank Reserves               | +10000 | RBI credit to Government | +10000 |
| Net change in Reserve Money |        | +10000                   |        |

| Banks' Balance Sheet        |  |                            |         |
|-----------------------------|--|----------------------------|---------|
| Liabilities                 |  | Assets                     |         |
|                             |  | Bank's investment in G-Sec | - 10000 |
|                             |  | Banks Reserves with RBI    | +10000  |
| Net change in Balance sheet |  | No Change                  |         |

Reserve money creation via this route could be of both longer and shorter tenure. For instance, RBI lending via its LAF repo window is nothing but creation of reserve money for overnight purposes. In LAF repo operations, RBI simply increases the banks reserves which helps banks address their liquidity deficits and takes rupee securities on an overnight basis. The transaction is reversed the other day. This makes the overall creation of reserve money a complex process.



- **Buying foreign currency assets:** As explained above, RBI is responsible for issuing currency in the system. Currency in turn has to be backed by assets. Since 2005-06, RBI has not increased rupee securities to back issuance of currency. Currency circulation has increased either via rise in Forex assets. Hence as forex assets increase, RBI can either increase currency in circulation (Issue department) or just increase bank reserves (banking department) to pay banks for the transaction. Both ways, reserve money rises in the system.

In the below example, we assume RBI buys 10,000 Cr of forex assets and uses 3000 Cr to increase currency in circulation and 7000 to increase bank reserves. In case RBI buys forex from banks, banks forex assets will decline. However, if it just uses banks to pay for their transactions to other agencies, banks just act as conduits and transfer the reserves to the agency.

| RBI's Reserve Money     |       |                                    |        |
|-------------------------|-------|------------------------------------|--------|
| Components              |       | Sources                            |        |
| Currency in circulation | +3000 | Net Foreign Exchange Assets of RBI | +10000 |
| Bank Reserves           | +7000 | Issue Dept.                        | +3000  |
|                         |       | Banking Dept.                      | +7000  |
| Reserve Money           |       | +10000                             |        |

## V. Analysis of WSS – Some Examples

- **OMO in 2011-12:** Based on above, we looked at the impact of OMO conducted by RBI in 2011-12 on its balance sheet/reserve money. RBI started its OMO from 24-Nov-11 to aid in the high deficit liquidity conditions. We can use this as an experiment to understand the impact of OMO on RBI's balance sheet. It is important to note that there will not be a one to one matching of items as RBI engages in many transactions on a given day and what we see is aggregate impact of these various transactions. Moreover, as we get RBI's balance sheet on a weekly basis, we note the changes over a week whereas OMO is just for that particular day. Despite these limitations, we can expand above analysis to understand the impact of OMO on RBI's balance sheet.

OMO's are settled on a T+1 basis. Till 29-Dec-11, OMO's were done on a Thursday and hence settled on a Friday. WSS is also released on a Friday with a weekly lag. Hence, one can observe the changes more closely on OMOs done till 29-Dec-11. After 29-Dec-11 OMO's are being done on a Friday and hence settlement is on Monday. Observing the changes in balance sheet due to OMO becomes difficult and complex after 29-Dec-11.

Exhibit 4 presents this case study. Ideally, we should be seeing OMOs accepted in a given day (1) equal to increase in rupee securities (2), bank reserves (3) and finally reserve money. However as explained in this section above, the amounts do not match as WSS shows changes in RBI's balance sheet over a week whereas OMO is just one of the many transactions on a given day. It is important to note that in Rupee securities, T-bills are also included. There is both fresh issuance and maturity of T-bills every week. This could be impacting RBI's holdings of rupee securities as well and hence we do not see a close one to one change of OMO purchases in Rupee securities column.



| <b>Exhibit 9: Impact of OMO Purchases on RBI's Balance Sheet/Reserve Money (in Rs cr)</b> |                 |                         |                               |  |                                  |                         |
|---|-----------------|-------------------------|-------------------------------|--|----------------------------------|-------------------------|
| Open market operations  |                 |                         | Weekly Statistical Supplement |  |                                  |                         |
| OMO Auction Date  | Settlement Date | Amount Purchased by RBI | WSS for the period            | Change in Rupee Securities (net of LAF repo) | Change in Bank Reserves with RBI | Change in Reserve Money |
|   |                 | 1                       |                               | 2  | 3                                | 4                       |
| 24-Nov-11   | 25-Nov-11       | 9435                    | 25-Nov-11                     | 8420   | 12986                            | 7912                    |
| 1-Dec-11  | 2-Dec-11        | 5783                    | 2-Dec-11                      | 3508   | -23344                           | -22720                  |
| 8-Dec-11  | 9-Dec-11        | 9093                    | 9-Dec-11                      | 9834   | 19566                            | 31355                   |
| 22-Dec-11   | 23-Dec-11       | 8790                    | 23-Dec-11                     | 39345  | 58207                            | 54735                   |
| 29-Dec-11   | 30-Dec-11       | 8109                    | 30-Dec-11                     | 8496   | -57256                           | -63226                  |

*Note: To read WSS for the period we need to read WSS of a later week. So, balances indicated for 25-Nov-11 will be in WSS released on 2-Dec-11*  
 Source: RBI

Table 21 of WSS is titled as Government of India: Long and Medium Term Borrowings - 2011-2012. In this we get RBI's OMO transactions in a week. As this is just an account of RBI's OMO operations in a week, we can match this with RBI's OMO purchases more closely. However as this is just an account statement, it does not indicate the same being shown in balance sheet and reserve money as explained above.

| <b>Exhibit 10: Linking OMO and Table 21 of WSS (in Rs Cr)</b> |                 |        |                 |                     |                         |               |
|---|-----------------|--------|-----------------|---------------------|-------------------------|---------------|
| OMO Purchases   |                 |        | Table 21 of WSS |                     |                         |               |
| Auction date  | Settlement date | Amount | WSS date        | Change in OMO Sales | Change in OMO Purchases | Net Purchases |
| 24-Nov-11   | 25-Nov-11       | 9435   | 25-Nov-11       | 814                 | 10259                   | 9445          |
| 1-Dec-11  | 2-Dec-11        | 5783   | 2-Dec-11        | 74                  | 5854                    | 5780          |
| 8-Dec-11  | 9-Dec-11        | 9093   | 9-Dec-11        | 30                  | 9123                    | 9093          |
|   |                 |        | 16-Dec-11       | 0                   | 0                       | 0             |
| 22-Dec-11   | 23-Dec-11       | 8790   | 23-Dec-11       | 0                   | 9280                    | 9280          |
| 29-Dec-11   | 30-Dec-11       | 8109   | 30-Dec-11       | 165                 | 9699                    | 9534          |

*Note: To read WSS for the period we need to read WSS of a later week. So, balances indicated for 16-Dec-11 will be in WSS released on 23-Jan-11*  
 Source: RBI

- Reserve Money in 2011-12:** In its recent macroeconomic and monetary development report, RBI said reserve money creation has been low this year. In Apr-11 to 20-Jan-11 period reserve money has grown by just 5.4% compared to 11.7% in same period last year.

| <b>Exhibit 11: Growth in Reserve Money Components and Sources (in %)</b> |                     |                     |
|--|---------------------|---------------------|
|  | Apr-10 to 21-Jan-11 | Apr-11 to 20-Jan-12 |
| Reserve Money  | 11.7                | 5.4                 |
| Components   |                     |                     |
| Currency in circulation -Total   | 16.0                | 9.9                 |
| Bankers' deposits with RBI   | -2.5                | -4.2                |
| 'Other' deposits with RBI  | 163.7               | -51.3               |
| Sources  |                     |                     |
| RBI's Claims on - Government (net)                                       | 40.0                | 34.0                |



|   |       |      |
|---|-------|------|
| RBI's Claims on Banks & Commercial sector       | 165.0 | 69.5 |
| Net foreign exchange assets of RBI              | 8.2   | 8.9  |
| Government's currency liabilities to the public | 7.8   | 8.9  |
| Net non-monetary liabilities of RBI             | 21.1  | 50.3 |
| <i>Source: RBI</i>                              |       |      |

The main reason for lower growth in reserve money is because of lower growth in currency in circulation in 2011-12. Currency in circulation forms around 70% of reserve money and hence changes in former determine the latter. If we recall from above, currency in circulation is mainly backed by forex assets. In 2010-11, forex assets were higher on account of rise in FII and FDI inflows in 2010. In 2011-12, currency in circulation is lower despite a higher rise in forex assets. This is because forex assets (in rupee terms) in 2011-12 have risen because of depreciation of rupee. These valuation gains are also shown in Gold and Currency revaluation account included in net non monetary liabilities. Hence, unlike 2010 we see a lower growth in currency in circulation.

## VI. Conclusion

Balance sheet analysis of central banks has become a very interesting topic post the great recession. Understanding RBI's balance sheet and its changes is critical to our understanding of monetary economy. The above analysis is an attempt to understand RBI's monetary operations using Weekly Statistical Supplement released by RBI. The analysis is imperfect as balance sheet is changing continuously and it is difficult to pinpoint the reasons for changes in reserve money. However, one does get some clarity over the various items in the balance sheet/reserve money and how these items together lead to changes in RBI's reserve money. In this analysis, we have just covered tables related to RBI operations. We will cover other tables of WSS related to banking and financial intermediaries in another report in future.



**STCI Primary Dealer Ltd.**

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