



## Systemic liquidity deficit – Causes & Concerns

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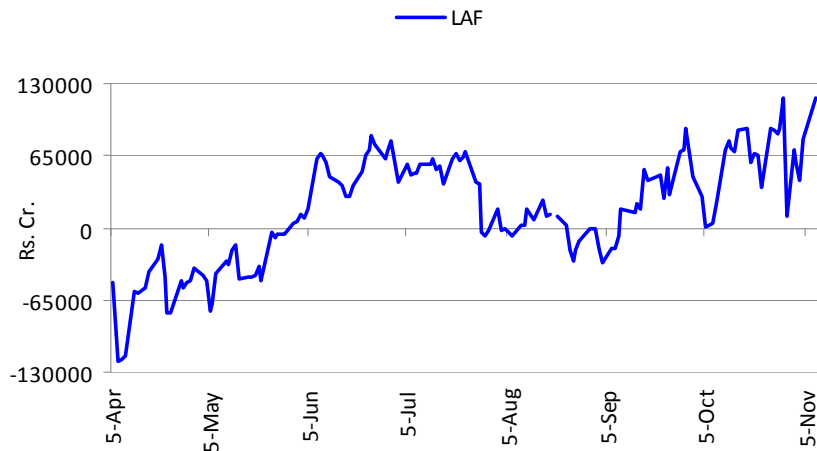
The year 2008-09 witnessed most economies being pumped with abundant liquidity by Central Banks globally to spur demand and revive economic growth. With unprecedented fiscal stimulus rolled out globally, a tough task lay ahead for the Central Banks to unwind this deluge of liquidity. However, two years later, several economies still seem to be struggling to manage just the right amount of liquidity to boost demand whilst not leading to future inflationary pressures. The global liquidity seems to have found its path from the developed economies to the emerging nations, mandating the latter to implement capital controls to help curb future inflationary pressures.

Since systemic liquidity in more than one way influences every aspect of economic growth, this variable has always managed to gain significant importance. Money supply in the economy, credit off-take, deposit growth, inflation, GDP growth as a whole, just to name a few, are all a function of the systemic liquidity. Government bond yields and the overall interest rate structure too are dependent on the funds available in the system. On the domestic front, the current fiscal year has marked persistent liquidity concerns post quarter one with expectations increasingly coalescing for the deficit to continue. The problem remains unique amidst the ambiguity with respect to the reasons behind the deficit. The year has marked an extreme deluge as well as extreme tightness over a span of just seven months.

The liquidity deficit remains a puzzle and several measures have been suggested that can be taken to aid the current situation. This report however aims at studying the various developments on the domestic liquidity front and attempts to trace the causes of the volatility in the systemic liquidity in the first half of the fiscal.

### I. Monetary Aggregates:

- Infusion at the LAF window

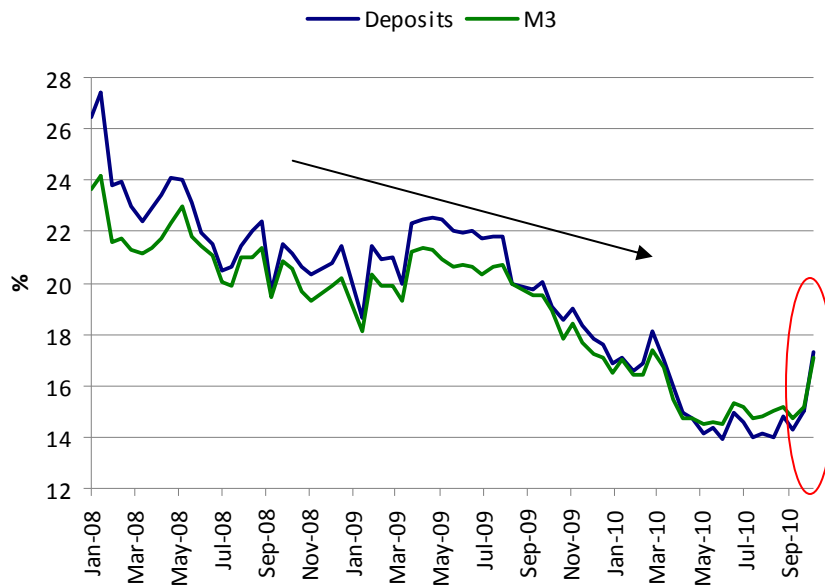


*Note: Graph shows infusion of funds by the RBI into the system via the LAF window. -ve indicates excess liquidity in the system*



The absorption/ infusion of funds at the LAF window broadly depicts the systemic liquidity scenario. In the current year, the LAF window has seen significant volatility with respect to both the quantity and the direction of the fund flow between the Central Bank and the system as a whole. The beginning of the fiscal year marked surplus liquidity to the tune of Rs.1,00,000 Cr while the current times mark a deficit of around Rs.1,00,000 Cr.

- Deposit Growth v/s M3 growth



The significant reduction in the interest rates post the Lehman crisis led to a decline in the deposit growth rate. Surprisingly while the RBI provided for ample systemic liquidity, the M3 growth too witnessed a downfall. With the reversal of the monetary accommodation, the deposit growth and the M3 growth have picked up recently. M3 being a multiple of the reserve money (M0) implies that an increase in M3 is either due to an increase in M0 or an increase in the money multiplier (velocity of money).

	M3 (Rs. Cr)	M0 (Rs. Cr)	M3/M0
26-Mar	5583259	1104986	5.05
24-Sep	5872194	1174538	5.00

The money multiplier has marginally gone down implying that the rate of M0 growth has been greater than the growth rate of M3. Money base (M0) in a system largely defines the broader systemic liquidity scenario. Hence it becomes imperative to consider the behavior of money creating parameters while analyzing systemic liquidity. The three ways in which the Central Bank can alter the quantum of money in a system are as follows:



### 1. Change in CRR

The RBI has in the current fiscal raised the CRR by 25 bps from 5.75% to 6% in its April policy. This move drained the system by an approximate Rs.12,000 Cr to be maintained as CRR requirement over the NDTL.

### 2. Forex intervention

According to the data released in the RBI bulletin, the RBI has not intervened in the market up till September 2010 this fiscal. This implies that money has not been created/ curtailed via Forex intervention.

### 3. Open Market Operations (OMO)

In wake of the tight liquidity witnessed since June 2010 and the comfort of liquidity deficit to be within 1% of NDTL, the RBI announced OMO purchases to provide liquidity comfort. The RBI so far has bought back securities worth Rs.8,352 Cr from the market participants, infusing an equivalent amount of liquidity (however in November – not in the period under review).

## II. The Fiscal scenario:

On the fiscal front, Government expenditure comes in as an inflow to the system. On the other hand, the Government revenue, in the form of taxes and other non tax revenue is an outflow of liquidity from the system. The fund flow with respect to the Government thus appears as follows:

Fiscal Side fund flow	6 months (Apr-Sep)	
	Inflow	Outflow
Liquidity Monitor (Rs. Cr.)		
Total Receipts		404725
Tax Revenue		233415
Non tax Revenue		164819
Expenditure	537977	
Net Inflow /outflow	133252	

(Source: Controller General of Accounts)

The table above includes all the key factors that have influenced systemic liquidity in the current year, viz:

- 3G auction payout – Rs.67,719 Cr (non-tax revenue)
- BWA auction payout – Rs.38,543 Cr (non-tax revenue)
- Sudden liquidity strain due to advance tax payments – around Rs.30,000-40,000 Cr (tax revenue)
- Month end government spending



The table above marks a net inflow of Rs.1,33,252 Cr which is nothing but the difference between the Government revenue and Expenditure, viz the fiscal deficit. The Government conducts borrowing to bridge this fiscal gap. Thus for April to September 2010, on the monetary side we have,

Liquidity Monitor (Rs. Cr.)	Inflow	Outflow
Treasury Bills	177000	161000
Coupon Payment	81661.73	0
SDL Auction/Redemption	12490.87	49361.81
G-sec Auction/Redemption	80807	284000
Net Inflow /outflow	0	140426.2

(Source: RBI, Internal database)

The monetary side of liquidity results in an outflow from the system which is largely in line with the net expenditure incurred by the Government. In this case we observe that the monetary outflow (Rs.1,40,426.2 Cr) is greater than the fiscal deficit (Rs.1,33,252 Cr) by around Rs.7,174.2 Cr.

The Government had announced supplementary expenditure grants of around Rs.54,600 Cr in August. The amount spent out of this additional grant remains unknown.

	Budgeted	Spent till Sept	Reported till Sept	% of Budgeted
Expenditure	1108749	537977	537977	48.52
Additional Grants	54600	??	537977	??

(Source: Controller General of Accounts)

If we compare the actual expenditure incurred till September (Rs.5,37,977 Cr) as reported with the initial Budgeted expenditure (Rs.11,08,749 Cr) the ratio stands at 48.52% (almost in line with 50% as it should be for the first half of year). However, if the actual expenditure also includes a part of the supplementary grants given, the ratio of the expenditure incurred (other than grants) to initial budgeted expenditure would decrease. The grants (Rs.54,600 Cr) have yet not been accounted for in the total Budgeted expenditure for the year. Hence, any expenditure incurred from the grants money implies that the Government has not been spending as Budgeted.

	Receipts		Expenditure		% of Budgeted	
	Budgeted FY	Actual (H1)	Budgeted FY	Actual (H1)	Receipts	Expenditure
2008-09	617597	246427	750884	349081	39.90	46.49
2009-10	619842	251073	1020838	448848	40.51	43.97
2010-11	727341	404725	1108749	537977	55.64	48.52

Another stark trend that comes out is that through the last three years the percentage of actual receipts to the total budgeted in the first half of the year has increased. The current year has seen a steep rise to 55.64% due to the buoyant revenue collections. However a similar increase is not noticed on the



expenditure side. If we add the grants for the current year, the percentage of expenditure would drop further from 48.52%. This probably implies that the Government is not spending at the desired rate.

Another important aspect to be considered while tracing liquidity is the amount of deposits that the Government maintains with the RBI.

Govt deposits with RBI	(Rs. Cr)
April	101
September	15000

(Source: RBI)

According to the MoU signed between the RBI and the Government of India any cash surplus with the Government upto Rs.50,000 Cr is reported as Rs.101 Cr. Any amount reported above Rs.101 Cr implies Rs.50,000 Cr of funds being parked in G-Secs plus the quoted amount as the total surplus funds with the Government. From the data above we get that Government cash surplus in September end stood at around Rs.65,000 Cr. This amount forms a significant portion of the tightness witnessed in the recent times.

### III. In a nutshell:

March 31 marked LAF absorption (surplus systemic liquidity) of around Rs.990 Cr. The last week of September marked an average infusion of funds by the RBI to the tune of Rs.64,655 Cr (liquidity deficit). The deficit thus stands at Rs.65,645 Cr (addition of the above two) over the span of six months. Several developments affecting systemic liquidity during these six months have been explained above. Broadly we look at the outflow from the system as follows:

	Outflow
Difference between Fiscal fund flow & Market borrowing	7174
CRR hike	12000
	19174

The total Rs.19,174 Cr contributes as a part of the total deficit of Rs.65,645 Cr seen as on September end compared to the start of the year. The reason for the balance deficit cannot be accounted to any particular outflow, the reason being, Government deposits with RBI stood at Rs.101 Cr at the beginning of the fiscal year. The same could imply any cash surplus from Rs.1- Rs.50,000 Cr.

In a very crude form, we may summarize as follows: The total liquidity between the Government (cash surplus), RBI (CRR action) and the system (LAF amount) would sum up around April and September.

April	September
Systemic liquidity (+990)	Systemic liquidity (-64655)
Government balances (Amnt X)	Government balances (65000)
Sterilization by RBI (0)	Sterilization by RBI (12000)
Total 1	Total 2



$$990 + X + 0 = - 64655 + 65000 + 12000$$

$$X = 11,355 \text{ Cr}$$

The Government cash surplus in the beginning of April could be around Rs.11,000 – 11,500 Cr which gets reported as Rs.101 Cr in the WSS.

While we have considered the period April to September for the review, liquidity deficit became a grave concern going into November. The week on week auction outflows added to the pressure. The LAF infusion remained stubbornly high at an average of around Rs.1,15,000 Cr.

#### **IV. What lies ahead:**

The current scenario demands the Central Bank's keen attention. Going into December, the liquidity scenario will tighten further with the advance tax outflows. Another outflow of around Rs.45,000 Cr from the system would take the deficit to as high as Rs.1,50,000 Cr. The Central Bank has been closely monitoring the liquidity situation and acted accordingly at every step. Announcing the second LAF window on several instances, waiving off the interest on incremental access of LAF funds up to 1% of NDTL, OMO purchases, etc have been several efforts in this direction. The markets have started mulling several options that the RBI has at the given juncture, viz. CRR reduction by around 50bps, further waiver on the SLR up to 1%, reduction in T-Bill auction size, postponing the borrowing calendar to January-February, etc. While some may argue that a reduction in CRR would indirectly imply the reversal of the withdrawal process started in October 2009, the current situation seeks immediate measures. The RBI could announce a CRR cut for a limited period of time, till the system rides the advance tax outflow. The Central Bank could also support the Government borrowing by announcing OMO purchases for every auction. Since SLR securities are being utilized by the system to receive funds at the LAF window, the OMO purchases would not benefit the overall systemic liquidity, but would aid the sentiment for the borrowing to be conducted smoothly.



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