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LIQUIDITY MANAGEMENT FRAMEWORK OF RBI: THE UNFINISHED AGENDA

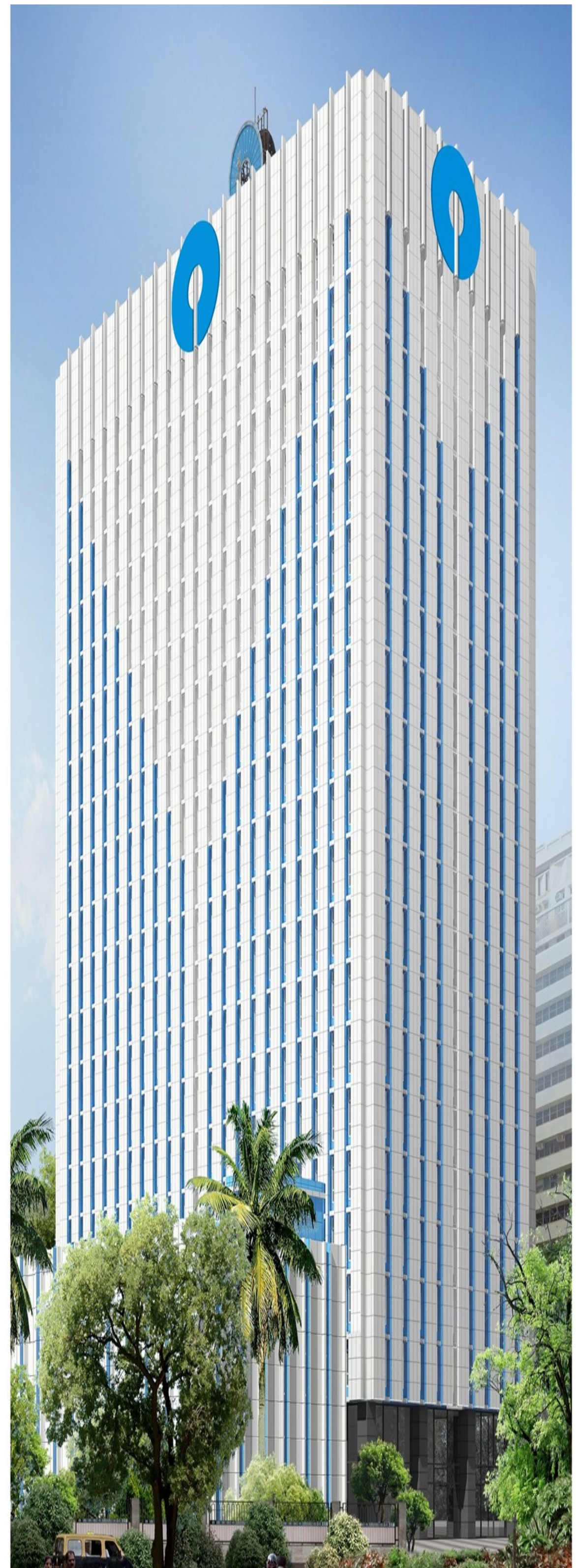
RBI needs to be commended for the several ingenious and bold moves in recent times to improve market microstructure, including the most recent step of swap transaction of augmenting liquidity management apart from frequent communication with markets.

Meanwhile, the new swap tool could have several implications. First rupee could appreciate from current levels as this move will complement the recently announced VRR route, Clearly, a clever ploy by RBI. Second, it is now clear that the RBI is unlikely to go through with OMO as a tool for liquidity, unless otherwise specified. Interestingly, disclosing the forward market lock/amount is not an established prerogative in banking parlance as this could initiate a speculative attack on currency in the future, as experience of Asian economies showed.

We believe this move might have been triggered by banks holding less of G-secs as a collateral for borrowing from the RBI window or even OMO transactions. We estimate that currently banks may have only around excess government securities of at most around 2.55% of NDTL available for borrowing and hence making OMO operations by RBI difficult. We suggest that banks may be allowed to use the full mandatory SLR for the purpose of maintaining HQLA as per the LCR requirement or allowing CRR in the computation of HQLA. This will release around Rs 5 lakh crore worth of G-secs into system that could be used for on lending. In fact, specific banks (mostly having a strong retail franchise) can borrow from RBI only against their collateral (that could again be less than 2% of bank liabilities) and there are instances where banks (wholesale) cannot borrow and have to specifically mobilise public deposits to meet their funding requirement (incremental CD ratio is currently at >100%).

We believe the lacunae in current liquidity management by RBI is that presently frictional liquidity injection (repo transactions to compensate for Government cash balances) is substituting for durable liquidity (injections through OMO to compensate for currency leakage and liquidity impact of RBI forex intervention). We also find that movements in WACR could be liquidity-agnostic as it has hardly moved even when deficit has been as large as Rs 2.6 trillion. There could be several reasons for such, including imperfections in market infrastructure and different money market timings that must be addressed.

We also suggest that cash balances of Government can become a part of permanent liquidity by transferring them to banking system and putting them to productive use.



RBI SWAP AUCTION TO INJECT LONG-TERM LIQUIDITY

- On March 13, RBI decided to inject durable rupee liquidity for longer duration through long-term foreign exchange Buy/Sell swap auction of $5 billion for tenor of 3 years. This means that Rs 35,000 crores will be locked in over a period of 3 years, when the average liquidity deficit in the system since Oct 9 is at Rs 63,000 crores! Thus, clearly depending on the success of the scheme, the RBI could do more of such liquidity supportive measures. We are however not clear of why this particular measure is labelled as durable liquidity measure as RBI does inject / withdraw durable liquidity all through the year by doing forex swaps, the tenure and quantum of which is never disclosed though. Is it a new liquidity measure a new tool because it is now disclosed?
- Interestingly, disclosing the forward market lock/amount is not an established prerogative in forward market as this could initiate a speculative attack on currency in the future. Experience of South Asian countries are ample testimony to this. Nearly $28 billion was committed in forward market out of $30 billion foreign exchange reserves in Thailand in 1997 when the crisis happened as soon as this was made public, the currency and markets went into a turmoil.
- Nevertheless, this ingenious and bold move did take the market by surprise and it possibly rules out using OMO as a tool to inject liquidity at least for now (Rs 2.50 lakh crores in FY19). RBI in the past had expressed apprehensions of using OMO as a policy tool to inject liquidity as it apparently distorts the yield movements. It may be noted that the Government is the largest borrower in the financial market. However, it cannot be denied that RBI simultaneously still performs the acts of monetary and debt management functions and thus any liquidity action of the central bank cannot be rate agnostic.
- This new tool could have several implications. First, it is likely to result in lower cost of hedging for the importers with forward premia taking a dip. Spot rupee however, could initially depreciate if there is no visibility of chunky $ inflows that the market is expecting in March from several sources with hence the possibility of looming cash dollar shortage. But we believe rupee could decisively appreciate from current levels if the RBI is convinced about the source of $5 bn inflows from designated authorised dealers. Also, this move will complement the recently announced VRR route, wherein the stated objective of the regulator is to attract long term and stable FPI investments in the debt market while providing FPIs with operational flexibility to manage their investments ($ 4 bn has flowed in beginning February and till March 13). Furthermore, if such FII inflows flows into corporate bonds, the spread between g-secs and corporate bonds will narrow in the coming days and this will lower cost of funding. RBI reserves would also be augmented by $5 bn and it can help RBI recoup reserves. Thus, on all counts, rupee could appreciate from current levels or it could provide RBI to augment its reserves if it wants to hold the rupee at current levels! Clearly, a clever ploy by RBI.
- The success of this innovative liquidity management tool will crucially depend on how would the RBI incentivise the market players and bear the cost of this scheme. It will be just and fair if the RBI discloses the auction details (to the extent possible) as it could goad the market expectations in terms of future rupee movements. But it is now clear that the RBI is unlikely to go through with OMO as a tool for liquidity. This might result in yields hardening as opposed to OMO purchases (unless RBI thinks otherwise) where it has exactly the opposite impact. This could act as an enabler for further carry forward trade / capital inflows, unless the stage is set for a larger rate cut in April policy.

IS THIS MOVE TRIGERRED BY SHORTAGE OF GOVERNMENT SECURITIES WITH BANKS?

- All scheduled commercial banks currently hold SLR securities to the tune of 25.8% of NDTL (Net Demand & Time Liabilities), though the mandatory SLR requirement at present is 19.25%. Thus it seems banks are holding excess securities around 6.55% of NDTL. However, as per the LCR requirements banks are required to hold HQLA (High Quality Liquid Assets) equal to 100% of the net cash outflows equivalent to 19% of NDTL currently.
- Of this 19% HQLA, currently banks can only use 15% (given 13% FALLCR and 2% MSF) from the mandatory SLR of 19.25%. Thus excess SLR has to be used to fulfil the LCR requirement of maintaining HQLA at 19% of NDTL. Hence only around 2.55% of NDTL is the excess SLR that is actually available in the system that can be used as collateral for banks from borrowing from the repo market.

Estimate of Government Securities available with Banks (as % of NDTL)	
Actual SLR Holdings	25.80%
SLR Requirment	19.25%
FALLCR+MSF for meeting LCR Requirement	15.00%
High Quality Liquid Assets (HQLA) Requirement for LCR	19.00%
Residual SLR	2.55%
New (FALLCR+MSF) suggested	19.00%
Residual SLR	6.55%
Additional Securities relaesed	4.00%
Amount of additional securities released (Rs lakh crore)	5.20
Source: RBI, SBI Research	

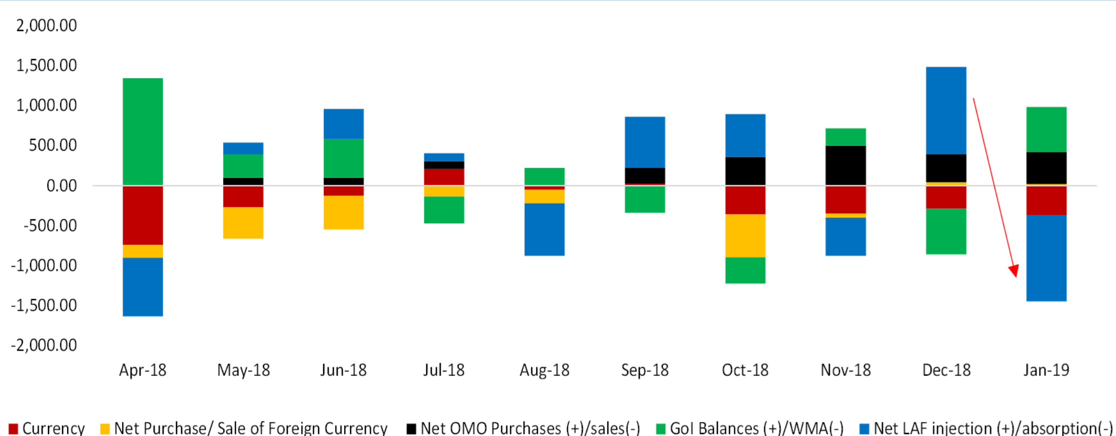
- In addition, every bank keeps securities amounting to 1% of NDTL for its daily transaction needs and another 1% for meeting emergency cash needs for borrowing from RBI. Thus we have only around excess government securities around 0.55% of NDTL available for borrowing and hence the shortage of government securities might be making OMO operations by RBI difficult, apart from repo operations.

WAYS TO INCREASE AVAILABILITY OF COLLATERAL AND HENCE OMO AS A POLICY TOOL

- There are two ways which could increase the availability of Government securities which then can be used for subsequent OMO operations.
- First is allowing the banks to use the full mandatory SLR for the purpose of maintaining HQLA as per the LCR requirement, ie from the current 15% it should be increased to 19%. This would result in releasing of securities to the tune of 4% of NDTL, amounting to Rs 5.2 lakh crore with the banking system.
- Alternatively, banks have also to set aside 27.25% of their NDTL for CRR, SLR and LCR. This is by far the highest among any developed or comparable developing country (even Brazil has reduced its reserve requirement to 25% from 40% earlier in the year). Given the overlap between CRR, SLR and LCR, we suggest RBI should allow Banks to count their CRR balances maintained with RBI (including the excess balance) as part of HQLAs for consideration under the LCR requirement. This will release 4% of security demand and also will release around Rs 5 lakh crore of funds, which would have multiple benefits for the economy, without compromising on stability.

RBI LIQUIDITY MANAGEMENT FRAMEWORK

- The issue of not having adequate collateral for doing liquidity injection by RBI brings us directly to the current working of the RBI liquidity management framework as it is exactly based on this premise. Specific banks (mostly having a strong retail franchise) can borrow from RBI only against their collateral (that could again be less than 2% of bank liabilities) and there are instances where banks (wholesale) cannot borrow and have to specifically mobilise public deposits to meet their funding requirement. Thus it is no wonder that incremental credit deposit ratio is running more than 100% now, with CD and repo rate spread at more than 100 basis points. Thus, the extant liquidity framework may not be a complete indicator of liquidity tightness in the system. The logical corollary of this argument is then why call rates are not showing up. We will explain this in next section.
- RBI needs to be commended for bringing out the contours of liquidity management in a recent paper that the markets may have missed out. In Feb'19 issue of RBI bulletin, there was an excellent article (Contours of Liquidity Management: Developments During 2018-19) succinctly summarise the liquidly operations by RBI during three quarters of FY19. According to the article, the systemic liquidity underwent significant shifts in the first three quarters of FY19. While the liquidity conditions generally remained in surplus during Q1 FY19, it gyrated during Q2 and generally remained in deficit mode during Q3. The article articulated that how RBI still managed the liquidity situation in Q2 and Q3 where fears of global trade tensions intensified and faster than anticipated normalisation of the US monetary policy led to capital outflows that exerted depreciation pressure on rupee. We estimate that the system has again moved into a deficit mode in Jan 19 (latest data available), with reverse repo transactions outpacing repo as PCA banks may have been parking their surplus funds with RBI.
- We believe the lacunae in current liquidity management by RBI is that presently frictional liquidity injection (repo transactions to compensate for Government cash balances) is substituting for durable liquidity (injections through OMO to compensate for currency leakage and liquidity impact of RBI forex intervention).



Source: RBI, SBI Research, Estimates for Govt Balances are taken from Government of India Surplus Cash Balance Reckoned for Auction as on date

- Experience suggests that the provision of short term/frictional liquidity does not substitute fully for needed durable liquidity, though durable liquidity can substitute for short term/frictional liquidity needs (*RBI monetary policy statement: April 2016*) For example, when the currency leakage is combined with the liquidity outflows/ forex sales which took place this year, amid the FII outflows, then RBI has been able to just compensate 51% through the durable liquidity method till Jan'19. On the other hand, till Dec'18 the total amount of repo injections has more than fully compensated the variation in Government cash balances.
- To quote from RBI policy, April 2016: *Going forward, the Reserve Bank intends to first meet requirements of durable liquidity, and then use its fine-tuning operations to make short term liquidity conditions consistent with the intended policy stance. This may result in seemingly anomalous situations in which the Reserve Bank injects durable liquidity even when it is using short term instruments to withdraw excess short term liquidity, but such actions will be consistent with our dual objectives of liquidity management.*

REFORMS IN WEIGHTED AVERAGE CALL RATE

- As per RBI, the effectiveness of liquidity management lies in the precision with which the WACR – the operating target of monetary policy, based on the recommendations of the Working Group on Operating Procedure of Monetary Policy – can be aligned with the policy repo rate within the LAF corridor and during 2018-19 (Apr-Dec). The WACR generally remained below the repo rate while liquidity conditions oscillated between surplus and deficit conditions.
- Over a period of time, WACR has however lost its significance as the operating target does not perfectly reflect the liquidity situation of the banking industry, because of reasons outlined below.

1. Reduced market and skewed Call Rate movement through the day

- Over the years, the share of call money has declined significantly (currently around 10% compared to 60% share of TREP market and remaining 30% of market Repo) with market participants, including banks, increasingly relying on collateralised overnight segments, especially TREP, for their overnight liquidity requirements.
- On examination we find that movements in WACR could be liquidity-agnostic as it has hardly moved even when deficit has been as large as Rs 2.6 trillion.
- The weighted average overnight call money rate (WACR) is also not an appropriate instrument of operating target given the fact it is highly skewed. In the morning (the first hour of trading in the inter-bank call money market usually accounts for about 75-80% of the day's volume as most of the market participants are unable to assess their inflows/outflows for the day in the absence of a robust liquidity forecasting framework) the call rate is high and in the evening it is low as some banks, including -scheduled co-operative banks, District Central co-operative banks and State co-operative banks, dump their excess liquidity in the call market after netting their positions in other markets. This is a regular feature and distorts the WACR.

- Also, most of the co-operative banks are not participants in the NDS-Call trading platform. Non-scheduled co-operative banks, District Central co-operative banks and State co-operative banks tend to enter the interbank call money market late in the trading hours - after the closure of the collateralized market segments – and their lending activity increases during the second half of the day thus driving rates in southward direction.
- As it has mentioned in the RBI article that the absence of uniform market hours across all money market segments which are not in sync with RTGS timings often have a destabilising impact on the WACR towards the market's closure is also one of the issue with WACR. However, in this regard RBI announced the setting up of an internal group to comprehensively review timings of various markets and the necessary payment infrastructure for supporting the recommended revisions to market timings.

Call Money Rate (%)					
Date	Morning (9 am)	Noon (1 pm)	Evening (4:30 pm)	Change btw 4:30 pm to 9 am	WACR
3/12/2019	6.25	6.25	6.00	-25	6.14
3/11/2019	6.30	6.25	6.00	-30	6.16
3/8/2019	6.30	6.25	6.05	-25	6.15
3/7/2019	6.25	6.20	6.05	-20	6.14
3/6/2019	6.25	6.25	6.20	-5	6.18
3/5/2019	6.25	6.23	6.05	-20	6.15
2/28/2019	6.35	6.27	6.10	-25	6.19
2/27/2019	6.30	6.25	6.20	-10	6.26
2/26/2019	6.35	6.25	6.00	-35	6.19
2/25/2019	6.40	6.35	6.35	-5	6.28
2/22/2019	6.35	6.35	6.40	5	6.34
2/21/2019	6.45	6.35	6.10	-35	6.28
2/20/2019	6.40	6.40	6.10	-30	6.29
2/18/2019	6.30	6.35	6.50	20	6.31
2/14/2019	6.25	6.25	6.40	15	6.28
2/13/2019	6.35	6.20	6.05	-30	6.14
2/12/2019	6.45	6.35	6.05	-40	6.27
Source: SBI Research					

Average Net LAF & WACR		
Month	Average net LAF deficit (-) /surplus (+)	Monthly Average WACR
	Rs Billion	%
Apr-18	496	5.90
May-18	142	5.91
Jun-18	140	6.10
Jul-18	-107	6.16
Aug-18	30	6.36
Sep-18	-406	6.46
Oct-18	-560	6.45
Nov-18	-806	6.40
Dec-18	-996	6.47
Jan-19	-335	6.39
Feb-19	-653	6.30
Memo:		
16-Mar-16	-2665	7.02 (Repo: 6.75%)
Source: RBI; SBI Research		

2. WACR is Liquidity Agnostic

- It is strange that WACR is not affected by liquidity situation. During Sep-Dec'18, liquidity deficit as given by average net LAF deficit was in the range of Rs 400-1000 billion but the WACR was around 6.45% only, when for the most part of the quarter repo rate was at 6.5%.
- Even when the liquidity deficit was as high as Rs 2.6 trillion, the WACR for that particular date was only 7.02%.

3. There is need to develop the term money market to provide sufficient liquidity beyond the overnight time slot.

- Though call money market is suitable for managing day-to-day liquidity, it is insufficient for the short-term to medium-term liquidity management purpose due to lack of depth in term money market. The term money market, which has a monthly size of Rs 4.0-6.5 lakh crore, in India has four components. The term money market has the lowest share (less than 2%) in total term market in India. The development of term money market is essential in order to manage liquidity over a short period of time and the recent steps in transmission area step in the right direction.

Term Segment Market in India (Rs Crore)						
Month	Notice Money	Term Money	CBLO	Market Repo	Total	Term Money as % of Total Term Market
Jan-19	64192	6451	260195	73155	403994	1.6%
Dec-18	88311	5004	281930	60777	436022	1.1%
Nov-18	61143	6464	399344	191253	658205	1.0%
Oct-18	38031	7584	301177	140775	487567	1.6%
Sep-18	56489	5403	175601	245314	482807	1.1%
Aug-18	82620	10968	223893	317514	634994	1.7%
Source: RBI; SBI Research						

WAY FORWARD

- The RBI has been relatively successful in addressing the attendant liquidity implications. Movements in durable and transient liquidity has been effectively addressed and the system has moved from a liquidity deficit in Q1FY19 to a fairly balanced liquidity regime by Q3FY19 at least from the prism of RBI liquidity. However, there may have been market disconnect with such liquidity management policies. We expect better synchronization in communication between RBI and market participants. This could in effect reduce volatility in financial markets.
- However, liquidity management per se still has some operational challenges like improving the market micro-structure, a proper indicator of liquidity tightness in the system, addressing sectoral liquidity mismatches and most importantly a delicate balance between effective mix of durable and transient liquidity injection.
- We believe, the unspent cash balance of the Government is now being auctioned by the RBI through repos, and this has its limitation in terms of amount and tenor. While RBI's steps do provide some comfort in terms of liquidity, the cash balances of Government can become a part of permanent liquidity only once they have been transferred to Banking system and can be put to productive use whereas cash borrowed under repo window as is being currently done, can at best be used to manage only short term mismatches. The Government, then, may choose to spend the money at its will, without disturbing the systemic liquidity. It will also provide a clear picture of the money available within the system, which will not get distorted by Government borrowing. This step would increase Government's revenue as the funds can be kept in an interest bearing account with the Banks.

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ABOUT US

The Economic Research Department (ERD) in SBI Corporate Centre is the successor to the Economic and Statistical Research Department (E&SRD). The latter came into being in 1956, immediately after the State Bank of India was formed, with the objective of "tendering technical advice to the management on economic and financial problems in which the Bank has interest and which required expert analysis".

After the first reorganization of the Bank, when specialized departments like Management Science, Management Information Systems, Planning and Market Segment Departments took over the statistical work of E&SRD, the Department was renamed as ERD.

However, with the ERD team now taking on multidimensional functionalities in the area of risk management , corporate analytics, strategy and so on, who knows, the time may have come to rename it again!

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