

## Re-aligning Liquidity & Interest Rate strategy for Banks & NBFCs post COVID-19

April 2020

In this article, we try to provide EY's point of view on the impact of the current economic situation on the liquidity and interest rate risk scenario of Indian banking and non-banking sector. We have highlighted the risk factors caused by the crisis and the steps that Banks and Non-Banking Financial Companies (NBFCs) should take to mitigate their liquidity and interest rate risk.

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## Background

The adversity caused by COVID-19 has brought the world economy to a standstill. With the pandemic showing no signs of slowing down, the potential economic loss is as brutal as the human loss. Its impact on India can also be seen with the increasing number of infected cases and casualties leading to a nation-wide lockdown. Sectors like airlines, tourism, hospitality and even small retail businesses have been severely impacted with this halt in the economy, which was already suffering from weakening GDP growth, low industrial output and increasing unemployment.

Since the outbreak of coronavirus in India and the subsequent lockdown of businesses, the stock market has been ripped by the bears with both Nifty and Sensex suffering their biggest one-day fall ever. FIIs have been on a selling spree causing the rupee to fall below 76 per dollar. In such unprecedented situation, the RBI has taken a number of steps to cease the fallout of the economy. From reducing policy rates for boosting liquidity in the banking sector to introducing moratoriums on loans for helping with the cashflow crunch in businesses caused by the lockdown, no stones are left unturned to combat the impact of the virus.

## Liquidity landscape

### Current crisis

Given the Covid-19 outbreak and its consequent impact on banks and NBFCs, Moody's Investors Service changed its outlook for the Indian banking system to 'negative' from 'stable' due to:

- ▶ Deterioration in financial institutions' asset quality and liquidity.
- ▶ Growing risk aversion in the system following stress on a prominent private sector bank causing funding and liquidity pressure.
- ▶ Credit flow to the economy already remains severely hampered because of severe liquidity constraints in the bank and non-bank financial sectors.

In view of the ongoing crisis, the Monetary Policy Committee (MPC) of the Reserve Bank of India has taken the below listed liquidity enhancing measures:

#### Regulatory measures

Cut in reserve ratio	Term repo auctions	Increased borrowing
Lowering the Cash Reserve Ratio (CRR) by 100 basis points to 3.0% unleashing primary liquidity amounting to INR 1,37,000 crore	Conducting auctions of Targeted Long-Term Repos Operations (TLTROs) of up to three years amounting to INR 1,00,000 Cr and INR 50,000 Cr in second tranche	Permitting banks to borrow overnight by dipping up to 3% into the Statutory Liquidity Ratio (SLR) as against the existing limit of 2%, releasing INR 1,37,000 crore

Together, these three measures are expected to inject a total liquidity amounting to INR 4.24 lakh crore. This conscious effort by the RBI may serve to reduce short term volatility. However, transmission may be lacking and measures on that front need to be intensified across Banks and NBFCs. Further, the reverse repo reduced rate to 3.75% to encourage banks to lend more.

Despite the above measures undertaken by RBI, Banks and NBFCs may face liquidity challenges. There are multiple risk factors which can create liquidity crisis for Banks & NBFCs. The immediate impact that institutions could face maybe -

#### 1. Near term liquidity mismatches

- ▶ New age banks, weaker private banks and co-operative banks could experience a run on their deposits portfolio, both in retail and corporate with wholesale deposits being more sensitive than retail deposits.
- ▶ NBFCs would face challenge in maintaining and augmenting deposit portfolio majorly due to shaken customer confidence and regulatory restrictions, post recent crisis with large NBFCs.
- ▶ Deferment in the loan repayment during RBI moratorium period impacting asset cashflows. Post moratorium period, the possible delinquencies in Q2 & Q3 would also impact liquidity more severely for small and medium sized NBFCs.

All this could cause a near term liquidity mismatch. Severity may increase with increase in percentage of loans opting for moratorium. The impact will be more severe in institutions with high credit-deposit (CD) ratio, as they continue to pay the interest and maturity amounts to their depositors.

The table below shows the maturity profile of key assets and liabilities across various types of banks. Almost 45% of the deposits and 57% of the borrowings are falling due within 1 year. This percentage is likely to increase given the above explanation. To balance this, only 30% of advances and 33% of investment cashflows are available which is further likely to reduce given the moratorium period of 3 months.



Liabilities/Assets	I. Deposits		II. Borrowings		III. Loans and advances		IV. Investment	
	2018	2019	2018	2019	2018	2019	2018	2019
a) Up to 1 year	45	44.4	56.3	57.4	33.6	29.2	30.6	32.7
b) Over 1 year and up to 3 years	24	24	16.8	16.5	28.4	37.9	13.9	14.1
c) Over 3 years and up to 5 years	10	10.2	9.8	10.3	12.5	12.4	11.3	11
d) Over 5 years	20.9	21.5	17.1	15.7	25.5	20.4	44.2	42.2

Source: RBI publication- Operations and Performance of Commercial Banks dated Dec 24th, 2019

- ▶ While NBFC customers opt for moratorium and cash-inflow gets deferred, NBFC themselves are not allowed to avail any moratorium by the Banks and will have to pay the interest. Further, NBFCs also have a huge borrowing of around Rs 9 lakh crore from the market via commercial papers (CPs) and debentures out of which INR 1.6 lakh crores of CPs and Rs 87,000 crores of NCDs are falling due by June'20. Redemption pressures in these instruments may lead to significant asset liability mismatch.

## 2. Stress on liquidity coverage ratio (LCR)

- ▶ Strain on near term cash inflows due to deferment in the loan repayment during RBI moratorium period.
- ▶ Banks may have to re-calibrate their deposit cashflow behaviour as there may be potential withdrawals in the near term due to cashflow challenges faced by customers.
- ▶ Huge draw downs on the credit lines provided to large corporates which the banks will need to account for.

All of these would amplify the net cash outflow component of the ratio thereby causing a severe stress on the institution's LCR.

## 3. Funding risk

- ▶ Recently two public sector Banks have shelved their plans to raise capital due to tepid markets. Private banks will find themselves at a further disadvantage. The RBI liquidity measure tools will start getting limited and are not substitute for long term funding requirement due to time horizon (one year). Institutions especially NBFCs with significant reliance on long-term wholesale funding will need to restructure their funding plans.
- ▶ Potential risk aversion of the investors due to COVID-19 will either squeeze funding channel such as CP, debentures for indifferently rated NBFC or will be costly. Potential credit loss in portfolios may result in lower securitisation deals thus further impacting NBFC's the fund-raising ability. However, there will be little relief for NBFCs registered towards agriculture, micro and small enterprises (MSEs) and housing sector, as these will be treated as priority sector during FY21 up to prescribed limits.
- ▶ The recent "arbitrary" written down of a prominent private sector bank's AT1 bonds will also have an impact on capital raising plans not only for NBFCs but also other lower rated companies. Given the above guidance from the RBI, we have come up with potential three scenarios on how the spread of COVID-19 and its impact can pan out in the future. We have already seen unprecedented market movements in the last two to three weeks, the below scenarios are built after reflecting on current market information.

#### 4. Intraday liquidity

Banks are a primary provider of intraday liquidity to equity market participants like asset management companies, insurance firms, and broking houses. In the current volatile market, liquidity position of these firms may get impacted and this coupled with the bank's projected liquidity and funding crunch may lead to bank/NBFC to seek RBI's support.

Tackling the situation -the art of possible	
Assess and secure the immediate cashflows	<ul style="list-style-type: none"> <li>▶ Although the moratorium period has kicked in and cashflows now could be deferred by 3 months, Banks and NBFCs should make its customers aware of the accrued interest adding up the interest burden. We assess that the accrued interest could one time cost a customer around 25% of his/her annual interest payment. The intention should not be to compel a customer to pay without deferring but to ensure a customer with good liquidity buffer or uninterrupted cashflows may pay without deferring.</li> <li>▶ With more people signing up the moratorium or addition of a month to the moratorium period, the liquidity sources should be planned well in advance as banks may face severe cashflow risk. Example of one of such measure can be offering incentives to the customers who sign up for moratorium but exit earlier or pay on time.</li> </ul>
Improved stress testing analytics and early warning indicators (EWIs)	<ul style="list-style-type: none"> <li>▶ Improving the stress testing framework by reassessing the existing scenarios and/or adding new scenarios to capture the range of the potential evolutions of the crisis and key emerging risks (such as lockdown to continue for the next x months with light recession). Evaluate degree of liquidity risk drivers and whether any emerging drivers need to be integrated or re-calibrated (such as, unfunded commitments, wholesale funding, and intraday liquidity).</li> <li>▶ Further the EWIs should be reassessed with a forward-looking perspective (given the specific exposures identified – do the current set of early warning indicators fully capture these risks). Also, reassess the EWIs from a backward-looking perspective (were there market signals in the past few days/weeks that should have been picked up by the framework).</li> </ul>
Project the liquidity positions	<ul style="list-style-type: none"> <li>▶ Although banks/NBFCs may be well equipped with the techniques for liquidity risk measurement, the existing practice of liquidity risk measurement may not be adequate. RBI is currently seeking daily LCR data from all banks. Although, this is a good risk monitoring technique, banks and NBFCs need to project its LCR (at least weekly, and daily if warranted) and consider all possible risks on the cashflows in next 30 days thereby giving time to the bank's Asset Liability Committee (ALCO)/Treasury/(ALM) desk to prepare and plan in case of any adverse situation. The severity of stress may increase as the impact of COVID-19 increases on the economy, due to pro-longed lockdown.</li> <li>▶ Most of liquidity reporting of a bank is on a static balance sheet, except a 90 days Short term dynamic liquidity statement (STDL). The STDL should also be leveraged as important measurement and monitoring tool in the current situation. The way banks project their balance sheet, should be reassessed by ALM desk and vetted by ALCO. Accurate projection can still be challenging and will need a close monitoring of impact on COVID-19 on the economy, containment progress and period, RBI and Government measures, general customer behavior, delinquencies, credit requirement and so on. Any stress, in-terms of breach of liquidity mismatch limit should be closely action-planned.</li> </ul>
Ensure effective and stronger contingency funding plan (CFP)	<ul style="list-style-type: none"> <li>▶ Build and ensure a strong and effective Contingency funding plan (CFP) as a part of resolution planning. Though, the CFP may not get triggered if the situation improves over a period, this could be the time where it should be definitely tested. Ensure an established Liquidity Crisis management group which is aware of daily and projected liquidity situation and the protocols in case the CFP triggers.</li> </ul>



	<ul style="list-style-type: none"> <li>▶ A methodology should be devised whereby if triggers are observed by the ALM desk while monitoring market activity against their liquidity stress indicators/other EWIs, CFP would get invoked. Regulatory relations teams should be part of the liquidity crisis management group under the CFP.</li> </ul>
Secure sources of funding	<ul style="list-style-type: none"> <li>▶ As the current scenario is unique, the funding channel should be reassessed on their availability, cost, term period and their commitment towards funding on an ongoing basis for both business as usual and contingency.</li> <li>▶ Mid-size NBFC and micro finance institutions (MFI) can leverage RBI's TLTRO 2.0 which mandates banks to lend at least 50% of funds availed, until April 2021. We believe there may be further such liquidity operations to ease funding pressure on NBFCs. The regulator might also open a general or special line of credit to the banks and especially for NBFCs as a lender of last resort.</li> </ul>

## Interest rate landscape

### Current crisis

One of the important tools in any economic scenario has always been the interest rates for any apex bank and hence banks and NBFCs will always be exposed to this factor. Apart from the recent rate cut by the RBI as an immediate response to the economic impact of COVID-19 in India, Fitch Solutions projected around 175 basis points rate cut by April 2021, with repo rate around 3.4% on account of the expected trend in macroeconomic factors and economic shocks from the COVID-19 outbreak.

It is evident that the interest rates could reduce further, and they will witness a downtrend until the pandemic ends and economic situation stabilizes not just in India but globally. Globally, around 45 countries have cut their key policy rates. Some countries like US, UK, Canada and Australia have reduced policy rates twice in a span of one to two weeks in the month of March 2020. However, amongst the emerging economies like India, there is scope of further 'unscheduled' reduction in the policy rates.

Banks and NBFCs will witness a tremendous pressure on the top line as well as the bottom line soon. The last thing institutions should be doing is losing out rupees on mismanagement of the liquidity and interest rate scenarios. From the interest rate scenarios perspective, as mentioned earlier banks and NBFCs need to brace further interest rate cut. However, should also consider the possibility of early containment of outbreak in India and inflationary pressure exerted by current liquidity loosening leading to uptrend in interest rates in early Q3 or Q4 FY21

NBFCs borrowing costs will not come down as quickly as they would expect RBI rate cut should bring. These costs represented by CP/CD rates or interest on debentures are driven by risk & return trade-off and liquidity in the market. Heightened risk aversion due to the COVID-19 will add to the complexity.

Tackling the situation - the art of possible		
Assess the impact using scientific methods	<p>From Interest rate risk in Banking Book (IRRBB) perspective, the two key questions to Treasurers, CFO and CRO will be</p> <ul style="list-style-type: none"> <li>▶ What is current (Static) exposure to Interest rate movement &amp; its impact in different IR scenarios.</li> <li>▶ How will the future movement (Dynamic) of Assets &amp; Liabilities on</li> </ul>	<p>These can be addressed by engaging the following risk measures</p> <ul style="list-style-type: none"> <li>▶ Interest rate repricing gaps</li> <li>▶ Short term Impact on Net Interest Income (NII)</li> <li>▶ Long term Impact on Economic Value of Equity (EVE)</li> </ul>



	<p>the Balance create an impact in different IR scenarios.</p>		
	<ul style="list-style-type: none"> <li>▶ Banks &amp; certain NBFCs in India do follow measurement of these parameters but often lack the necessary sophistication of behavioural economics and dynamic nature of balance sheet, embedded in the models.</li> <li>▶ Behavioural economics play a vital role in interest rate risk calculation, it impacts not only the institutions but also the retail or corporate customers of all categories as they leverage the optionality available in the product. For instance, with rate cut passed on to deposits, depositors looking for fixed income avenues, can move towards investing in higher yield small saving schemes (illiquid but safe).</li> <li>▶ Another possibility is that the fixed rate borrower pre-pay the loan and borrow at current interest rate. However, not all borrowers/depositors will act irrationally or in-line with above assumption, and exercise early redemption options. In order to manage this redemption risk, institution need to model their books to establish how much should be hedged, and for what term, to match their best expectations of cash flows.</li> <li>▶ Additionally, banks and NBFCs will have to assess in which quadrant they are, basis the composition and profile of the rate sensitive assets and liabilities of the institution in case of parallel interest curve shocks as shown in the figure. Generally, institution can be part of any quadrant basis their sensitive asset-liability mix, however majority may find themselves in the quadrant II</li> </ul>	<p><b>2</b></p> <p>NII in the direction of IR &amp; EVE Opposite</p> <hr/> <p>NII &amp; EVE move in opposite direction as IR</p> <p><b>3</b></p>	<p><b>1</b></p> <p>NII &amp; EVE move in the same direction as IR</p> <hr/> <p>NII in opposite direction as IR &amp; EVE in same</p> <p><b>4</b></p>
<p>NII and EVE interpretation</p>	<ul style="list-style-type: none"> <li>▶ Impact on NII and EVE should not only be part of ALCO agendas of the bank/NBFCs but should also be part of Credit Approval note, at least for high ticket loans and should be discussed in Credit Approval Committee.</li> <li>▶ Any adverse impact on NII and EVE should be assessed and hedged effectively. The hedging cost could be added as additional spread to the customer, if necessary.</li> <li>▶ As per the Basel standards, impact of regulatory interest rate shocks on EVE must not be greater than 15% of Tier 1 Capital</li> </ul>		
<p>Optimizing the balance sheet exposures</p>	<ul style="list-style-type: none"> <li>▶ Banks and NBFCs with more exposures towards rate sensitive assets (RSAs) as compared to rate sensitive liabilities (RSLs) will witness a greater impact on their NII.</li> <li>▶ Thus, in falling interest rate scenario such Bank/NBFC may accumulate low-cost near-term repricing liabilities which will mitigate the impact on NII. Alternatively, exposure can also be hedged appropriately.</li> <li>▶ In case of interest rate uptrend after medium term, repricing risk of RSLs need to be managed by locking into higher duration liabilities to the extent possible, at relatively lower rates</li> <li>▶ It is important to act proactively basis the future interest rate outlook in terms of the balance sheet realignment</li> </ul>		
<p>Leverage the market moment in trading portfolio</p>	<ul style="list-style-type: none"> <li>▶ As the banking book may witness the brunt, the trading book should be something a bank can leverage to ensure good contribution to Profit and Loss in the COVID-19 situation.</li> <li>▶ Treasurers must navigate the turbulent rates environment majorly in the rates and currency desks by capitalizing the market movements through judicious strategy, usage of limits effectively, classification from HTM (held to market) to AFS (available for sale) securities to capture monetization opportunities, manage repo strategy and manage the open position limits judiciously to take calibrated forex positions</li> </ul>		



	<ul style="list-style-type: none"> <li>▶ Treasury should judiciously access any arbitrage opportunities in fixed income and currency rate curves as there are temporary counter-cyclical movements leading to such opportunities. For example, there could be spikes in short term rates but there is also possibility that there will be a soft rate regime up to 5 or 6 years</li> <li>▶ A proactive treasury would play a pivotal role in risk defeasance and improve profitability. Although volatility will be imminent, it can be utilized with right rate strategies to increase the trading income</li> </ul>
Modulate the Spread	<ul style="list-style-type: none"> <li>▶ Currently, since the retail loans are benchmarked to external rate such as repo and corporate loans to external or internal benchmark such as marginal cost of funds based lending rate (for Banks and prime lending rate for NBFCs), spread is something the Bank can modulate in falling interest rate scenario to ensure the financial viability in any transaction.</li> <li>▶ Although spread is intrinsic to any bank and always need to be competitive, in situations of crisis even for any bank or NBFC staying afloat is important and we strongly feel the 'spread' can be such tool that will act as a lifebuoy</li> </ul>

## EY's approach to liquidity and interest rate risk management for banks and NBFCs during a pandemic

In conclusion, banks and NBFCs will have to prepare for liquidity stress and interest rate changes, maneuver dynamically through current and potentially pro-longed volatility and uncertainty due to COVID-19. The stress testing exercise need be leveraged as a proactive tool for driving strategic action and survival by the senior management and not just mere academic exercise. If these exercises are weak or inaccurate in predicting the impact while the damage has already occurred, it may need a major overhaul.

Nevertheless, outlining and validating high-impact strategic actions is where a well-run and well-prepared institutions can make the difference of helping institution survive the present or even any future crisis and thrive in its aftermath

	Now	Next	Beyond
Liquidity Risk	<ul style="list-style-type: none"> <li>▶ Model cashflows at risk from assets, liabilities and OBS inflows and outflows and assess potential widening of stressed liquidity gaps up to 90 or 180 days</li> <li>▶ Model projected LCR both normal and stressed scenario</li> <li>▶ Assess the liquidity dependency or concern through concentration risk and biggest counterparty default, fortnightly at least up to FY21. Recalibrate the funding strategies for such one dip events</li> </ul>	<ul style="list-style-type: none"> <li>▶ Ensure or target adaptable, and efficient stress testing framework, inclusion of risk drivers in the scenarios and more realistic scenarios</li> <li>▶ Mock test the CFP, evaluate response mechanism within the institution and test the funding channel. Evaluate overall effectiveness and close loopholes if any.</li> <li>▶ On-going realignment of funding strategy</li> <li>▶ Monitor positions to be prepared for NSFR compliance and CCB relaxation withdrawal</li> </ul>	<ul style="list-style-type: none"> <li>▶ Build sophisticated and automated methods to predict the scenarios and impacts more accurately</li> <li>▶ Envisage and plan to adopt advanced models in building accurate and advanced EWIs, behavioural economics-based models, cloud based static and dynamic liquidity reporting and forecasting solutions which would provide real time liquidity positions (day 0 reporting)</li> <li>▶ To avoid a situation like recent Bank/NBFC crisis and extreme severe events causing failure of CFP, set out a road map to develop and implement Recovery and Resolution plan</li> </ul>
Interest Rate Risk			



		which may fall due by Q3-20	▶ NBFCs must plan to be at par with Banks in terms of their LR and IRR management practices
Top priorities for the CXOs	<b>CFO</b>	<b>CRO</b>	<b>CIO/ Head of Treasury</b>
	<ul style="list-style-type: none"> <li>▶ Maintain contingent liquidity sources to manage the moratorium period</li> <li>▶ Closely assess and secure immediate cashflows and liquidity requirement</li> <li>▶ Recalibrate the bank's projected balance sheet factoring in both internal and external stress factors</li> <li>▶ Continuously monitor Liquidity Premiums for fund transfer pricing (FTP) and MCLR to incentivize liabilities and correct asset pricing</li> <li>▶ Leverage FTP to achieve target composition of RSAs &amp; RSLs</li> </ul>	<ul style="list-style-type: none"> <li>▶ Model the cashflow gaps with possible levels of moratorium and delinquencies and closely monitor the limits</li> <li>▶ Implement robust stress testing framework, with inclusion of risk drivers, efficient internal and market EWs</li> <li>▶ Adopt behavioural economics-based models, that project -- cash flows of Non-maturity core deposits, prepayments during low interest rate scenario and redemption of TDs in rising interest rate scenario to assess impact on NII &amp; EVE for static and dynamic balance sheet</li> </ul>	<ul style="list-style-type: none"> <li>▶ Judiciously use RBI's liquidity facilities to avoid any breaches in Statement of Structural Liquidity (SLS)</li> <li>▶ Leverage the IR moment in trading portfolio fixed income securities with right IR strategies</li> <li>▶ Evaluate TLTRO facility offered by RBI judiciously to use it and invest into good quality high credit rated bonds both corporates and NBFC's to create/ manage relationships based on liquidity support from RBI</li> </ul>

**Supported by multidisciplinary team from risk, compliance, process and consulting practices**

EY proprietary tools for responding to LR and IRR challenges due pandemic	Advanced IRRBB models	Quantitative tool for Non-maturity deposit modelling	Independent assessment tool where EY will assist you in defining remediation measures	LR & IRR Stress testing models	Early Warning Signal toolkit
		CPR based Prepayment risk models			
		Deposit redemption models			

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EYIN2005-005

ED None

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