# Managing Financial Risks in Central Banks*

I am thankful to the organisers and the Steering Committee of the CBRMC for this opportunity to share my thoughts on how, we, as central banks, assess and manage financial risks, and what are the challenges. As monetary authority and guardians of financial stability, the central banks are inherently exposed to substantial levels of financial risks. The challenge it poses is how best to measure and provide for such risks. Given the varying mandates and practices across central banks, there is no one size that fits all. Before the global financial crisis, who could have imagined the extent to which central banks could go in risk taking? The financial implications of such central bank activism are still unclear.

2. I understand that there were vibrant discussions at this two-day conference on a range of topics in risk management. These discussions will go a long way in enhancing our collective understanding of risk management in central banks. In the post-crisis era, it is not that only the advanced-economy central banks have to deal with bloated balance sheets; the emerging-market central banks too have their own set of challenges. For example, in an interconnected world, one would have to contend with global financial spillovers into domestic markets and be prepared for increased volatility. Central banks, being focused on monetary and financial stability, cannot but see the need to intervene in the markets; and in the process, take on additional risks. In a way, therefore, a central bank's balance sheet mirrors developments in both – the financial markets and the real economy. While the basic principles of financial risk management are broadly accepted, I think the country practices can be a better guide to the best practice. In this context, I may raise a few questions, which have perhaps been debated at this conference too. I will conclude with our experience in balance sheet management in the Reserve Bank of India (RBI).

3. First, **does a central bank's profit matter**? As we know, the profitability of a firm is considered to be a useful financial indicator of its health. But can we say that the same holds true even for a central bank, especially when there is a long-held notion for central banks that they have "bad profits and good losses"? One should be mindful that the central banks, as public-policy institutions, try to optimise their policy measures and strategic focus to achieve their mandate. In this process the financial gains and losses become incidental

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to that overarching objective. Thus, unlike the other corporate entities, profit maximisation is not the objective of a central bank.

4. It is hard to believe that a central bank will go out of business because it incurs losses. It could always print its way out of trouble, being the issuer of domestic liquidity. We do have living examples of central banks continuing to operate smoothly despite their negative equity on account of past losses. Alternatively, a central bank could always be recapitalised, if needed, by the sovereign. Thus, the question remains as to how material is the central bank profitability.

5. There are, however, several challenges in both the options. While printing money is not a benign option for a country grappling with high inflation, it will be unrealistic to expect the government to recapitalise its central bank if there is no fiscal space. Even if the sovereign were to recapitalise, it could increase the political influence over the central bank, negating the paradigm that central banks perform the best as independent technocratic institutions. Furthermore, the credo of a central bank is its credibility. There is a risk that a persistently loss-making central bank could lose credibility, impairing its ability to discharge its functions.

6. Second, what ought to be the **governing accounting principle** of central bank operations – since the accounting policy adopted by a central bank could substantially alter the financial outcomes? Should it be different from other financial entities that the central bank regulates and supervises?

7. Prudential accounting policy would suggest that the central bank balance sheet should be marked to market. But there could be equally strong arguments for central banks not marking their balance sheets to market as they neither likely to get liquidated nor are expected to liquidate their assets significantly in the short run, nor do they trade with a profit motive. Here, again, country practices vary. As the scale of central bank market operations has expanded and the collateral standards diluted, particularly following the global financial crisis, I think there is merit in marking-to-market for enhanced transparency.

8. Just marking to market, however, may not address the entire problem. For example, many emerging market central banks which have substantial foreign exchange reserves in their portfolio, have experienced significant revaluation gains due to currency depreciation. It would be wrong to presume that the movement would be only one-way. It is also possible that the emerging market currencies may appreciate if one were to believe

in Balassa-Samuelson hypothesis which posits that emerging market currencies may appreciate over the long-term due to productivity differential vis-à-vis the advanced economies. The moot point being whether it is prudent for the central bank to take unrealised currency valuation gains/losses to the profit and loss account and distribute it as dividend. I think the jury is still out.

9. Third, how does a central bank provide for **the contingent risks** arising out of discharge of its Lender of Last Resort (LoLR) function? Many central banks were created to stop bank runs and maintain financial stability. This objective got muted over the years as resilience of the financial sector was taken for granted with steady growth and price stability. However, following the global financial crisis, the LoLR function came back into sharp focus reinforcing the Bagehot principle that 'central bank should lend freely in a crisis against good collateral at a penal rate'.

10. Many central banks discovered that their statutes give them substantial LoLR powers in exigent situations as was evident from the application of Section 13(3) of the Federal Reserve Act. I may add that Section 18 of the Reserve Bank of India Act also bestows substantial LoLR powers to the RBI, extending beyond the banking system. It is, therefore, pertinent that the central banks maintain their financial resilience to preserve their capacity to manage such contingent risks, should they arise.

11. This financial resilience can take several forms: *ex ante* empowering of the central bank in the form of capital buffer, *ex post* recapitalisation, or a formal mechanism which transfers risk to the sovereign when it materialises. Among the various choices, I think e*x ante* empowering may be preferable given that during, say, a financial stability crisis, the government's finances themselves may be under strain, thereby limiting its ability (and willingness) to support the central bank.

12. Interestingly, it is conceivable that in the international capital markets, the 'credit rating' of the central bank is higher than that of its sovereign by virtue of the strength of its equity. Central bank capital may be seen as the financial commitment that a sovereign makes towards monetary and financial stability. In a way, the central bank capital is the money that the sovereign puts away for a 'rainy day'.

13. Fourth, there is another emerging dimension to central bank risk exposure. Can **cyber-threats** entail significant financial risk for a central bank? With the rapidly rising incidents of malware attacks, cyber security is by far one of the largest risks on the

horizon. While cyber-thefts have been around for a while now, what is of grave concern is the brazenness of the acts as seen from the Bangladesh Bank episode.

14. Another trend we hear of is the **state sponsorship of such cyber-attacks** which adds a completely different dimension to the whole issue. Going forward, information-security ‘incidents’ could raise financial stability concerns. A cyber-theft big enough for triggering a run on a bank, or resulting in significant payout from the central bank, or a distributed denial of service (DDOS) attack, which brings down the payment and settlement system, are scenarios which are not entirely implausible. Possibly, it is now time to recognise cyber risk in its own right, which could have contingent financial implications.

15. Let me now turn to how in the RBI we are managing our balance sheet risks. As presented by my colleagues, the RBI has prepared an economic capital framework to assess its risk buffer requirements in a structured and systematic manner. Besides providing for market, credit and operational risks, it factors in an element of contingent risk buffer for possible use in the event of the RBI’s LoLR operations. It is, however, difficult to quantify the LoLR risk based on our past experience as, fortunately, India has not encountered a financial crisis requiring LoLR support on the scale witnessed in some other parts of the world. While risks are created in various silos in central banks, they need to be managed, in an integrated manner. I think the value of a formal ERM-type risk management structure is that it could present a holistic picture of risks, weighing the tradeoffs, enabling the management to take a considered view. Hence, in the RBI we have adopted the ERM approach to risk management, and the economic capital framework is an important component of it.

16. Our paid-up capital is minuscule at ₹ 50 million for a balance sheet size over ₹ 32 trillion as of end-June 2016. We have, however, built up an equity buffer which is around 31 per cent of our balance sheet, the bulk of which is valuation reserve. As per our current accounting practice, unrealised currency valuation gains and losses are not taken to profit and loss account, but accrue directly to the valuation buffer. The economic capital framework is an important input in the management decision on surplus transfer to the government.

17. To sum up, the transparency of central bank balance sheets continues to improve over the years. There is greater appreciation of the myriad financial risks that the central bank faces in the discharge of its core mandate, and need for the capital buffer to enhance its resilience. In India we are trying to do our bit in terms of analysis in our risk management

structure so that better-informed decisions could be taken. I am sure the deliberations at this conference would be helpful by providing a useful perspective to the issues faced by the central banking community in balance sheet management.

Thank you.

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