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# Central Banking in India: Issues and Challenges<sup>2</sup>

#### **Abstract**

There are specialties of the central banks in the developing countries that is important to learn and share, and India has a great importance and potential in the global economy. Indian Central Bank being in existence prior to the country's independence played an important role in the nation building process by way of institution building. Though a monetary authority like any central bank, it is sui generis with multiple mandates as the manager of public debt of the Government of India and the banker to the Government, issuer and manager of currency, bank regulation and supervision. The role of the Reserve Bank of India (RBI) has been redefined through gradual evolution and adaptation, along with some statutory changes, and not through any radical restructuring. While assessing the autonomy of the RBI, one should recognise that RBI is not a pure monetary authority but is responsible for several other functions also, as a central bank. India endeavoured to adopt the best practices in central banking and thus, de facto, there has been enhancement of the autonomy of the RBI. The findings relate to the role of RBI in the nation building process, the smooth, gradual expansion of its mandate and operations, and its contribution to the reform process have a scientific value.3

Keywords: Central Banking, Financial Stability, Bank Supervision, Autonomy, India

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#### Introduction

Central banks occupy a pivotal position in the institutional fabric of an economy. The functions of a modern central bank are vastly different from what was expected from the early central banks founded in Europe in the seventeenth century. In the past few decades, a more focused concept of the role and responsibilities of the central bank seems to have emerged. Objectives have become better identified and used more actively as a means to shape the performance of the central bank. Balls et al. (2016) discussed the new role of the central banks in the advanced economies having acquired more powers after the financial crisis. The central bank in a developing economy performs both traditional and non-traditional functions. It plays an important role in achieving economic growth of a developing country with stability, and creates specialized financial institutions for the purpose. The Reserve Bank of India (RBI), established through the Reserve Bank of India Act, 1934 commenced its operations in 1935. RBI was started as a private shareholders' bank and was nationalized in 1949 under Reserve Bank (Transfer of Public Ownership) Act, 1949. It draws its powers and responsibilities through other legislations also such as the Banking Regulation Act, 1949. The evolution of central banking in the Indian context has its own specificity. The RBI, while discharging its statutory responsibilities, has played a crucial role in the nation building process, particularly in the development of the financial sector. In fact, institution building constitutes a distinguishing feature of central banking in India.

Central Banks in developing economies are faced with underdeveloped financial markets, persisting structural problems, weak macro fundamentals (deficit pressures), inadequate monetary policy transmission, sluggish and excessively lagged, asymmetric across borrowers and monetary policy cycles. We attempt to delve in to the regulations, governance, organizational, operational and independence issues related to central banking in India in particular to the monetary policy and banking supervision. The paper reviews the recent events of interest and may be of interest for central bankers, financial and regulation experts as well as the academic staff and students making research on India.

The second part of the paper gives the basic information on the banking system in India followed by the RBI's mandate and governance arrangement to better understand the supervisory role of RBI. The third part deals with the monetary policy and bank supervision followerd by the independence of RBI and approaches to reforms in the fourth part. The fifth part is devoted to conclusions, lessons and recommendations.

### Banking system in India and RBI's evolving mandate

The banking sector in India is heterogenous and comprises Commercial banks including 21 state owned public sector banks accounting for nearly seventy percent of the market share, 40 domestic private banks including small Local Area Banks, Small Finance Banks, Payments Banks, 45 international (foreign) banks, 56 Regional Rural Banks and large number of small rural and urban cooperative banks in addition to over 1000 Non Banking Finance Companies. The RBI has been entrusted with the work relating to banking regulation and supervision by a separate enactment in 1949, viz. the Banking Regulation Act. The amendment of Banking regulations Act in 1993 resulted in entry of new private sector banks. The overall mandate of RBI regulation is aimed at protecting depositors' interests, orderly development and conduct of banking operations and fostering of the overall health of the banking system and financial stability.

The Preamble to the RBI Act describes the basic objective of the constitution of the RBI as 'to regulate the issue of Bank notes and keeping of reserves with a view to securing monetary stability in India and generally, to operate the currency and credit system of the country to its advantage. Thus, there is no explicit mandate for pricestability or inflation targeting. Over the years, the twin-objectives of monetary policy in India have evolved as: maintaining price stability and ensuring adequate flow of credit to facilitate the growth process. The relative emphasis between the twinobjectives is modulated as per the prevailing circumstances and is articulated in the policy statements. Consideration of macroeconomic and financial stability is also subsumed in the articulation of policy. The RBI manages foreign exchange reserves, which are reflected in its balance sheet. The RBI exercised a tight regime of exchange control particularly under the Foreign Exchange Regulation Act (FERA), 1973; but, a qualitative change was brought about in the legal framework to enable liberalisation by the enactment of the Foreign Exchange Management Act (FEMA) in June 2000 which replaced the FERA. With this, the objectives of foreign exchange regulation have been redefined as the facilitating of external trade and payments as well as the orderly development and functioning of the foreign exchange market in India.

While the RBI is essentially a monetary authority, its founding statute mandates it to be the manager of public debt of the Government of India and the banker to the Government.

It is significant to note that the RBI Act, Section 19 precludes RBI from performing certain business which protects the integrity of the I nstitution, such as trading or taking any direct interest in commercial, industrial or other undertaking, purchasing

shares or giving loans against shares, and advancing money on security of immovable property, drawing or accepting bills payable otherwise than on demand. Because of the last provision, the RBI evolved the Market Stabilisation Scheme through a MoU with the Government, for undertaking stabilisation operations.

### **Governance Arrangements**

The "general superintendence and direction of the affairs and business" of the RBI are "entrusted to the Central Board of Directors". The Central Board nominated by the Government, consists of fourteen eminent persons drawn from different walks of life, who are the non-official Directors. The Secretary dealing with Economic Affairs in the Ministry of Finance is also a Director on the Central Board and has voice but not vote. Further, the Governor and the Deputy Governors are also appointed by the Government, as the Chairman and non-voting Directors of the Board, respectively. The Central Board meets at least six times in a year and at least once a quarter.

The RBI General Regulations, 1949, mandate a Committee of the Central Board (CCB), which is in the nature of an executive board and meets once a week. The CCB quorum demands the presence of at least one non-official Director. Currently, the normal attendance for the weekly meetings is three or four of the five non-official Directors who reside in the headquarters Mumbai. The weekly meetings review the economy and the financial market developments, and approve the weekly accounts of the RBI (which are placed on RBI website every week soon after their approval) and all other matters relating to the general conduct of RBI's business. The Governor, and in his absence the senior-most Deputy Governor available, presides over these meetings.

### Monetary policy and banking supervision

There are three important issues in the conduct of monetary policy viz., the assessment of potential output, the measurement of unemployment and appropriate measure of inflation. Ensuring price stability along with financial stability have become the key drivers of monetary policy formulation in the recent years.

Banking system oversight and regulation had evolved substantially. There has been the potential for conflicts of interest between the functions of the central bank relating to bank supervision. Apart from the reputational risk when a supervised bank fails, the monetary policy faces moral hazard associated with anticipated institution-specific lender of last resort operations by allowing the lender (the central bank) to regulate against additional risk-taking by the supervised bank.

In some countries, the supervision function has been shifted from the central bank to other agencies in favour of a more generalised financial stability objective for the central bank. In these countries, the primary responsibility for bank supervision rests with a separate agency or (less common) a government department (eg. China and Switzerland). In the United Kingdom (UK), a separate authority Financial Services Authority (FSA) took over the supervision after a series of scandals in the 1990s, culminating in the collapse of the Barings Bank. The FSA was responsible for the regulation of the financial services industry in between 2001 and 2013. UK had to reverse its action as the financial watchdog FSA floundered in its supervision task exemplified by the regulatory failure of the banks during the financial crisis of 2007–2008, failure of the Northern Rock Pl etc. The 'failed' FSA has been replaced with two new agencies of the Bank of England.

India did not accede to the clamour of hiving off bank supervision from the central bank to a separate authority like FSA in the wake of the banking and securities scandal known as the securities scam of 1992. RBI's continuous refinement and strengthening of the regulatory and supervisory framework in accordance with the evolving conditions has helped prevent any bank failure or bail out. Banking Supervision continues to be with RBI, but it has been accorded a distinct semi-independent status. A Board for Financial Supervision (BFS), a Committee of the Central Board of RBI, was set up in 1994 and meets at least once a month to guide and oversee the RBI's supervisory functions. The BFS includes four independent members drawn from the Central Board of Directors of RBI with relevant professional background and experience. The BFS has constituted an Audit Sub-Committee under the BFS regulations to assist the Board in improving the quality of statutory audit & internal audit in banks & FIs.

RBI's forward-looking regulations enabled it to tackle the unforeseen risks like the real estate bubble by limiting the banking sector exposure well in time before the subprime crisis took the US economy by surprise. RBI was adjudged as the best central bank in that year.

Banks generally tend to delay provisioning for bad loans until cyclical downturns have already set in and it is too late, possibly magnifying the impact of the economic cycle on banks' income and capital. In such circumstances, providing for and recognising

<sup>4</sup> Harshad Mehta, an Indian stockbroker, exploited several loopholes in the banking system, siphoned off funds from inter-bank transactions in a massive stock manipulation scheme financed by worthless bank receipts known as the \$1 billion banking and securities scam of 1992.

actual and potential loan losses at an earlier stage in the credit cycle could potentially reduce procyclicality and foster financial stability. RBI followed the forward looking provisioning framework. The current 'high' stressed assets in the banking system is on account of the pre-emptive approach of the bank regulation. In the words of RBI Governor, this would prevent regulatory arbitrage and help to ex ante determine the supervisory "guide rails/rules of the game" for the system.

Further, the Board for Regulation and Supervision of Payment and Settlement Systems (BPSS), constituted under special regulations under RBI Act in 2005, provides oversight and direction for policy on payment and settlements in India. Governor is the Chairman while the Deputy Governor in charge of the department is the Vice-Chairman, other Deputy Governors, three Central Board Directors are members of BPSS. Two Executive Directors and three members with domain expertise are permanent invitees. The BPSS now has a statutory basis under the Payment and Settlement Systems Act, 2007 that empowers the RBI to regulate & supervise the payment & settlement systems in the country.

In addition, the Central Board has three sub-committees to assist it including the Inspection and Audit Sub-Committee with four non-official Central Board Directors. Further, there are also four Local Boards of the RBI for four regions of the country, each of which has five non-official Members, appointed by the Central Government, and a Chairman who is one of the Directors of the Central Board. The Local Boards advise the Central Board on the matters remitted to them and perform the duties delegated to them, currently by a resolution of the Central Board.

Accountability of the RBI to the Parliament is essentially through the Ministry of Finance, though the Governor and the Deputy Governors appear, as called upon, before the Parliamentary Committees, especially before the Standing Committee on Finance.

Thus, the formal governance arrangements in the RBI are oriented towards collegial approach to decision making. As in the case of most of the central banks, the Governor holds a somewhat unique position in the organisation. The legal systems as well as tradition do bestow some authority on the Governor that is meant to be commensurate with this unique position. As the Governor is the public face of the RBI in the eyes of the Government and the public at large, the Governor is generally seen to be de facto accountable.

### Independence of the RBI and managing reform

On practical considerations, central bank independence may be broadly related to three areas viz., managerial aspects, including personnel matters; financial aspects; and policy aspects. Managerial independence refers to the procedures for appointment, term of office and dismissal procedures of the top central bank officials and the governing body. It also includes the extent and nature of representation of the Government in the governing body of the central bank and Government's powers to issue directions. Financial independence relates to the freedom of the central bank to decide the extent to which Government expenditure is either directly or indirectly financed via central bank credits. Direct or automatic access of Government to central bank credits would naturally imply that monetary policy is subordinated to fiscal policy. Finally, policy independence is related to the flexibility given to the central bank in the formulation and execution of monetary policy, under a given mandate.

Arnone et al. (2007) study confirmed strong improvements in both economic and political Central Bank Autonomy over the past couple of decades while observing that more progress is needed to boost political autonomy of the central banks in emerging market and developing countries.

In India, while the Central Government may give such directions to the RBI, after consulting the Governor, as it may consider necessary in the public interest, the overall direction of the RBI's affairs and business rests with the Central Board of Directors. All Directors of the Central Board, including the Governor and the Deputy Governors, are appointed by the Central Government and they could be removed and the Board superseded. The staffing pattern is left to the RBI, but rules governing their service conditions and compensation are currently not out of alignment with the public sector, in general, and the banking sector, in particular.

On financial aspects of the RBI vis-à-vis the Government, the phasing out of automatic monetisation of fiscal deficits by 1997 and the enactment of the Fiscal Responsibility and Budget Management (FRBM) legislation in 2003 are two important milestones in the direction of providing safeguards to monetary policy from the consequences of expansionary fiscal policy and ensuring a degree of autonomy of the RBI. Consequently, barring emergencies, there are limits to the ways and means advances by the RBI to the Government and prohibition on RBI from participating in primary issuance of all government securities. The RBI has gradually withdrawn from the practice of providing concessional finance or refinance for specified sectors, though the statutory provisions continue to enable it. The RBI advocates direct fiscal

support to the developmental activities so that the support is transparent, accountable, and quantifiable, rather than through monetary operations of RBI, which would tantamount to quasi-fiscal operations. RBI contributes to the exchequer by way of transfer of balance of its annual profits, after making provisions and transfers to its Reserves. The general principles regarding such transfers have been rationalised as part of the reform process in 1997. The present arrangement is governed by the objective of strengthening the RBI balance sheet by achieving a stipulated level of Reserves in the balance sheet over a period – though the time-frame to achieve the level is extended to accommodate immediate fiscal compulsions.

Harmonious relations between the Government and the RBI have, no doubt, generally contributed to the successful policy outcomes thus far, but it would not be appropriate to conclude that there are no differences in analyses, approaches, judgments and instrumentalities. In the given legal and cultural context, while making every effort to give its views, either informally or formally, but as unambiguously as possible, the RBI generally respects the wishes and final inclination of the Government. The RBI, however, has to accept the responsibility for all its decisions and actions, while being generally conscious of the impact of its articulation and actions on its credibility. The Government, for its part, recognises the dilemmas posed to the RBI, and accords significant weight to the RBI's judgments.

The past decade's government attempt to meddle with the RBI's powers and autonomy has assumed a face-off between the two. There had been pressure to keep interest rates low and monetary policy accommodative, even as asset-price inflation threatened financial stability and structural deficiencies drove up the price line to almost double digits. The seeds of corporate overleveraging and ballooning of bad loans were largely sown during this period for which the RBI, ironically, has now been held responsible post facto. It is also during this period that the government used its legislative powers to amend the RBI Act to nominate an additional bureaucrat to the central bank's board, or to create a super-regulatory body in an attempt to diminish RBI's primus inter pares status among regulators.

The current monetary policy committee statutory framework for inflation targeting is an important development for the autonomy of the central bank and can act a guidepost for the other central banks of the emerging economies which are beset with the uncertainties of government and central bank relationship.

RBI's recent prompt corrective action against 11 public sector banks that circumscribes their ability to expand loan books; refusal to heed government entreaties to open a liquidity window for beleaguered non-banking financial companies; relaxing

Basel-plus capital adequacy norms, among others caught the ire of the Government. Government reference to section 7 of the RBI Act, which gives the government powers to dictate to the central bank, including appropriating the central bank's reserves are the flash points

In sum, de jure, the RBI has not been accorded autonomy on par with recent trends in some of the industrialised as well as emerging economies; but, de facto, the recent experience reflects a progressively higher degree of autonomy being enjoyed by the RBI. During the period of reform, since 1991, there has been a gradual and mutually agreed progress towards greater autonomy in matters relating particularly to the financial markets and the conduct of monetary policy.

### **Approaches to Managing Reform**

As a part of economic reforms introduced in the year 1992 after the balance of payment crisis, the public policy in India has enabled changes in the domestic economy and the public institutions in response to the changes in the global economy. The RBI has, over the years, adopted a cautious approach consistent with its overall framework of objectives for managing the reform process.

First, in order to establish RBI as knowledge institution, considerable attention is being paid to enhancing the knowledge base and skills. RBI officers are encouraged to upgrade their skills on a continuous basis. Select officers are trained, for about one year, in leading universities, including Harvard, Stanford, Oxford, Yale, LSE, etc. E-learning is facilitated through the Financial Stability Institute. There are incentives for acquisition of academic qualifications on a full-time or part-time basis. These are in addition to sending officers to several training programmes, both in India and abroad.

Second, information on global best practices is obtained on a continuous basis. In many of the technical papers or reports of working groups that are placed on the RBI website, a reference to comparative country-practices may be routine. Its senior officers are involved in several multilateral working groups, such as those of the Financial Stability Forum and the Bank for International Settlements, thus acquiring indepth knowledge of global practices and also work on deputation in these multilateral institutions as also some other central banks, thus bringing back a wealth of experience. Similarly, to facilitate a wider exposure, officers are selectively enabled to work in NGOs or other financial institutions. The Senior Management Conference, which is organised

annually, of regional directors and heads of departments also provides an occasion to learn from eminent personalities from diverse field.

Third, continuous efforts are made to benefit from outside expertise. Experts from outside the RBI, be it academics or market participants or representatives of industry associations, are associated usually as members and occasionally as special invitees on the working groups or committees constituted by the RBI. The Standing Committees exist for a wide range of activities namely financial markets, technology, financial regulation, etc. The outside expertise adds value to the quality of decision making and credibility of the policy measures initiated.

Fourth, the procedures for decision-making and internal working are made more collegial and less hierarchical. The inter-departmental groups constituted with regard to various aspects of RBI functions include, for example, Financial Markets Committee, the Regulated Institutions Group, the Monetary Policy Strategy Group, and the Reserve Management Strategy Group. The process helps enhanced quality of work and wide participation/commitment. For the purposes of co-ordination with Central Government, State Governments, other regulators, etc., it has several standing committees/ groups – such as for cash and debt-management, financial conglomerates, and technical groups with the Securities Exchange Board of India and the Insurance Regulatory and Development Authority

Fifth, considerable emphasis has been laid on innovative approaches to managing the reform process. For example, the urban cooperative banks faced severe problems due to dual control of the RBI and the State Governments. RBI's efforts to divest its role altogether did not succeed. Hence, it was decided to have institutional arrangements for ensuring coordination with the State Governments, whenever a state was willing.

Finally, a proactive approach is adopted on several issues. For example, a bi-annual conference of State Finance Secretaries is being convened since 1997, in which the central government nominees also participate. The conference sponsors several studies and working groups for which the RBI provides technical support. Constant feedback from all stakeholders is sought on several issues that happen to be under the consideration of the RBI. Often, even the draft circulars are put in public domain for feedback. RBI's communication policy is now extended to cover several leading national languages – as will be evident from the RBI website.

## **Issues and Challenges**

In the light of changing global and domestic environment, the major challenge for a central bank is to formulate concrete reforms processes to ensure overall financial stability of the system through minimsing the systemic risk through proper and effect risk based supervision.

External developments interact with the domestic economy in complex, uncertain, and even capricious ways. Some of the channels through which cross-border transmission occurs are quite familiar – global prices, including commodity price movements; synchronization of business cycles; capital flows; strong co-movement of asset prices; exchange rates of key international currencies; and interest rate policies of major central banks. Some of the transmission channels are less familiar. For example, the crisis has shown that even differences in regulatory regimes can trigger arbitrage-based action and dilute the efficiency of domestic policies.

The management of capital flows is posing a greater challenge for the central bank especially in the emerging market economies due to sudden surges in inflow & outflows as a result of global deleveraging. A country whose central bank does not intervene in the foreign exchange market will incur the cost of currency appreciation unrelated to fundamentals. If central banks intervene to prevent appreciation, they will have to contend with additional liquidity and potential inflation pressures. If they sterilize (soak up) the resulting liquidity, they run the risk of driving up interest rates, which would hurt growth prospects. Volatility in capital flows could also impair financial stability. How emerging market economies manage the impossible trinity of an open capital account, a fixed exchange rate, and an independent monetary policy will affect their prospects for growth and price and financial stability.

To ensure price stability along with financial stability is a major challenge for the RBI in the emerging scenario. In the years before the crisis there was a powerful intellectual consensus in favor of inflation targeting. Even where central banks did not target a precise inflation rate, their policy objectives were informed, if not dominated, by price stability. This approach seemed successful. There was an extended period of price stability accompanied by stable growth and low unemployment. In the world before the crisis, central bankers were a triumphant lot. The unraveling of the Great Moderation has diluted, if not dissolved, the consensus around solely targeting inflation. The mainstream view before the crisis was that price stability and financial stability reinforce each other. The crisis has proved that wrong: price stability does not necessarily ensure financial stability. The crisis has given fresh impetus to the "new environment hypothesis" that

pure inflation targeting is inadvisable and that the mandate of central banks should extend beyond price stability to include bank regulation and supervision, financial stability, and preventing asset price bubbles. However, RBI has asserted its autonomy by the recent monetary policy committee statutory framework for inflation targeting thus staving itself from the constant political and corporate clamour of reducing its Repo rate so as to stimulate the growth process.

A large number of households had no access to banking and hence bringing the entire population under the banking network has been a challenge since 2005 by its financial inclusion drive.

#### Conclusions, lessons and recommendations

Central banks from emerging economies have a wider range of functions than central banks from industrialised economies. RBI too has multiple mandates and there are often difficult trade-offs made between multiple objectives in relation to specific functions and between objectives for different functions. Those trade-offs complicate the performance of the tasks. The role of RBI has been redefined through gradual evolution and adaptation, along with some statutory changes, and not through any radical restructuring. Further, while assessing the autonomy of the RBI, one should recognise that RBI is not a pure monetary authority but is responsible for several other functions also, as a central bank. The developments in the recent past lead one to the conclusion that, de facto, there has been enhancement of the autonomy of the RBI. As regards monetary policy framework, the objectives remained the same but the framework has been changed from time to time in a gradual fashion in response to the evolving circumstances. In the balance of political expediency versus central bank autonomy, there is a view that implementing inflation-targeting perhaps adds more to political capital rather than comprehensively furthering the cause of central bank autonomy. Even in the binary choices between price stability and growth, both of which form RBI's stated objectives, the central bank is expected to walk that fine line between autonomy and alignment with the government's growth objectives. This includes pursuing greater transparency and implementing robust communication policies. The government, on the other hand, needs to appreciate the central bank's expertise and its deft handling of earlier financial crises while refraining from interfering in the policymaking and rate-setting process. The need for mutual appreciation and understanding and forsaking transient and partisan interests between the government and RBI cannot be overemphasied. The increasing global integration, apart from the benefit of efficient

resource allocation, also poses some risk that has to be tackled with more expertise. Managing the capital flows without disturbing the overall growth process could test the effectiveness of a central bank in the present scenario. The continuous refinement and strengthening of the regulatory and supervisory framework in accordance with the evolving conditions would be imperative. Besides, further strengthening of all category of banks, improved credit delivery, conducive credit culture, customer service and financial inclusion would need to be placed prominently in the overall policy formulation framework.<sup>5</sup>

#### References

- Arnone, M. Laurens, B. Segalotto, J. F. Sommer, M. (2007): Central Bank Autonomy: Lessons from Global Trends. IMF Working Paper WP/07/88.
- Balachandran, G. (1998): *The Reserve Bank of India: 1951–1967*. Delhi: Oxford University Press.
- Balls, E. Howart, J. Stansbury, A. (2016): Central Bank Independence Revisited: After the financial crisis, what should a model central bank look like? Mossavar-Rahmani Center for Business and Government Working Paper Series, No. 67.
- Bank for International Settlements (2007): 77th Annual Report: 1 April 2006.–31 March 2007. Basel, June 24.
- Financial regulation and economic policies for avoiding the next crisis (Urjit R. Patel, Governor, Reserve Bank of India October 15, 2017 at the 32nd Annual G30 International Banking Seminar, Inter-American Development Bank, Washington, D. C. <a href="https://www.rbi.org.in/Scripts/BS">https://www.rbi.org.in/Scripts/BS</a> Speeches View.aspx?Id=1047.
- Rajan, R. (2017): I Do what I Do. Harper Collins India.
- Reddy, Y. V. (2006): Economic reforms and changing role of the Reserve Bank of India. Radhakrishna, R. et al. (eds.): *India in a Globalising World: Some Aspects of Macroeconomy, Agriculture and Poverty.* Essays in Honour of C.H. Hanumantha Rao, Academic Foundation, New Delhi.
- Reddy, Y. V. (2007): "Evolving Role of Reserve Bank of India- Recent Developments", speech on the occasion of the Foundation Day of the Institute of Development Studies, Jaipur on June 30, 2007.

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Reserve Bank of India. Various issues of the Report on Currency and Finance.

Sahoo, A. (2012): Central banking: Issues and challenges. Planning Commission Technical Paper 5, University of Allahabad.

Subbarao, D. (2010): "Redefining Central Bank", Finance and Development [F&D], IMF.