# CMDR Monograph Series No. - 55

# Indian Banking - Challenges of Globalization

# G.A. Tadas

Study Completed Under

## Canara Bank Endowment



## CENTRE FOR MULTI-DISCIPLINARY DEVELOPMENT RESEARCH

Dr. B. R. Ambedkar nagar, Near Yalakkishetter Colony, Dharwad-580 004 (Karnataka, India)
Phone: 0836-2460453, 2460472

Website: www.cmdr.ac.in

1

CMDR Monograph Series No-55
All rights reserved. This publication may be used with proper citation and due acknowledgement to the author(s) and the Centre For Multi-Disciplinary Development Research (CMDR), Dharwad
© Centre For Multi-Disciplinary Development Research (CMDR), Dharwad
First Published : December 2010

# **Indian Banking - Challenges of Globalization**

# Paper presented at CMDR Seminar on Indian Banking Dharwad, Karnataka, June 08, 2010

**G.A. Tadas\***Managing Director & CEO, IDBI Gilts Ltd.

The global melt-down which started in the US in 2008 has severely affected the world economy in the past over two years. In the advanced economies, consumer and business confidence dropped to levels not seen in decades. Most worrisome had been the sudden toll that the crisis began to take on emerging economies, where in many cases deleveraging and asset sales led to capital flow reversals. The immediate impact of the crisis was seen in the UK arising from the concerns that UK banks had substantial exposure to US sub-prime assets. The real estate prices had been rising in the UK and the sub-prime crisis led to a correction in the UK housing prices. This worsened the situation of the UK banks, followed by other major banks in the rest of Europe.

Following the collapse of Lehman Brothers in 2008, many banks in the US and Europe went bankrupt. Some of the big names include Citigroup, Bear Stearns, Merrill Lynch, Goldman Sachs, AIG, Lehman Brothers, Freddie Mac, Fannie Mae, RBS, ING Fortis, Deutsche, Barclays, BNP Paribas, Soc Gen, Swiss Re. These banks lost their credibility causing mutual distrust. The challenge for the governments was to assess to what extent strengthening regulations would restore confidence and revive the entire financial system.

Indian economy since the liberalization of the early 1990s has increasingly become integrated with the global economy and as such it can not avoid the transmission effects of the global crisis. The crisis dampened the growth process in the country especially during 2008 and 2009, although to a lesser degree due to strong domestic market. The GDP growth moderated during the first and second quarters of 2008-09, and sharply in the third quarter. The services sector, which has emerged as the prime growth engine for the past over five years slowed down.

The Indian corporate sector's access to external funding has markedly increased in the past few years. A significant portion of the balance financing of corporates' investment came from external sources. While funds were available domestically,

3

<sup>\*</sup> The views expressed are personal.

foreign funding was perceived to be less expensive than domestic financing. On the other hand, in a global market awash with liquidity and on the promise of India's growth potential, foreign investors and lenders were willing to take risks and finance investment in India. As a consequence of the global liquidity squeeze, Indian corporates found their overseas financing drying up, forcing them to shift their credit demand to the domestic banking sector. This substitution of overseas financing by domestic financing brought both money markets and credit markets under pressure. Although the Indian banks have had no direct exposure to the sub-prime mortgage assets or to the failed institutions and have very limited off-balance sheet activities or securitized assets, the overall credit growth declined and the banks business shrunk.

The Government/ RBI announced fiscal and monetary stimulus package to mitigate the impact of the crisis. These measures have started making an impact; the Indian economy has shown signs of revival and is expected to be back on higher growth of 8.5% during the current year as compared to 6.7% during the crisis years.

In the light of these developments, I present in the following paragraphs the challenges of globalization for the Indian banking system.

#### **Financial Sector Reforms in India**

The financial sector reforms initiated in the early 1990s marked a major break-through in the Indian financial system. The Indian financial system in the pre-reform period essentially catered to the needs of planned development in a mixed economy framework where the government sector had a dominant role in economic activity. It may be observed that with the decline of the Bretton Woods system in the 1970s, there started a general trend towards a financial liberalization in both advanced and emerging markets. While several countries adopted a big bang approach, others pursued a more gradualist approach. The East Asian crisis of the late 1990s showed that fast track liberalization without proper sequencing and attention to institutional strengthening could derail the growth process. India, as you know, has been pursuing a more gradualist approach to liberalization.

The financial sector reforms (following the recommendations of the Narasimham Committee Report and several Reserve Bank of India (RBI) initiatives) have brought about a significant change in the business environment in the financial sector. The financial reforms including deregulation of interest rates, entry of private sector banks, prudential norms incorporating new capital adequacy and income recognition and provisioning requirements, liberalisation of norms for tapping capital market and increasing flexibility afforded to banks for undertaking term-lending have changed the operating environment for banks and financial institutions. The Committee on

Banking Sector Reforms headed by Narasimham again, which presented its Report in April 1998 (called Narasimham II), further reviewed the progress in reforms in the banking sector with a view to chart a programme on financial sector reforms necessary to strengthen India's financial system and make it internationally competitive. As a part of the financial sector reforms, the regulatory norms with respect to capital adequacy, income recognition, asset classification and provisioning have progressively moved towards convergence with international best practices. With a view to enhancing efficiency and productivity through competition, guidelines were laid down for establishment of new banks in the private sector and the foreign banks have been allowed more liberal entry. Since 1993, 12 new private sector banks have been set up. As a major step towards enhancing competition in the banking sector, foreign direct investment in the private sector banks is now allowed up to 74 per cent, subject, of course, to conformity with the guidelines issued from time-to-time. Further, as a part of the reforms programme, capital base of the public sector banks was sought to be expanded with equity participation by private investors up to a limit of 49 per cent. In February 2005, in fact, the RBI released the roadmap for presence of foreign banks in India and guidelines on ownership and governance in private sector banks, which puts in place a framework for ownership and governance of private banks and presence of foreign banks in the country. The broad principles underlying the comprehensive policy framework were to ensure that the ultimate ownership and control of private sector banks is well-diversified to minimise the risk of misuse or imprudent use of leveraged funds. Private sector banks have to ensure minimum capital/net worth for optimal operations and systemic stability. Private sector banks would be required to maintain a net worth of Rs.300 crore at all times. Shareholding or control, directly or indirectly, in any bank in excess of 10 per cent of the paid-up capital of a private sector bank by any single entity or group of related entities would require RBI's prior approval. Banks (including foreign banks having branch presence in India)/financial institutions would not be allowed to acquire any fresh stake in a bank's equity, if by such acquisition, their total holding in the investee bank exceeds 5 per cent of the equity capital of the bank. Large industrial houses would be allowed to acquire, by way of strategic investment, shares not exceeding 10 per cent of the paid-up capital of a bank subject to the RBI's prior approval. The RBI may permit a higher level of shareholding on a case-by-case basis for restructuring of problem/weak banks or in the interest of consolidation in the banking sector. Aggregate foreign investment in private banks from all sources (FDI, FII, NRI) is allowed upto 74 per cent of the paidup capital of a bank. In fact, it may be noted that two of domestic banks in India viz. ICICI Bank and HDFC bank, already have about 74 per cent of holdings in the hands of foreign investors.

The Raghuram Rajan Committee on Financial Sector Reforms (2007) has further proposed the next generation of reforms for the Indian financial sector with the overall

objective of reaching the majority of Indians including small and medium sized enterprises (financial inclusion), achieving scale or sophistication required to meet the needs of large corporate India, allowing entry to private well governed small finance banks, sell-off small underperforming public sector banks, greater autonomy to large public sector banks, allowing more liberal takeovers and mergers, creating more efficient and liquid markets, changes in financial regulatory architecture, creation of Financial Sector Oversight Agency (FSOA) to focus on supervisory, monitoring functioning of large, systemically important financial conglomerates, anticipating potential risks. Considering the far reaching implications of some of these recommendations, this generated considerable debate in the ensuing period. There is since greater emphasis on issues such as greater role for private sector in banking, financial inclusion, creation of financial supervisory body. There are views to convert the High-Level Coordination Committee on Financial and Capital Markets (HLCC) into a Financial Stability Board (FSB). The RBI Annual Policy Statement for the year 2010-11 has indicated its intention to take forward the roadmap for presence of foreign banks through branch or wholly owned subsidiary through a preparation of working paper by September 2010. RBI has also put out a discussion paper containing international practices, Indian experience and ownership and governance guidelines for considering additional banking licences to private sector players in August 2010. WTO Doha Round - Commitments under Financial Services

Under the Doha round of negotiations that began in January 2000, there have been attempts at WTO to develop a framework for services sector, keeping in view their importance for economic and social development, that would promote its future expansion through a successful conclusion of these negotiations. Financial services have been defined in the GATS as including any service of a financial nature offered by a financial service supplier, including all insurance and insurance-related services (e.g., direct insurance, reinsurance, insurance intermediation, and auxiliary insurance services), as well as all banking and other financial services (e.g., deposit taking, lending, financial leasing, asset management, trading in securities, and financial advice).

In the banking sector, we can broadly identify major restrictions in the areas of licensing of banks, foreign equity limitations, forms of entry, minimum capital requirements, limitations on the total value of foreign banks' assets, and other business of banks related to securities and insurance services. These categories cover the most common market access restrictions (e.g., licensing of banks; foreign equity limitations; forms of entry; limitations on the foreign share of total bank assets), as well as the most significant national treatment limitations (e.g. higher minimum capital requirements applicable to foreign banks).

It may be observed that countries have committed to move towards a greater market access in the area of financial services (including banking). There have been many a new and improved commitments. In banking, which is the subject matter of this paper, with respect to cross-border commitments, several countries indicated improvements in sub-sectors such as asset management for sophisticated consumers, advisory services, securities and underwriting. As for commercial presence, several countries have given commitments to reduce or remove restrictions on the level of foreign equity, eliminate depository requirement for foreign branches, and increase the number of foreign bank branches permitted. These increased or improved commitments appear significant, given the importance of financial services in supporting trade in other products and services.

As may be noticed from the emerging trends, India is moving ahead in opening-up of banking sector in line with the country's overall liberalization framework and as part of the WTO commitments.

### **Changing Structure of Indian Banking**

The banking sector is the most dominant sector of the financial system in India, and with good valuations and increasing profits, the sector has been among one of the top performers in the economy. The financial sector liberalisation and entry of many private banks have brought about considerable changes in the structure of banking industry. Although public sector banks (PSBs) dominate the Indian banking system, the increasing competition in the banking has led to falling share of PSBs and increasing share of the new private sector banks. The PSBs now (2008-09) account for 71.8% of the aggregate assets, a decline from 79.5% in 2000-01. In deposits, the share of PSBs declined from 81.4% to 76.6% during the same period. The new private sector banks increased their share significantly - from 6% to 15.2% in assets and from 5.9% to 13.2% in deposits. Interestingly, foreign banks' share in assets increased only marginally by 0.6% to 8.5%, while in deposits the share remained the more or less same at about 5.4%. The share of new private banks in profits has gone up substantially by 6% during the period, while that of PSBs declined by 2.2% and old private sector banks by 3.3%. The old private sector banks' share in assets and deposits also went down during the period. Thus, it may be observed that the new private sector banks have dominated the banking industry in terms of growth in assets, deposits and profit.

Table 1: Indian Banks - Growth in Assets, Deposits & Net Profits (% share) (2000-01 & 2008-09)



Note: Data on assets & deposits are as on March-end of the year.

The Indian banking sector throws open huge potential in the areas of retail banking, rural banking, investment banking, internet banking, and there is scope for greater consolidation in the sector. Retail segment has grown manifold and it is estimated that to grow at a rate of 28-30 per cent during the coming years. It is providing need-of-the-hour services like round-the-clock accessibility through automated teller machines (ATMs), mobile and internet banking. It is also offering services like Demat/Depository services, plastic money (credit and debit cards), and online transfers. Banks have increased their ATM network over the past three years. The concept of Core Banking Solution (CBS), which enables a customer to complete numerous banking operations online, has grown significantly especially in the past 5 years. Electronic fund transfer facilities and mobile banking is expected to further strengthen the retail banking segment in the future. Further, rural India's credit requirement is estimated to be huge, which offers immense potential for the banks and corporates alike.

It is estimated that banking, financial services and insurance (BFSI), together account for 38-40 per cent of India's outsourcing industry. According to a report by McKinsey and NASSCOM, India has the potential to process 30 per cent of the banking transactions in the US. Outsourcing by the BFSI to India is expected to grow at an annual rate of 30-35 per cent.

Also, with numerous mergers and acquisition deals by Indian corporates, investment banking income has gone up to a record high. Investment banking revenue from India is estimated to have crossed the USD 1000 million-mark as against USD 400 million in 2006. This surge in income has propelled India to become one of largest market for investment banking in Asia-Pacific. Some Indian banks like ICICI Bank, Kotak Mahindra Bank are already into this space and some banks such as HDFC also are now planning to expand into this area.

There have been a large number of mergers in international banking and in the process large banks are growing even bigger as a response to the challenges of competition

and aimed at synergising operations and achieving scale economics. All of us would agree that mergers should, in the normal course, be driven by business needs and should lead to the growth of stronger and sound banks both in public and private sector. Mergers amongst strong units can be both a means of strengthening them as also providing for greater opportunities for competition. Consolidation is seen to be the next big thing in the banking sector, which is yet to gain pace in India. It is viewed that there is a need to develop 5-6 big banks in the country through consolidation in the financial sector to be able to face up to global competition. The issue of consolidation has been addressed by the Narasimham Committee Report on Banking Sector Reforms, but the same is yet to be pursued vigorously. There have been some mergers and amalgamations (details of which are given in the tables below), but not of big scale or size as one would have expected in the light of the ongoing reform process. The consolidation process in recent years has primarily been confined to a few mergers in the private sector segment.



Any process of consolidation must come out of a felt need for merger rather than as an imposition from outside. The synergic benefits must be felt by the entities themselves. There are three aspects to consolidation viz. clear-cut legal and regulatory regime governing consolidation, enabling policy framework especially where several banks are owned by Government, and market conditions that facilitate such consolidation, recognising that all mergers and acquisitions may not necessarily be in the interest of either the parties concerned or the system as a whole. In order that Indian banks are to rise to global size and scale of operations, there is a need to give thrust on greater consolidation and internationalization of operations, without of course compromising on quality. Any meaningful consolidation among the public sector banks must be driven by commercial motivation by individual banks, with the government and the regulator playing at best a facilitating role.

### **China's Banking Sector**

In the context of analyzing the challenges facing the Indian financial system, I feel it is pertinenet to look at what is happening in China. Like in India, Chinese banking sector is characterised by the predominance of the state-owned commercial banks. The joint-stock banks and foreign-funded banks have also become more and more active in the banking sector. Before 1995, People's Bank of China, the central bank of China, was the sole regulator of China's financial market. In 1995, for prudential consideration, China decided to adopt a segregated regulatory framework in its financial system, which led to the establishment of two new regulatory authorities, namely China Securities Regulatory Commission, and China Insurance Regulatory Commission, which are responsible for supervising the securities and insurance sectors respectively, while the People's Bank of China remains as the regulator of the banking sector. After this systemic adjustment, China's capacity to regulate the financial market and keep away financial risks and crises seems to have improved. As regards opening up of the sector, way back in 1979, foreign banks were allowed to set up representative offices in China. The representative office of Japan Export and Import Bank was established in Beijing, which was the first representative office of foreign banks in China. In July 1981, foreign banks were allowed to conduct foreign exchange business in Shenzhen and other Special Economic Zones (SEZs). In September 1990, Shanghai became the first coastal city to be opened to foreign banks following five other SEZs, which was further expanded to other seven coastal cities subsequently. In January 1999, the geographic restrictions on the establishment of foreign banks were lifted and foreign banks were allowed to conduct business in all main cities of China. Foreign banks were allowed to conduct the local currency business on a pilot basis. With the deepening of China's reform and opening-up process, foreign banks accelerated their entrance into China's banking market. The regulatory framework of China's banking

sector has been gradually reformed and reinforced consistent with international practices. Further, China has made commitments to open up the economy and the banking sector consequent to its accession to the WTO set-up in 2001. While foreign banks have greater access to Chinese market, Chinese banks are also accelerating their pace to "go abroad". It is observed that liberalization of the banking sector has played a major role in improving the function of China's financial system, which should keep the process going on in China.

Thus, it is clear that China is making all efforts to be a major player in the global banking sector. India, being only next to China in terms of market size in the developing world, has the challenge of coping with competition that is going to emerge in the years to come.

## Where Do We Stand in the Global Banking Arena?

In the international banking arena, size, innovation, efficiency and best standards of customer service alone matter. The top banks in the world belong to such category. There is no substitute for innovation to survive and lead in the new-age banking. The list of Top 500 Global Financial Brands 2009 brought out by The Banker magazine and Brand Finance Plc. reveals that banks such as HSBC, Bank of America, Wells Fargo, Santander, ICBC, American Express, Citi, BNP Paribas, China Construction Bank, and Chase are in the top ten league. SBI from India appears in the top 100 banks. Some of these banks like Citi, Wells Fargo, Bank of America, HSBC, BNP Paribas suffered huge credit losses during the crisis period requiring large capital infusion. Despite the fallout of global downturn, some banks have emerged winners during 2009. The Banker Awards 2009 enlists banks like Banco Santander (Western Europe), UniCredit (Central & Eastern Europe), Standard Chartered Bank (Asia) which emerged as global winners amidst crisis.

Top banks are continuously adapting to changing web technology, applications, business models and competition. Internet banking has emerged as an important strategic mode aimed at reaching new generation customers. Banks such as Citi, HSBC and Standard Chartered are the dominant players in web banking adding next generation new customers. This medium has been extensively used to building deeper relationships with the customers, mobilising deposits, generating payment and trading revenue, and cross-selling products. The Annual Survey of the World's Best Internet Banks 2008, conducted by Global Finance reveals that the top banks in this category are mainly Citi, HSBC and Standard Chartered. In the Asia-Pacific region, the Chinese bank, ICBC, emerges as the best consumer internet bank.

If we look at top 100 banks from the emerging market economies, the recent survey indicates that China is at the top in terms of number of banks in this category at 14, followed by Brazil and Taiwan with 11 banks each. India has 7 banks that come in the list of top 100 banks of emerging markets.

The top banks are always on the move to improve their standards of operations and customer delivery. In the world of finance, what matters to customers is service, quality of investments and trust. The survey by Global Finance has identified the best banks in 118 countries, as well as the best banks globally based on objective criteria such as growth in assets, profitability, geographic reach, strategic relationships, new business development and product innovation. Subjective criteria included the opinions of equity and credit-rating analysts, banking consultants and others in the industry, as well as corporate financial executives. The best banks are those with effective risk-management systems, excellent service and good corporate governance.

One might think that the current global financial crisis may put some brake on the ongoing financial liberalization process as part of GATS. The current crisis no doubt would lead to consolidation in global banking and the strong banks would emerge and dominate the scene. With the proposed improvements in the regulatory framework and risk management systems, there would be greater transparency in the global financial system. This should facilitate the WTO process of financial sector liberalization further, as the rules of the game would become clearer.

#### Global Financial Melt-down & the Future Direction

The crisis has shown the limits of the current regulatory and supervisory frameworks at both the domestic and international levels. The crisis was precipitated by monetary excesses in the form of very low interest rates for a long period in line with the policy pursued by the Federal Reserve and some other central banks. The low interest rates led to a housing boom which eventually ended in a bust and was a significant factor in the crisis. The low interest rates also were a probable factor in excessive risk-taking as people searched for higher yields.

Although open financial markets provide tremendous benefits by lowering the cost of capital, the crisis has demonstrated that more effective regulation is needed to realize this potential. The financial innovation and integration have increased the speed and extent to which shocks are being transmitted across asset classes and economies. However, it is observed that regulation and supervision remain geared at individual financial institutions and do not adequately consider the systemic and international implications of domestic institutions' actions. Moreover, it is felt that macro-prudential tools did not sufficiently take into account business and financial cycles, which led to an excessive build-up of leverage.

The global economy is deeply inter-related, rendering it impossible to isolate a country from the effects of the crisis emanating in major parts of the world. The resultant capital flow reversals, sharp widening of spreads on sovereign and corporate debt and abrupt currency depreciations have invalidated the 'decoupling hypothesis'. Growth prospects of emerging economies were undermined by the cascading financial crisis. Although the governments and central banks across countries responded to the crisis through pro-active and unconventional measures, there has been a contentious debate on whether these measures are adequate or appropriate and on how abandoning the rule book, driven by short-term gains, is compromising medium-term sustainability. The crisis has made clear that new thinking and action are needed in at least three areas related to the global financial architecture:

- the design of financial regulation needs to be improved.
- a better way of assessing systemic risk must be found.
- mechanisms for more effective, coordinated actions are needed to reduce the risk of crises and to address them when they occur.

The challenge, therefore, is to design new rules and institutions that reduce systemic risks, improve financial intermediation, and properly adjust the perimeter of regulation and supervision, without imposing unnecessary burdens. It is also viewed that there should be a system of stress testing of financial models, including resulting credit and market risk exposures so that management and regulators can understand where the breakeven points are on liquidity, solvency and capital adequacy and also understand the key drivers or causes to those break even points. There has been a focused attention on enhanced transparency and disclosure of information to ensure financial stability and effective and smooth functioning of the markets.

### **Concluding**

The mounting competitive pressures, both domestic and external, have necessitated the Indian banks to continuously reassess and reposition themselves in the market arena. Capital is going to play a crucial role in the banking sector, as banks need to grow in size to global standards, need to have robust risk management practices, advanced technology, skilled manpower and sound marketing practices.

In the areas of retail banking also, Indian banks (especially PSBs) will need to upgrade themselves in product offers, customer services, internet banking and IT systems. Banks that are tech-savvy, global-sized, with large capital and smart skilled manpower could survive better in a competitive world. Indian banks need to focus on high profit areas like retail banking, trade finance, institutional banking, corporate and investment banking, which are the domain areas of foreign banks. Also, domestic banks are not

active in FDI and FII areas, major chunk of which is routed through foreign banks. Indian banks would need to improve their brand image so that foreign funds coming into India will be routed through them.

Further, with the opening-up of economy the importance of risk management in banking has become very important. Domestic banks will require human capital investment especially in the areas of risk management and derivatives handling. Some of the biggest names in global financial services and banks like Credit Suisse, Rabo Group and ANZ are seeking a banking licence in India. Some of the existing players such as Citi and HSBC hold India as one of their top markets.

It is also time that Indian banks make major head-way in foreign operations with the medium to long-term objective of transforming into global banks. Some of India's major banks are planning to increase their foreign operations, with an eye on the rapidly expanding NRI and corporate financing business in foreign markets. But, this is an area that calls for greater thrust keeping in view the emerging liberalized GATS framework for financial services. It is in this context that consolidation of Indian banks is desired in the immediate future to create banks of global scales and competence, as also to capitalize on the opportunities thrown open by the global financial sector.

\*\*\*\*

#### References

Aaditya Mattoo, "Services in a Development Round: Three Goals and Three Proposals", World Bank Policy Research Working Paper 3718, September 2005.

Aaditya Mattoo, China's Accession to the WTO: The Services Dimension, World Bank, Washington, D.C. April 2002

CII, CII Trade Talk, Vol 2, No 5, June 2007.

Ernst & Young, Consolidation: Way Forward, 2008

Fleckenstein, William A (2008), Greenspan Bubbles: The Age of Ignorance at the Federal Reserve, McGraw Hill.

Global Finance, World's Best Banks 2008.

IDBI Gilts, Special Reports on Global Crisis, 2009.

John Lipsky, Towards a Post-Crisis World Economy, IMF, November 17, 2008.

KPMG, Frontiers in Finance, September 2008.

Landau, Jean-Pierre, "Complexity and the Financial Crisis", Deputy Governor of the Bank of France, Speech delivered at the Conference organized by Bank of France and the Deutsche Bundesbank on June 08, 2009.

Leeladhar, V., Indian Financial Sector Reforms, Address by Deputy Governor, RBI at the International Banking & Finance Conference 2008 organised by the Indian Merchants' Chamber, Mumbai, April 17, 2008.

Leeladhar, V., Indian Financial Sector Reforms, Address by Deputy Governor, RBI at the Annual Washington Conference of the Institute of International Bankers on March 5, 2007.

Masamichi Kono, Patrick Low, Mukela Luanga, Aaditya Mattoo, Maika Oshikawa, and Ludger Schuknecht, Opening Markets in Financial Services & the Role of GATS, WTO.

McKinsey & Co., Indian Banking: Towards Global Best Practices, November 2007.

Mian, Atif R and Amir Sufi, "House Prices, home equity based borrowing, and the US household leverage crisis", Chicago Booth Research Paper No.09-20, July 5, 2009. Mint (The Wall street Journal), "World's Top 500 Banks", Feb. 02, 2009.

Raghuram Rajan Committee Report on Financial Sector Reforms, Planning Commission, Aug. 2007.

Raksit, Mihir, "Global Economic Crisis: Staglationary Phase", ICRA Bulletin: Money & Finance, March 2009.

RBI, Entry of New Banks in the Private Sector - Discussion Paper, August 2010.

RBI, Monetary and Credit Information Review, Volume I, Issue 6, March 2005.

RBI, Annual Monetary Policy Statement, April 20, 2010

RBI, RBI Bulletin, Various Issues.

Securities Times, "Progress Made in China's Financial Sector Reform" (Beijing: People's Bank of China).

Subbarao, D., Global financial crisis -questing the questions, JRD Tata Memorial Lecture at the meeting of The Associated Chambers of Commerce and Industry of India at New Delhi on July 31, 2009.

Subbarao, D., The Global Financial Turmoil and Challenges for the Indian Economy, Speech by Governor, RBI at the Bankers' Club, Kolkata on December 10, 2008

The Banker, The Banker Awards 2009: Global Winners, December 2009

The Economist, The Future of Finance: Inside the Banks, Jan. 22 2009.