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MID-QUARTER MONETARY POLICY REVIEW: MARCH 2013

Mid-Quarter Monetary Policy Review: March 2013

Monetary and Liquidity Measures

Based on an assessment of the current macroeconomic situation, it has been decided to:

- reduce the policy repo rate under the liquidity adjustment facility (LAF) by 25 basis points from 7.75 per cent to 7.5 per cent with immediate effect;

Consequently, the reverse repo rate under the LAF stands adjusted to 6.5 per cent and the marginal standing facility (MSF) rate and the Bank Rate to 8.5 per cent with immediate effect.

Introduction

2. Since the Reserve Bank's Third Quarter Review (TQR) of January 2013, global financial market conditions have improved, but global economic activity has weakened. On the domestic front too, growth has decelerated significantly, even as inflation remains at a level which is not conducive for sustained economic growth. Although there has been notable softening of non-food manufactured products inflation, food inflation remains high, driving a wedge between wholesale price and consumer price inflation, and is exacerbating the challenge for monetary management in anchoring inflationary expectations.

Global Economy

3. Global economic developments over the last few months present a mixed picture. US GDP estimates for Q4 of 2012 indicate a tentative upturn on the back of improvement in housing and payroll employment. However, US macroeconomic prospects are clouded by the uncertainty surrounding the temporary appropriations and the debt ceiling. In the euro area, plagued by contingent risks of political uncertainty and adjustment fatigue, GDP shrank for the third successive quarter in Q4. Output in Japan too contracted in Q4, and it is as yet unclear how effective the emerging package of stimulus measures will be and how quickly they will turn around the economy. While some emerging and developing economies (EDEs), including China, are gradually returning to faster growth, activity is slowing in others, hobbled by weak external demand and slack domestic investment. International non-fuel commodity prices have softened in Q4, but fuel prices have remained firm, despite the growth slowdown, portending persisting inflationary pressures, particularly for net energy importers.

Domestic Economy

Growth

4. India's GDP growth in Q3 of 2012-13, at 4.5 per cent, was the weakest in the last 15 quarters. What is worrisome is that the services sector growth, hitherto the mainstay of overall growth, has also decelerated to its slowest pace in a decade. While overall industrial production growth turned positive in January, capital goods production and mining activity continued to contract. The composite purchasing managers' index (PMI) declined in February, largely reflecting slower expansion in services. In the agriculture sector, the second advance estimates of *kharif* production indicate a decline in relation to the level last year. However, that may be offset, at least partly, by the *rabi* output for which sowing has been satisfactory.

Inflation

5. The year-on-year headline WPI inflation edged up to 6.8 per cent in February 2013 from 6.6 per cent in January, essentially reflecting the upward revisions effected to administered prices of petroleum products. On the other hand, non-food manufactured products inflation, and its momentum, continued to ebb along the trajectory that began in September 2012, enabled by softening prices of metals, textiles and rubber products. Worryingly, retail inflation continued on the upward path that set in from October 2012, with the

new combined (rural and urban) CPI (Base: 2010=100) inflation at a high of 10.9 per cent in February 2013 on sustained price pressures from food items, especially cereals and proteins. Consequently, the divergence between wholesale and consumer price inflation continued to widen during the year.

Monetary and Liquidity Conditions

6. Money supply (M_3) and bank credit growth have broadly moved in alignment with their revised indicative trajectories. With government cash balances with the Reserve Bank persisting at a higher than normal level, the liquidity deficit, as reflected by the net drawals by banks under the liquidity adjustment facility (LAF), has remained above the indicative comfort zone. The reduction in the cash reserve ratio (CRR) of banks by 25 basis points, effective from February 9 and open market purchases of ₹200 billion since February have enabled money market rates to remain anchored to the policy repo rate. The Reserve Bank will continue to actively manage liquidity through various instruments, including open market operations (OMO), so as to ensure adequate flow of credit to productive sectors of the economy.

Fiscal Situation

7. The Union Budget for 2013-14 has made a firm commitment to fiscal consolidation. According to the revised budget estimates for 2012-13, the gross fiscal deficit (GFD)-GDP ratio, at 5.2 per cent, was contained around its budgeted level, mainly by scaling down plan and capital expenditures. The GFD-GDP ratio is programmed to decline to 4.8 per cent in 2013-14 and further down to 3.0 per cent by 2016-17, in line with the revised road map for fiscal consolidation.

External Sector

8. With merchandise exports recording positive growth for the second successive month in February and non-oil imports contracting, the trade deficit narrowed significantly. For April-February 2012-13, however, the trade deficit was higher than its level a year ago with adverse implications for the current account deficit (CAD), already at a record high. Although capital inflows, mainly in the form of portfolio investment and debt flows, provided adequate financing, the growing vulnerability of the external sector to abrupt shifts in sentiment remains a key concern.

Outlook

9. There are several risks to the global outlook. The impact of sequestration in the US on the global economy is likely to be muted in view of legislation initiated to avert the debt ceiling. Nevertheless, lead indicators point to sluggish global growth. Political economy risks that block or delay credible and determined policy actions in advanced economies (AEs) are inhibiting recovery. For EDEs, risks of spillovers from AEs remain significant. While global inflationary pressures are likely to be subdued, given still large output gaps, several EDEs could potentially face the threat of elevated energy prices.

10. On the domestic front, the key macroeconomic priorities are to raise the growth rate, restrain inflation pressures and mitigate the vulnerability of the external sector. These are briefly addressed in the following paragraphs.

11. The Central Statistics Office (CSO) has projected GDP growth for 2012-13 of 5.0 per cent, lower than the Reserve Bank's baseline projection of 5.5 per cent set out in the TQR, reflecting slower than expected growth in both industry and services. Key to reinvigorating growth is accelerating investment. The government has a critical role to play in this regard by remaining committed to fiscal consolidation, easing the supply bottlenecks and improving governance surrounding project implementation.

12. On the inflation front, some softening of global commodity prices and lower pricing power of corporates domestically is moderating non-food

manufactured products inflation. However, the unrelenting rise in food inflation is keeping headline wholesale price inflation above the threshold level and consumer price inflation in double digits. Also, there is still some suppressed inflation related to administered prices which carries latent inflationary pressures. All this complicates the task of inflation management and underscores the imperative of addressing supply constraints. From an inflation perspective, upward revisions in the minimum support prices (MSP) should warrant caution in view of their implications for overall inflation.

13. On the external sector front, the key challenge is to reduce the CAD, which is well above the sustainable threshold. This adjustment, requiring as it does, measures to improve the competitiveness of exports and wean away demand for unproductive imports, will inevitably take time. Meanwhile, financing of the CAD with stable flows remains a challenge.

14. The foremost challenge for returning the economy to a high growth trajectory is to revive investment. A competitive interest rate is necessary for this, but not sufficient. Sufficiency conditions include bridging the supply constraints, staying the course on fiscal consolidation, both in terms of quantity and quality, and improving governance.

Guidance

15. Notwithstanding moderation in non-food manufactured products inflation, headline inflation is expected to be range-bound around current levels over 2013-14 in view of sectoral demand-supply imbalances, the ongoing corrections in administered prices and their second-round effects. In addition, elevated food prices, including pressures stemming from MSP increases, and the wedge between wholesale and retail inflation have adverse implications for inflation expectations. Risks on account of the CAD remain significant notwithstanding likely improvement in Q4 over an expected sharp deterioration in Q3 of 2012-13. Accordingly, even as the policy stance emphasises addressing the growth risks, the headroom for further monetary easing remains quite limited.

March 19, 2013

INDIA-OECD-WORLD BANK REGIONAL CONFERENCE ON FINANCIAL EDUCATION

Keynote Address
Duvvuri Subbarao

Welcome Address
K. C. Chakrabarty

Vote of Thanks
G. Gopalakrishna

Closing Remarks
Deepali Pant Joshi

*Keynote Address**

Duvvuri Subbarao

RBI Partnership with OECD and World Bank

1. RBI is delighted to have this opportunity to partner with two premier international institutions – the OECD and the World Bank – on this very important conference on financial education.

2. Hearty welcome to all the delegates from around the world and across India.

RBI and Financial Literacy

3. Why is the Reserve Bank – a central bank, whose core concern is maintaining price stability and supporting growth – in the forefront on a quintessentially development issue like financial literacy?

  - Because of 2 reasons
  - First reason
  - RBI has a wider mandate than a typical central bank.
  - Historically RBI has played an important developmental role in the financial sector.
  - The Lead Bank Scheme initiated in 1969 whereby a bank is designated in every district of the country as the lead bank to coordinate the flow of credit from all banks in the district consistent with a district credit plan.
  - Priority Sector Lending - whereby banks are mandated to lend a minimum prescribed portion of their total lending to designated priority sectors.

- RBI has provided innovative leadership on financial inclusion initiatives.
- The Reserve Bank is in the forefront of financial inclusion and financial literacy campaigns because we believe that a banking regulator, particularly in a large developing economy like India, has a unique advantage and opportunity as also a distinct obligation to further these goals.
- GOI and RBI work together.

Financial Literacy and Financial Stability

- Why is RBI in the forefront? (Second reason)
- There is another important reason why central banks, not only in EMDEs, but even in advanced economies, are getting to play a role in financial literacy. This reason stems from the experience of the 2008-09 global financial crisis.
  - Many root causes and many proximate causes for the crisis.
  - One of the root causes is the lack of understanding of financial matters that led sub-prime borrowers into contracting teaser rate loans.
  - It is indeed possible to argue that the sub-prime problem would not have grown to explosive proportions that it did if people had been more financial literate.
  - Bernanke: 'Helping people better understand how to borrow and save wisely and how to build personal wealth is one of the best things we can do to improve the well-being of families and communities.'
  - In post-crisis reform measures across all advanced economies, there is a big thrust on consumer protection.
  - By far the best and most effective way of protecting consumers is to make them financially literate.

* Address by Dr. Duvvuri Subbarao, Governor, Reserve Bank of India at New Delhi on March 4, 2013.

- To summarise, the answer to the question: 'what is the locus standi of a central bank in financial literacy', the answer is that
- Part, indeed an important part, of the mandate of a central bank is to preserve financial stability.
- An essential prerequisite for financial stability is financial literacy.
- A central bank has a unique leverage in providing financial literacy

What Should I Say?

4. Struggled here to determine what I should say at this inaugural that will add value to the conference. Given the depth of frontline experience and subject matter expertise that all of you bring to this forum, it will be presumptuous on my part to lay out the agenda for the deliberations over the next 3 days. I feel distinctly inadequate. I will attempt something much less ambitious.

I will give you

i. The big picture of the challenge of financial inclusion and financial literacy – in general and in India.

ii. Tell you briefly about the Reserve Bank's accomplishments and challenges in the area of financial inclusion and financial literacy.

iii. Raise some introspective and important questions that we must be asking ourselves.

Financial Inclusion and Financial Literacy

5. This conference, I know, is on financial education. Nevertheless, you would have found me speaking about financial inclusion and financial literacy together, almost synonymously. That is not confusion. That is deliberate.

- Financial inclusion and financial literacy are integral to each other.
- They are two elements of an integral strategy.
- Financial inclusion provides access
  Financial literacy provides awareness
- Disadvantaged people need both - access to and awareness of financial services.
- Financial inclusion – supply side
  Financial literacy – demand side

Broader Question: Why are financial inclusion and financial literacy important?

6. Why are financial inclusion and financial literacy important?

They are important simply because financial inclusion is a necessary condition for sustaining equitable growth. There are few, if any, instances of an economy transiting from an agrarian system to a post-industrial modern society without broad-based financial inclusion.

7. As people having comfortable access to financial services, we all know from personal experience that economic opportunity is strongly intertwined with financial access.

8. World Bank – Attack on Poverty

- Seminal WDR on Attacking Poverty – 2000-01. Three dimensions of attack on poverty.
  - Creating opportunities for the poor to improve their lives.
  - Empowering the poor to demand more responsive state and social institutions.
  - Providing the poor security – to cope with risks.
- **Opportunity, empowerment and security**. Financial inclusion is important on all three dimensions.
- Development experience shows that the poor don't want doles. They don't want hand outs. What they want is opportunity.
- Financial inclusion and financial literacy are essential to give that opportunity. They enfranchise the poor in a very powerful way, and give them security against income shocks.

Financial Inclusion in India

9. Let me get a little more specific. Take India. Financial inclusion is good for all the stakeholders.

- Good for the poor. Opportunity to improve their incomes and their quality of life.
- Good for the banks. Steady low cost savings – ALM.
- Good for the government. Powerful tool of poverty reduction, it also cuts down leakage.
- Good for the economy, savings of the poor into the formal financial sector.

10. **Win-win** for the poor, banks, government and economy. Not just a public good but a merit good.

11. India – Big Picture

(i) 600,000 – 100,000 bank branches – just about 10 per cent

(ii) Only 40 per cent of the households have bank accounts

(iii) Financial exclusion is staggering

12. What has the RBI done?

Financial inclusion

- bank-led approach
- deregulated bank branch opening
- 25 per cent of new branches in rural areas
- Leveraged on technology to deepen financial inclusion through the BC model
- Delicenced ATMs
- Liberalised the KYC norms for basic banking account without any minimum balance

13. Financial Literacy

- RBI prepared a National Strategy on Financial Education catering to all sections of the population in the country.
- Simple, comprehensive and inclusive.
- Since the challenge is to link large number of financially excluded people to the formal financial system, the focus of the Strategy at the base level is to create awareness of basic financial products. For the purpose, the financial literacy efforts is primarily directed towards dissemination of simple messages of financial prudence in vernacular language through large campaigns across the country combined with vigorous roll out of financial inclusion plans by banks, insurance, pension funds and others.
- The strategy is inclusive – active, involves individuals, financial sector regulators, educational institutions, NGOs, financial sector entities, multilateral international players and the Government at both Centre and State.

14. Banks and Financial Literacy

- We have advised banks that there should be at least one Financial Literacy Centres (FLC) in all the districts (640+) throughout the country. These FLCs are required to conduct outdoor financial literacy camps at least once in a month. Banks have already set up about 650 FLCs till date.
- Further, every rural branch (35,000+) is required to conduct a financial literacy camp at least once in a month. Through these camps, we envisage imparting of financial literacy in the form of simple messages like why save with banks, why borrow from banks, why borrow as far as possible for income generating activities, why repay in time, why insure yourself, why save for your retirement *etc.*
- Starting from April 2012, we have been able to educate about 1 million plus people through these literacy programs.

15. Our strategy on financial inclusion and financial literacy

- Bank-led model
- More by moral suasion by asking banks to see their enlightened self-interest, than by regulation
- Let a thousand flowers bloom!

16. FIPs prepared and implemented by banks. Why not a more prescriptive model?

i. Innovative ideas

ii. Tailored to their business model

iii. Ownership of the plan

iv. India a diverse country. Let a thousand experiments take place.

17. Many accomplishments -

- Some of it in numbers
- Some of it in heart-warming stories that we have heard from across the length and breadth of the country
- Villages now having access to banking – 200,000-600,000 through branches + BCs
- Hundreds of millions of people, often illiterate, use smart cards with biometric identification, for bank transactions (Secretary Geithner)
- Tens of millions of people use mobile handheld electronic devices for banking
- 10 million SHGs across the country are credit linked to banks for income enhancing activities
- Villages ask for bank branches as they ask for schools and health centres [Neighbouring villages of Jalanga]
- Women voluntarily forming SHGs
- Outreach programmes – more than 50 per cent of participant attendees are women
- EBT – in several states
- Direct cash transfer in 50 districts

18. Challenge for RBI

- Banks see this as an obligation and not an opportunity.
- KYC (migrant labour) and UID – simplifying without compromising security
- Meaningful financial inclusion (Toilet, Bank a/c)

New Bank Licences

19. New bank licences. Strategy for financial inclusion will be an important criticism.

Criticism against RBI: RBI open-minded to innovation.

20. Introspective but Important Question:

- Do we know enough about the poor to deepen financial inclusion and further financial literacy?
- Do we understand enough about how the poor manage their finances in order to design products and services that meet their requirements?
- Are we approaching the problem with an open mind or are we too clouded by our stereotype views to understand why the poor behave in such seemingly irrational ways?
- Are we too patronising in our approach to be dismissive of the concerns and apprehensions of the poor?

Ela Bhatt [SEWA]: WDR 2000-01: We are poor but so many: 'Illiteracy is on the other side of the table'.

Portfolios of the Poor

21. Frame these questions in a more concrete fashion.

i. WB norm for poverty is $2/day.
One of the least understood problems of living on $2/day is that you don't earn $2 every day. That is the average over time. How do you cope with that?

ii. The poor not only have low incomes, but their income is irregular and unpredictable. Their savings are meagre. But, yet they have to cope with loss of employment, illness and death in the family, lumpy expenditure needs for education and for weddings and festivals?

iii. One stereotype view is 'How can the poor save – they have no money'. This is only superficially

sensible. The poor should save because like everybody else they have a present and a future. They have little money today, but unless they stumble on a pile of cash tonight, they have little money tomorrow.

iv. Another stereotype view: The poor's savings are meagre. They don't need much financial management techniques. In fact, because the poor have low, irregular and unpredictable incomes, they need sophisticated financial management. $20/day vs $2/day.

(v) Portfolios of Poor by Daryl Collins, Stuart Rutherford

- India, Bangladesh and South Africa
- Need sophisticated financial management
- Diaries – fascinating how they cope with everyday finances.
- The truth is that money management is, for the poor, a fundamental and well understood part of everyday life.
- The stereotype view is that the poor are carefree or incompetent. Perish that thought. They are anything but.

(vi) Poor Economics – Abhijit Banerjee & Esther Duflo

i. Why are the poor simultaneously saving and borrowing at the same time?

ii. Why in some countries, the poor actually pay money to save money – *i.e.* they actually accept (-)ve interest rate

iii. Ernakulam – Survey. Dependence on money lenders.

iv. Seemingly irrational behaviour tells us a lot about how financial inclusion should be pursued.

22. **Fortune at the bottom of the pyramid** - **Shibboleth or cliché**

- Fortune at the bottom of the pyramid is indeed there.
- Astounding success of millions of SHGs across the country – a heart warming success story
- Nascent capitalist inside every poor man and poor woman. Capitalists without capital as Banerjee and Duflo call them.
- The abundance of entrepreneurism among the poor is the least recognised part of our understanding.
- Purely in terms of stated occupations, most income groups in poor countries seem to be more entrepreneurial than their counterparts in the developed world – the poor no less so than others, an observation that inspired Harvard Business School professor Tarun Khanna's book, Billions of Entrepreneurs.

Financial Literacy and Inclusion – Challenge not unique to developing countries

23. Economist a couple of weeks ago. Feature on 'life on the edges of America's financial mainstream'..

- In December 2012, the Federal Deposit Insurance Corporation (FDIC) released a survey that found roughly one in 12 American households, or some 17m adults, are 'unbanked', meaning they lack a current or savings account.
- The survey also found that one in every five American households is 'underbanked', meaning that they have a bank account but also rely on alternative services – typically, high-cost products such as payday loans, cheque-cashing services, non-bank money orders or pawn shops.

- Not all the unbanked are poor, nor do all poor people lack bank accounts. But the rate of the unbanked among low income households (defined in the FDIC survey as those with an annual income below $15,000) is more than three times the overall rate.

Disturbing Questions about Financial Literacy

24. **[Economist] - Financial literacy**

- Here is a test. Suppose you had $100 in a savings account that paid an interest rate of 2 per cent a year. If you leave the money in the account, how much would you have accumulated after five years: more than $102, exactly $ 102, or less than $102?
- This test is so simple that you suspect there is a catch. There is no catch. But a survey found that only half of Americans aged over 50 gave the correct answer. If so many people are financially challenged, it is hardly surprising that they struggle to deal with financial decisions.

The solution seems obvious: provide more financial education.

But is it possible to teach people to be more financial savvy? A survey by the Federal Reserve Bank of Cleveland reported that: 'Unfortunately, we do not find conclusive evidence that, in general, financial education programmes do lead to greater financial knowledge and ultimately to better financial behaviour.'

So, is financial education programme a failure? Certainly not. The purpose of education is to teach people to deal with financial decisions more intelligently and with greater sense of confidence.

- make it interesting
- make it instructive
- make it relevant to the age and income group

Summary and conclusion

25. Let me summarise the point that I have been trying to make:

i. Problems of access and awareness in deepening financial inclusion and spreading financial literacy.

ii. Problem in poor countries. Problem also in rich countries.

iii. Perish stereotype views.

iv. Easy to attribute it all to sociological and demographic factors. But there is evidence to show that given the same sociological and demographic context, some countries have done better than others. So, strategies, policies and commitment do matter.

v. More importantly imagination and innovation are required.

vi. There is no one size fits all. On the contrary, we must let a thousand flowers bloom, let thousands of real life experiments take place. Learn from that collective experience to determine what works, what does not and why?

26. By the end of the conference, we have an improved and shared understanding on the challenge and opportunity of financial inclusion and financial education.

27. All the best for the success of the deliberations.

*Welcome Address**

K. C. Chakrabarty

Dr. D. Subbarao, Governor, Reserve Bank of India; Mr. Onno Ruhl, Country Director, the World Bank; Ambassador Richard Boucher, Deputy Secretary General, OECD; delegates from the OECD, the World Bank and from countries across the world; colleagues from Reserve Bank of India, other regulatory bodies and agencies involved in disseminating financial education in India; ladies and gentlemen, it is my proud privilege to welcome you all to India's capital city of New Delhi, a city of rich cultural and historical traditions, on the occasion of this Regional Conference on Financial Education jointly organised by RBI, OECD and the World Bank. As you might be aware, this conference is a part of a series of events organised to disseminate information about the activities of the Russia/OECD/World Bank Trust Fund on Financial Literacy and Education. Two other conferences in this series were held recently in Cartagena and Nairobi. We at the Reserve Bank of India, are indeed very proud to co-host this landmark conference, as it brings together all key stakeholders who are central to India's crusade for achieving universal financial literacy. We believe this conference provides an ideal platform, not only for us, but also for delegates from other jurisdictions in particular, the Asia Pacific Region, to exchange views and learn from the experiences of peers. We are also very happy and grateful, to have the World Bank and the OECD as partners for this conference; two organisations which have made immense contribution to spreading financial literacy and leveraging the financial systems to improve the quality of lives of the marginalised groups across the world.

2. Over the next three days, the participants can look forward to stimulating and enriching deliberations involving global experts having rich and varied practical experiences and learn from their experiences of implementation of financial literacy initiatives in different parts of the world. The conference sessions have been structured with focus on all the important pieces which constitute the jigsaw of financial education. For instance, keeping in view the importance of a well-articulated national level framework for financial education, an interactive panel discussion on experiences in developing National Strategy documents for Financial Education, has been planned. Further, in view of the need for assessing existing financial literacy levels in order to identify priority areas while rolling out a National level strategy, the conference includes a session dedicated to use of surveys for evaluating financial literacy levels and ground level feedback from such measurement exercises. The conference also seeks to emphasise on certain focus groups such as the youth and women with separate panel discussions dedicated to these groups. All sessions have been structured to involve sharing of experience by implementation experts from across jurisdictions and would encourage free participation by all delegates, in order to optimise the learning experience.

* Address by Dr. K. C. Chakrabarty, Deputy Governor, Reserve Bank of India at New Delhi on March 4, 2013.

Need for Financial Education/Literacy

3. Having given a brief outline of the Conference let me briefly touch upon the theme of the Conference. Over the past few years, particularly in the aftermath of the global financial crisis, the importance of Financial Education and Financial Literacy has come to be widely acknowledged. This recognition has led countries to initiate programmes to disseminate financial literacy among its citizens. As the OECD's definition of financial literacy indicates, it is 'a combination of financial awareness, knowledge, skills, attitude and behaviours necessary to make sound financial decisions and ultimately achieve individual financial wellbeing'. I would argue that financial literacy is not only important for financial well-being of the masses; it is also a *sine qua non* for the economic well-being of the nation as a whole.

4. Financial Illiteracy is not limited to the poor or to the less developed economies alone, it pervades all levels of society and economic strata. Only the manifestation of financial illiteracy varies depending upon the stage of development of the economy, and within the same country, upon the economic profile of the individual. I am a firm believer that everyone associated with the financial system needs to be financially literate. This includes the users of financial services; the providers of services; and even the policy makers and the regulators. For countries which successfully roll out financial education programmes, the benefits are significant.

For the Individual ...

5. At an individual level, financial literacy/ education is important because it helps in building financial capability. It makes people better informed, educated and more confident, able to take greater control of their financial affairs and to fully harness the benefits of accessing the formal financial system. People who understand their financial circumstances are more likely to make sensible choices and ensure adequate provision for their future. They are more likely to have an appropriate level of insurance and reach retirement age with comfortable pension plans. They won't pay more interest than they need to when borrowing, or settle for less than they should when saving. People with basic financial awareness would understand risk return trade-off and take better investment decisions, thereby being less vulnerable to frauds and dubious schemes. Financial education can help reduce levels of debt, poverty, repossessions, stress, illness and even crime. In sum, financial education improves the quality of people's lives and financial affairs and provides them peace of mind, by instilling in them a sense of confidence and security about matters of money.

For the macro economy ....

6. From a macro perspective also, financial literacy/ education has important implications. Financial literacy, together with financial inclusion and Consumer Protection form a triad which, collectively, has an important bearing on financial stability. The three legs of the triad have strong inter-linkages, with each element having a vital bearing on the

others. The absence of any one would make it difficult to attain the remaining goals. Financial literacy aids financial inclusion initiatives as it creates awareness about the benefits of connecting with the formal financial system and hence, creates demand for financial products. Financial literacy supports consumer protection as it helps consumers better understand the features and risks inherent in financial products, thereby reducing the risk of mis-selling. It also generates awareness and willingness to approach the grievance redressal system available, in case of disputes.

7. At a macroeconomic level, the cost of financial illiteracy is significant and is manifested through scourges such as unemployment, poverty, high personal indebtedness and financial exploitation through mis-selling. It results in avoidable leakages and wastages, which any resource-scarce country can ill-afford. The savings habit, which can be inculcated through financial education, can help channelise household savings into productive activities, thereby supporting economic growth. The increased demand for financial services, created as an outcome of financial education efforts, can help bring depth and diversification to the financial markets.

How are we doing in India ?

8. In India, financial education has been identified as a policy priority and a massive effort involving the Government, various financial sector regulators, financial institutions and civil society is underway. The Financial Stability and Development Council (FSDC), which is chaired by the Union Finance Minister, is mandated, *inter alia* to focus on spread of financial inclusion and financial literacy. Under the aegis of the FSDC, the draft National Strategy for Financial Education (NSFE) for India has been prepared. Further, we are focusing on financial education for school children and are involving various national curriculum setting bodies in order to seamlessly integrate financial literacy material into the existing course curriculum, without making it burdensome for the children. Over the course of this conference, my colleagues from the Reserve Bank and other agencies will be presenting the nuances of India's push towards universal financial literacy. We look forward to your views and suggestions on where we can do it differently, and better.

Conclusion

9. As I mentioned before, Financial Illiteracy is a global problem and the challenge before us is enormous. It calls for a collaborative partnership involving all stakeholders and all countries. While the experiences in individual jurisdictions would vary, there are important learning points that we can pick up from each country's journey. I hope this conference succeeds in valuable sharing of knowledge and experience among such a wide array of experts from across the world. I do believe that with our collective efforts towards universal financial education, individuals and institutions would be empowered to make informed financial choices and

in the process, the global financial marketplace would become a more stable arena, much less vulnerable to financial crisis, such as the one we are facing today. That is the ultimate goal of building financial capability in any society.

I wish the Conference great success and hope that you have extremely enriching deliberations over the course of the Conference. I once again welcome you all and wish you a pleasant and enjoyable stay in New Delhi. Thank you!

*Vote of Thanks**

G. Gopalakrishna

Respected Governor Dr. Subbarao, Ambassador Richard Boucher, Deputy Secretary General, OECD; Mr. Onno Ruhl, the World Bank, Dr. K.C. Chakrabarty and Dr. Urjit Patel, Deputy Governors, Reserve Bank of India, senior officials of Ministry of Finance, Government of India and State Governments, Ms. Flore-Anne Messy, OECD, distinguished delegates from OECD, the World Bank and SAARC countries, Chairmen and Managing Directors of banks, colleagues from the Reserve Bank, ladies and gentlemen.

2. First and foremost, I would like to thank respected Governor Dr. Subbarao, for taking time out to inaugurate this conference. Sir, your keynote address today was enlightening for its content which gave contours of the process of financial inclusion and financial literacy in India. Financial inclusion is a national mission for India. Your presentation today clearly reflected the commitment that you have towards the goals of financial inclusion and financial literacy. In fact, you might perhaps be the only Governor to have undertaken outreaches for financial inclusion and financial education. Your examples of the challenges that still remain towards achieving meaningful financial inclusion were indeed thought provoking. Sir, we are sure, that your profound thoughts, and perspectives, will set off debate and discussion over the next three days and will make this Conference a truly impactful event. Thank you very much.

* Address by Shri G. Gopalakrishna, Executive Director, Reserve Bank of India at New Delhi on March 4, 2013.

3. As the Governor so aptly put it, partnering with OECD and World Bank in hosting this Conference is a valuable learning experience for India. These two institutions have carried out work in the areas of financial education and financial inclusion which serves as a benchmark for other entities to emulate. Ambassador Boucher, your opening address today truly summed up coordinated initiatives that are being taken globally for advancing the cause of financial literacy and education. Thank you very much for partnering with us in the national agenda of financial literacy. I also thank Mr. Onno Ruhl, India Country Director, the World Bank for his opening remarks highlighting the importance of financial education and the credible work done by the World Bank in this area of financial inclusion. We sincerely hope that with the partnership with the OECD and the World Bank, we can make our financial literacy programme sharper so that we can make rapid progress in our pursuit of financial inclusion and financial literacy.

4. I also thank Dr. K. C. Chakrabarty, Deputy Governor, Reserve Bank of India, for steering us through the process of hosting this Conference and also agreeing to deliver the welcome address. Sir, we thank you for your guidance and innovative thoughts. Your address has clearly set out the essentials of effective financial inclusion and financial education and given a succinct account of the efforts taken by the Government, the Reserve Bank, other financial sector regulators and financial institutions towards this cause. I thank all the delegates in this Conference for making time to attend.

5. I thank the distinguished invitees present here for attending the function with warm enthusiasm. I thank all my colleagues from the Reserve Bank for

their participation. I also thank the media for covering this event.

6. It would not have been possible to hold an event of such scale and magnitude without the wholehearted support and commitment of our colleagues in the Reserve Bank of India, New Delhi office, ably led by the Regional Director. I thank them all for their support.

Thank you all, once again.

Closing Remarks*

Deepali Pant Joshi

- RBI Governor Dr. Subbarao set the tone for this conference by providing us the analytical framework.
- He explained how in the wake of the financial crisis our efforts had gathered greater salience.
- He also explained how the equation of financial literacy from the demand side and financial inclusion from the supply side work in tandem. He pointed to the numerous challenges, in the Indian context, liberalised Know Your Customer norms with a unique identity number would help spur financial inclusion. Banks however must treat it as a business opportunity and not an obligation thrust on them.
- Dr. K. C. Chakrabarty brought into very sharp focus how financial literacy, financial education and financial stability are inextricably linked and form part of a continuum.
- Mr. Onno Ruhl, India country director of the World Bank explained the seminal work of the World Bank in addressing issues of building financial capability through financial education and also referred to the work of the RBI in this regard.
- *Ambassador Boucher* expressed how in October 2011, G-20 finance Ministers agreed to new principles on financial consumer protection developed by an OECD led task Force integrated with financial inclusion and financial education policies.

* Address by Dr. Deepali Pant Joshi, Executive Director, Reserve Bank of India at New Delhi on March 5, 2013.

- During the financial crisis, people who did not know any better borrowed beyond their means, not in Africa, not in Nigeria, Papua New Guinea, Japan, India but in the USA because appraisers inflated the value of properties that prospective buyers were interested in.
- Borrowers were led to believe that they had undertaken a standard fixed rate mortgage only to learn later that their mortgage was a complicated variable rate contract which with their income streams they could not honour.
- Brokers, mortgage companies, *etc.*, took the financially illiterate borrower for a ride risky lending practices proliferated.
- There was no consumer protection. Different jurisdictions had their own sets of lending policies.
- A large part the financial crisis was a result of financial illiteracy and lack of financial capability. We are meeting to ensure that this does not happen again this is the first commitment we must make and pledge ourselves to.
- Appropriately our introductory session dwelt on developing National Strategies for Financial education OECD/INFE principles and practical examples from Asia and the Pacific.
- Ms. Flore-Anne of the OECD set the tone. Country experiences were shared by Mr. G. P. Garg, Mr. Pungky Purnomo from Indonesia, Ryoko Okazaki from Japan shared the South, South East Asian and Asian experiences and as Dr. K. C. Chakrabarty explained Helena Kolmanova balanced the picture through the European perspective.
- *It is a truism that whatever gets measured gets done that statistics and empirical experience alone hold certitudes the rest are platitudes.*

So fittingly Dr. Urjit Patel capably steered the session on developing surveys to measure Financial literacy and capability. Surveys as a diagnostic tool can inform policy.

- Valeria Perotti, social protection specialist of the World Bank spoke on Measuring Financial Capability in Low and Middle Income settings and Adele Atkinson competently walked us through International Comparative measures of Financial literacy and evidence from the OECD/INFE Measurement pilot.
- Douglas Randall of the World Bank expounded on the FINDEX in which several of our countries have participated.
- The third fascinating session was on financial literacy and financial inclusion Findings and experience from – Asia and the Pacific region.
- Flore Anne Messy OECD capably moderated the session where Ryoko Okazaki, Director head of Promotion of Financial Education Group Central Bank of Japan Ms. Rufina Peter, Senior research officer Papua New Guinea made her presentation.
- She explained how difficult it was to run the questionnaire in two languages Tok Pisin and Hirin Motu in Papua New Guinea imagine how in India we manage with 22 official languages and 398 living languages the mind boggles but we need to do this. The last engaging presentation of the day was from Temitayo Adebiyi, Principal Statistics officer National Statistics office, Nigeria.
- This morning we have had a series of hands on sessions Richard Hinz and Flore Anne Messy provided us a valuable and insightful introduction to the programme Knowledge products and website of the Financial Literacy and Education Trust fund.
- There is currently limited evidence and little consensus on the types of programmes which are effective in raising the capacity for and level of financial capability.
- Effective impact evaluation is essential but often serves as a forgotten half in this context the presentations made by Richard Hinz, Trust Fund Program Manager, World Bank OECD High level Principles for evaluation of financial education programmes were particularly valuable.
- Adele Atkinson Policy analyst of the OECD presented the OECD High Level Principles for the evaluation of financial education programmes and Joanne Yoong from the National University of Singapore presented a toolkit for evaluation of financial capability programmes in middle and low income countries.
- This was followed by the session on Youth Developing financial skills and Competencies OECD/INFE guidelines on Financial Education in schools and PISA financial literacy.
- Financial education in schools, innovative tools, examples and evaluation findings was presented by Ms Amara Sriphayak,Bank of Thailand, Ms. Luciana, Consultant, World Bank gave us extremely valuable insights.
- The session on Women empowerment through Financial Education, especially close to the heart was moderated by Mr. Prashant Saran, whole time member, SEBI and there was valuable experience sharing through presentations by Ms. Chiara, Consultant, OECD and Ms. Sushma Kapoor of the UNWOMEN.
- The session on innovative methods for financial capability enhancement, in which doorstep banking and financial education in India were

presented by Mr. Leopold Sarr of World Bank was very useful. We all enjoyed Prof. Billy Jack, Associate Professor, Georgetown University presentation on Comic Books.

- We thank Florentina Mulaj of the World Bank for the serial melodrama to improve debt management of South Africa and Martin Kanz of the Economic Development Research Group of the World Bank for sharing the experience on Lotteries and Savings in Nigeria.
- We thank all the speakers for acquainting us with the range of evaluation of new methods and tools to enhance financial awareness and capability evidence suggests that innovative methods can bring positive outcomes on the target audience. The hardcore and asset less poor who are hard to reach due to low literacy levels and Geographical Locations. In sum, through the cross country experience sharing of the conference we have learnt a lot.
- Some of you may also have visited our stalls and picked up some comics to take back.
- We have covered a lot of ground but with distance still to go. Building financial capability through financial literacy is a key component of the financial Inclusion process. On this we are all agreed that every country has to tread its own path to financial inclusion and literacy depending on its particular situation literacy levels, per capita income, levels of financialisation of the economy.
- We have all reached consensus on the need for financial literacy and on National strategies engaging all stakeholders including Central and State Governments, financial regulators civil society public private partnerships, *etc.*,
- We have agreed that financial literacy, financial education lead to customer protection which leads to financial stability.
- You have come to India to the mystic East so I will give you a mantra, Our collective global goal is higher growth leading to inclusive and sustainable development. Our Finance Minister terms this the 'mool mantra' of Growth.
- Economic growth is essential but growth with equity is an imperative.
- Ladies and gentlemen, We must unhesitatingly embrace the need to build financial capability which leads to growth as the highest goal. It is growth that will lead to inclusive development without growth there will be neither development nor inclusiveness.
- The finance minister, presenting the Indian Budget quoted Stiglitz said 'There is a compelling moral case for equity but it is also necessary if there is to be sustained growth. A country's most important resource are its people'. You will all agree it is financially literate, financially educated and financially included people.
- At the end of the day, there will be no dissent that it has been a great conference.We have indeed covered a lot of ground but several challenges remain, with distance still to go.
- Our first Prime minister Jawaharlal Nehru often recalled the words of Robert Frost:

  'The woods are lovely dark and deep
  but I have promises to keep
  and miles to go before I sleep
  and miles to go before I sleep'.
- As Dr. Subbarao explained 'A part, indeed an important part, of the mandate of Central Banks

is financial stability and an essential prerequisite for financial stability is financial literacy and the central bank has unique leverage in providing financial literacy'.

- We all agree on the need to build financial capability of our people. We need to empower people. Now it is the time to get down to do it and together we know we can.

SPEECHES

Is There a New Normal for Inflation?
Duvvuri Subbarao

India's Macroeconomic Challenges:
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Transitioning from Student to Professional Lives:
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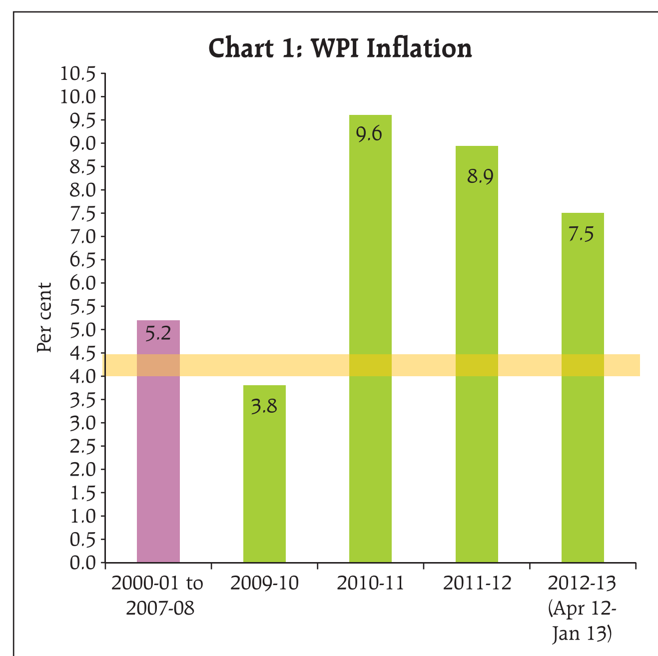
*Is There a New Normal for Inflation?**

Duvvuri Subbarao

India recovered from the global financial crisis ahead of most other countries, but inflation too caught up with us sooner than elsewhere. As measured by the wholesale price index (WPI), inflation went marginally into negative territory for a few months into the crisis in 2009 and started rising sharply thereafter, clocking a peak rate of 10.9 per cent in April 2010[1]. Average WPI inflation was 9.6 per cent in fiscal year 2010-11, 8.9 per cent in 2011-12 and 7.5 per cent during the first ten months of 2012-13 (Chart 1).

New Normal Hypothesis

2. Despite this high episode of inflation playing out over the last three years, the Reserve Bank has consistently maintained in all its policy reviews that its objective is to '… condition and contain perception of inflation in the range of 4.0-4.5 per cent. This is in line with the medium-term objective of 3.0 per cent inflation consistent with India's broader integration into the global economy.'



3. In recent months, some analysts have questioned the Reserve Bank's resolve to bring inflation down to this level given the trend of stubborn and persistent inflation. Their main contention is that average WPI inflation over the last three years for which data are available (February 2010 – January 2013), at 8.8 per cent, is significantly higher than the average inflation of 6.0 per cent in the three years before the Lehman collapse (September 2005 – August 2008) suggesting that India's inflation rate has undergone an upward phase shift owing to a host of domestic and global developments. Monetary policy calibration, it is argued, can get flawed unless the Reserve Bank acknowledges this new normal.

4. The Reserve Bank does not agree with this 'new normal' argument. Indeed it is this intellectual conviction that informed our efforts to rein in inflation over the last three years as we brought inflation from double digit levels to below 7 per cent. The central task of this speech is to present the Reserve Bank's position on the 'new normal' debate.

Arguments in Support of a New Normal

5. In order to make my case, let me first summarise the arguments put forward by various analysts in support of a new normal.

(i) Wage-Price Spiral is a Permanent Shock to the Inflation Path.

6. The first argument for a 'new normal' stems from the steep increase in rural wages over the last few years that has set off a wage-price spiral. Nominal rural wages increased at double digit rates over the last five years. Indeed they increased so rapidly that despite high retail inflation, real wages too surged at close to double digits in the last three years (Table-1).

* Speech delivered by Dr. Duvvuri Subbarao, Governor, Reserve Bank of India at the Bankers' Club, New Delhi on March 8, 2013.

[1] The last time India experienced more than three successive years of inflation above 7.5 per cent was during 1990-96.

Table 1: Increase in Rural Wages

Year	Nominal Wage Increase*	Average CPI (RL) Inflation	Real Wage Increase
	(Per cent)		
2007-08	8.9	7.2	1.5
2008-09	15.9	10.2	5.1
2009-10	18.0	13.8	3.8
2010-11	20.0	10.0	8.9
2011-12	19.9	8.3	10.6
2012-13 (Apr-Dec)	18.1	9.4	8.0

* Daily wage rate for rural unskilled labourer (male)
Source: Labour Bureau, Shimla

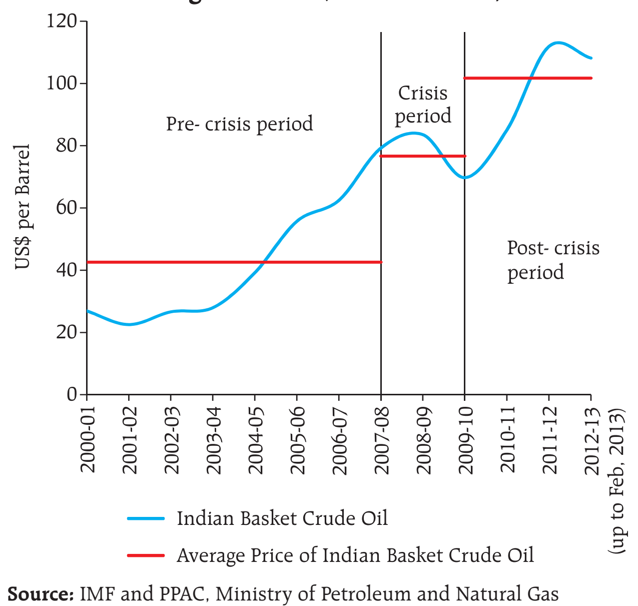
7. By far the most dominant driver of rural wages has been the Government's affirmative action programmes, both by way of transfer payments (subsidies) and welfare programmes, which have significantly raised the demand for wage goods while also restraining supply of labour at low wages. Two other factors exacerbated the wage-price spiral. First, the large public employment programme has not only pushed up wages, but also exerted upward pressure on agricultural input prices and thereby on food prices. Second, even as wages have increased, there has been no corresponding increase in productivity – a recipe for inflation.

8. The 'new normal' argument drawing from this is that it will be politically difficult to reverse these entitlement programmes, they are here to stay, and that India should accept wage-price pressures as a structural feature and adjust its inflation goal accordingly.

(ii) Commodity Price Pressures will Persist

9. Given the tepid recovery of advanced economies from the crisis and consequent sluggish demand, the expectation was that global prices of commodities, especially of crude, would remain soft. On the contrary, commodity prices have surged compared to the pre-crisis period (excluding the highly volatile two years of the crisis) and have remained firm at that level (Chart 2).

Chart 2: Average Price of (Indian Basket) Crude Oil



Source: IMF and PPAC, Ministry of Petroleum and Natural Gas

10. Several forces that will extend into the medium-term, it is argued, will work to keep commodity prices firm. First, oil producers, notwithstanding assurances to the contrary, will calibrate supply to ensure a minimum floor price for crude. Second, 'financialisation of commodities', a catch phrase used to describe a spike in commodity prices quite unrelated to fundamentals, that gathered momentum thanks to the buildup in global liquidity provided by the unprecedented quantitative easing (QE) in advanced economies is here to stay. This creates an asymmetry between financial market conditions and the real economy that will remain a structural feature of the global economy. The third argument in support of higher commodity prices is made on the basis of long-term fundamentals. These will stem from several factors: a larger world population, up from 7 billion in 2012 to over 9 billion in 2050, higher per capita energy consumption as emerging and developing economies 'catch up' on GDP levels, and the recovery of advanced economy growth to normal levels.

11. The new normal argument in this context is that these global price pressures will transmit to Indian prices either because of actual imports or because of

largely import parity pricing, thereby stoking inflation pressures.

(iii) The Positive Supply Shock of the Great Moderation Has Run Out

12. The world enjoyed an extended period of extraordinary price stability during the Great Moderation of the pre-crisis years. As we now know, this was largely the benign influence of the integration of emerging economies, especially China, into the global economy. Through the 80s and 90s, China alone added over a billion people to the global labour pool. This raised global production, but without commensurate increase in demand, and hence prices remained low.

13. The world, it is argued, will not return to the 'Great Moderation' situation post-crisis. As China goes forward on its 'rebalancing' from external demand to domestic demand, the global economy will see shrinking of low cost supplies from China and hence higher prices. The era of cheap imports is over and done forever.

14. The new normal argument in this context runs as follows. Because the positive supply shock from China has all but waned, global inflation will shift to a new normal once the recovery is complete. The Reserve Bank's implicit formula is to calibrate its comfort level of inflation some 2-3 percentage points above the average rate of inflation in advanced economies, while also aiming to converge to the world average inflation in the medium-term. If so, it should recognise the new global normal for inflation and recalibrate its comfort level for domestic inflation accordingly.

(iv) Quantitative Easing will Lead to Higher Inflation in Advanced Economies

15. Advanced economy central banks have battled the global financial crisis with an unusual show of policy force by resorting to unprecedented levels of 'Quantitative Easing'. It is argued that this excess will haunt their economies through higher and persistent inflation once they recover to an equilibrium level.

16. Will advanced economies have an incentive to battle those inflation pressures? Possibly not. Given their extraordinary fiscal pressures and consequent heavy obligation of public debt servicing, they may in fact find it a convenient way to inflate their way out of debt.

17. The Indian dimension of this global outlook is as follows. If higher level of inflation in advanced economies on the way forward is inevitable, India should recognise this, and factor it into its policy calculus consistent with its goal of inflation a few percentage points above the average inflation in AEs.

(v) India should Exploit the Positive Relationship Suggested by the Philips Curve

18. Macroeconomists have long struggled with the dilemma posed by the Philips Curve relationship. The Philips Curve is just an empirically observed positive relationship between inflation and growth (or an inverse relationship between inflation and unemployment). Notwithstanding subsequent economic research, some of it rewarded with Nobel Prizes, which showed that the Philips Curve trade-off has no theoretical basis, there is a school of thought that monetary policy can exploit this inflation-growth trade-off to achieve higher growth (or lower unemployment) by tolerating slightly higher inflation.

19. For those who believe in the Philips Curve trade-off, India presents a persuasive case for bargaining away a bit of inflation to secure higher growth because the multiplier impact of higher growth on poverty reduction will be larger in the case of India. But wouldn't higher inflation hurt the poor? The proponents argue that it will not because higher real incomes will raise purchasing power to more than offset the impact of higher inflation.

20. It should be noted that the new normal inflation argument deriving from the Philips Curve is different from the earlier arguments in one important way. The earlier arguments have an involuntary dimension. India cannot influence these forces; it has to perforce adjust

to them. In contrast, the Philips Curve argument involves a voluntary policy choice of accepting higher inflation to secure higher growth. Should that choice be made, it will require the Reserve Bank to recalibrate its inflation goal at a higher level.

(vi) PPP Convergence on Account of India's Integration into the Global Economy will Imply Accepting a New Normal for Inflation

21. This argument is based on the Balassa-Samuelson effect which says that the absolute price level in a developing economy needs to converge with those of developed economies as it integrates into the global economy on account of 'PPP' (purchasing power parity) catch up. In the process of this catch-up, wages may increase ahead of productivity levels, especially in the non-tradeable sector, leading to inflation.

22. India's integration with the global economy over the last ten years has been much more rapid than we tend to acknowledge, and over the next ten years, it will be much more rapid than we tend to believe. The Economic Survey of 2011-12 had argued that this PPP convergence process for India over the next 30 years would involve an additional inflation of 2 percentage points with no exchange rate adjustment and 1.5 per centage points if the rupee is allowed to appreciate. The counsel to monetary authorities accordingly is to acquiesce in this 'new normal' and support growth to hasten the process of PPP catch up.

Debate About a New Normal not Unique to India

23. Interestingly, the debate about a new normal for inflation is not unique to India; it is playing out in several countries in the post-crisis context in, of course, different ways.

24. As early as in 2000, Bernanke[2] had argued that the Bank of Japan's (BoJ) monetary policy had hit the Keynesian liquidity trap, and that the BoJ should raise its inflation tolerance to 3 to 4 per cent in order to flog the deflationary forces.

25. As the global financial crisis unfolded, Bernanke found himself at the receiving end of similar advice when Blanchard *et al.*[3] and Krugman[4] had, separately and independently, argued that the Federal Reserve should raise its inflation target from 2 per cent to 4 per cent in order to give itself larger head room for conventional monetary easing and thereby avoid, or at any rate delay, recourse to unconventional monetary easing. Quantitative estimates have reinforced this argument by showing that at an inflation target of 4 per cent, the probability of the Fed Funds Rate touching zero is less than 1 per cent. The Fed has, however, resisted this call for a higher inflation target by arguing that this exposes the economy to the risk of higher inflation by unhinging inflation expectations.[5]

26. More recently, a higher inflation target debate played out in Japan in a more high profile fashion. In deference to the electoral commitment of the incoming government to provide a growth stimulus, the Bank of Japan raised its goal of 1 per cent inflation to a target of 2 per cent inflation which it hopes to achieve through unlimited bond purchase.

27. In the UK, a battle of ideas is playing out on how to revive the sagging economy. The Government has firmly embraced a fiscal consolidation plan, but the private sector is yet to take up the slack left by the Government and demand is yet to revive. The burden of stimulating the economy has therefore fallen on the Bank of England (BoE), an inflation targeter, which found itself consistently overshooting its inflation target over several successive months till mid-2012.

28. This policy context has triggered a debate in the UK on whether inflation targeting is an appropriate

2 Ben S Bernanke, 'Japanese Monetary Policy: A Case of Self-induced Paralysis', Institute for International Economics, Special Report 13, September 2000.

3 Olivier Blanchard, Giovanni Dell' Ariccia, and Paolo Mauro, 'Rethinking Macroeconomic Policy', IMF Staff Position Note, February 12, 2010.

4 Paul Krugman, 'Earth to Ben Bernanke: Chairman Bernanke Should Listen to Professor Bernanke', New York Times, August 24, 2012.

5 Esther L George, 'The US Economy and Monetary Policy', Federal Reserve Bank of Kansas City.

policy stance in the face of unyielding recession. One option as suggested by Mark Carney, soon to be BoE Governor, is that central banks could consider targeting nominal GDP instead of inflation. Nominal GDP targeting, by reducing uncertainty about how long monetary policy will stay easy, allows a central bank to persist with an accommodative monetary stance to stimulate growth even if inflation is above its comfort level. This is not costless though. It increases uncertainty about future inflation and can therefore potentially unhinge inflation expectations from their anchor around the targeted inflation.

29. Even as these debates about a new normal for inflation are becoming more commonplace around the world, the context similarity between India and advanced economies should not be stretched. The concern in advanced economies is about how to continue with the stance of monetary easing even after the policy interest rates have hit the zero lower bound so as to minimise loss of employment and output. The concern in emerging economies in general, and India in particular, on the contrary, is an aspiration for higher growth aimed at poverty reduction, even if it entails higher, *albeit* not much higher, inflation. It is important to acknowledge this vital difference in evaluating the arguments for and against a higher 'normal for inflation'.

Why is it Important to Recognise if There is a New Normal for Inflation?

30. It is important because not recognising an upward long-term structural shift in 'normal inflation' can lead to a flawed monetary policy stance with potentially heavy macroeconomic costs.

31. This can be understood in the paradigm of type-I and type-II errors in statistical analysis. If indeed there is a new normal and it is not recognised, this could lead to an overtightening of monetary policy, a type-II error. But there could be a type-I error too if the new normal is wrongly recognised and monetary conditions are kept accommodative for too long, thereby fuelling higher inflation. Theory also tells us that efforts to minimise one type of error result in maximising the other type of error. So, where should the balance lie? Even if there is arguably a new normal for inflation, wouldn't it be more prudent to err on the side of caution? And what will be the price to be paid for that prudence on the inflation front in terms of lost growth?

32. Central banks face a complex policy choice in managing the growth-inflation balance. Experience shows that policy mistakes cannot easily be reversed in short order, and typically not before heavy costs have been paid by way of welfare loss. At the same time, the probability of policy mistakes is high because it is difficult to get an accurate estimate of the potential growth rate of the economy in real time.

33. Economic history of the last 50 years, especially of the US, contains several instances where central banks are alleged to have made costly errors. The best known example is the Volcker disinflation policy of the early 1980s. Paul Volcker, the Fed Chairman of the time, is largely credited with restoring price stability in the US, but subsequently there have been questions about whether too high a price was paid for it by way of two recessions and a surge in unemployment. Was there, in fact, a new higher normal for US inflation that Volcker did not recognise? If indeed there was, how does it square with the low inflation experience of the US over the last two decades? This is a debate that is yet to be settled.

34. The importance of having an accurate estimate of the 'normal values' of the fundamental economic variables of an economy – potential growth rate, natural rate of unemployment and threshold inflation – in order to accurately calibrate policy got reinforced recently in the context of the US Fed's announcement in December 2012 that it will maintain its current easy monetary policy stance 'as long as the unemployment rate remained above 6.5 per cent' provided inflation is only slightly above its target and long-term inflation expectations remain anchored. This has raised a question about whether the Fed has accepted 6.5 per

cent as the new normal for unemployment. It has raised an even more important question about whether 6.5 per cent unemployment is, in fact, an underestimate in which case the Fed would run the risk of maintaining its easy stance for far too long, thereby stoking inflation.

New Normal – Counter Arguments

35. Let me now put across the Reserve Bank's assessment and position on each of the arguments for new normal as summarised earlier.

(i) Wage-Price Spiral cannot Sustain Indefinitely

36. The thrust of our response to the wage-price spiral argument is that even if inclusive growth policies, liberal fiscal entitlements and heightened inflation expectations – driven primarily by food inflation – trigger a wage-price spiral, it cannot be sustained in the absence of an accommodative monetary policy. Admittedly, wage pressures, unaccompanied by productivity increases, start off as demand shocks, but soon transform to act more like supply shocks.

37. Like any other supply shock, exogenously imposed higher wages can be inflationary in the first round, but the bargaining power of labour will erode in time, and the necessary adjustment will take place to bring wages back in line with productivity levels. The recent high growth in rural wages also reflects a catch up with minimum wages, a necessary adjustment intended by the Government. After the initial catch-up, however, wage growth cannot be sustained without corresponding productivity increases. If not, firms will gradually lose their power to translate higher input prices to higher output prices, inevitably leading to a correction in the wage pressures.

38. Furthermore, we must recognise that the Government does not have the fiscal capacity to continue entitlements and welfare programmes at this level. The Government's embrace fiscal responsibility will act as a self-limiting check on the wage-price spiral.

(ii) Commodity Price Shocks are Unlikely to Persist

39. Even as the arguments in support of continued upward pressure on global commodity prices are compelling, there are some credible arguments to the contrary, drawing mainly from an alternate energy scenario going forward. The global energy scenario will change on three dimensions – efficiency, demand and supply.

40. On the efficiency front, regulatory and competitive pressures will ensure that gains from energy efficiency will continue to roll in, possibly at an accelerated pace. From the demand perspective, the impact of these efficiency gains on emerging economies will be larger, in the sense that the energy intensity of their GDP growth will be lower than that of advanced economies when the latter were at similar levels of GDP. China is, in fact, projected to move onto a less energy-intensive development path by 2020.

41. From the supply perspective, the shale revolution, first for gas and then for oil, is expected to contribute almost a fifth of the increase in global energy supply by 2030. A roughly similar positive contribution is likely from renewable sources of energy – expected to treble by 2030. Growing domestic production and near flat consumption may see the US become self-sufficient in energy by 2030. Supply from Iraq is projected to increase steadily, and by 2030 it is likely to become the second largest global oil exporter, overtaking Russia.

42. Add to all this, the lessons of experience. For over a century now, commodity prices have been prone to mean reversion. There is no reason why this time it should be very different.

43. Admittedly, gains on the energy front will translate to gains on the inflation front only if other policies are managed intelligently. In particular, demand for land from industrialisation and urbanisation should not be allowed to crowd out bio-fuel production. Simultaneously, agricultural productivity needs to increase so as to meet the food requirements of a growing population even if some land is ceded for bio-fuel cultivation.

44. The thrust of the Reserve Bank's argument is that the current and projected trends for the global energy

scenario do not provide a persuasive case for raising India's 'normal inflation'.

(iii) Global Rebalancing will Ensure Benign Inflation

45. The new normal argument that I cited earlier is that China's ability to exert downward pressure on global prices will wane. It certainly will, but only gradually. Given the size of China's economy, it will continue to be the world's cheap manufacturer for at least the next decade, thereby keeping global inflation under check. Even as China moves up the value chain, the space vacated by it will be occupied by other emerging and developing economies. All this suggests that multiple poles of global growth and competitive pressures will ensure that global inflation remains benign for at least the next decade. The argument that India must recalibrate its inflation higher because global inflation is going to be higher loses its potency if, in fact, higher global inflation is not a credible threat.

(iv) QE – No Risk to Global Inflation in the Medium Term

46. Let me now address the argument about advanced economies suffering higher inflation down the road because of QE. There is a view that this threat is being exaggerated. Advanced economy central banks, especially the US Fed, have repeatedly asserted that they have in place well thought through plans to unwind QE in a non-inflationary way. Also note that long term inflation expectations in advanced economies do not suggest any risk to price stability.

47. Most importantly, nothing hurts the election prospects of a democratic government more than rising prices. Political economy compulsions will therefore ensure that governments do not resort to inflating their way out of debt.

(v) The Philips Curve Relationship does not Provide a Realistic Policy Option

48. Experience since the 1990s demonstrates that the secular growth-inflation trade-off suggested by the Philips curve does not hold at all levels of inflation. The relationship is indeed non-linear and reversible. There is a threshold level of inflation, below which it might be possible to exploit the growth-inflation trade-off. However, if inflation is above the threshold, it is decidedly inimical to growth as higher inflation does not raise, but actually lowers the growth rate.

49. Mohanty *et al.* (2011)[6] have estimated that the threshold inflation for India is in the range of 4.0 per cent to 5.5 per cent. Updated estimates, using the same methodology, yield a range of 4.4 per cent to 5.7 per cent, implying a mid-point rate of about 5.0 per cent. Even though an estimated threshold inflation rate need not be the optimal inflation target for a central bank, it nevertheless provides a reference point for calibrating the 'normal inflation'. The surmise is that empirical research does not support the case for a new normal.

(vi) New Normal on Account of PPP Convergence is not Inevitable

50. Apart from all the empirical arguments, there is also an important conceptual argument against the 'new normal' hypothesis. As India's integration with the world picks up pace over the next decade, it is important also that our inflation rate is in line with global inflation. A new normal based entirely on domestic considerations will result in a permanent wedge between domestic and global inflation which means a persistent real appreciation of currency. Real appreciation is unambiguously contractionary and militates against our growth aspiration. To support sustainable growth during a period when the economy is globalising, our inflation rate needs to converge with the global inflation rate. This is the rationale behind the Reserve Bank's policy of calibrating its medium term inflation goal to global inflation.

51. This is an appropriate context for me to respond to the argument for a new normal based on the PPP

[6] *Deepak Mohanty, A B Chakraborty, Abhiman Das and Joice John,* 'Inflation Threshold in India: An Empirical Investigation' W P S (DEPR) : 18 / 2011.

convergence argument. Our view on this is that PPP convergence cannot be a policy goal, and accepting higher inflation to aid PPP catch up will be both futile and indefensible. As India's per capita income rises, PPP convergence will happen automatically. We need to make sure that rise in incomes is accompanied by productivity gains so that the process of PPP catch up is non-inflationary.

52. There is also no *a priori* reason to believe that the entire burden of adjustment on account of integration with the global economy will have to come by way of the price differential closing. Part, if not all, of the burden can be borne by exchange rate adjustment too as evidenced by the experience of Japan starting the 1960, when the yen appreciated by over 300 per cent to close the price gap. How the burden of adjustment is shared between price levels and exchange rates will depend on country circumstances – in particular the economy's structural constraints and market rigidities.

53. To support sustainable growth during a period when the economy is globalising, our inflation rate needs to converge with the global inflation rate. We need to manage this convergence by calibrating the 'inflation differential' over time rather than acquiescing in a new normal for inflation.

Conclusion

54. Admittedly, the average inflation rate in India over the last three years has trended up. Nevertheless, the context presents neither a necessary nor a sufficient condition for the Reserve Bank to revise its inflation goal. Not a necessary condition because, as indicated earlier, much of our inflation is driven by supply constraints which can be corrected by appropriate policies and their effective implementation. Accepting a new normal for inflation not only has no theoretical or empirical support, but entails the moral hazard of policy inaction in dealing with supply constraints. Not a sufficient condition because there is no empirical evidence to establish that the benefits of higher growth outweigh the costs of welfare loss associated with higher inflation.

55. Key to our collective national aspiration for sustained high economic growth is low and steady inflation. It is only under such an environment of price stability that investors and consumers can make informed choices and contribute to growth. The responsibility of the Reserve Bank in this regard is to anchor inflation expectations and ensure price stability. Neither theory nor empirical evidence presents a credible case for acquiescing in a new normal for inflation in India.

*India's Macroeconomic Challenges: Some Reserve Bank Perspectives**

Duvvuri Subbarao

First of all many thanks to the London School of Economics (LSE) for inviting me to deliver the fifth I.G. Patel Memorial Lecture. It is an honour to which I attach immense value.

Dr. I. G. Patel

2. Dr. I. G. Patel represents a special bond between our two institutions – the Reserve Bank which I represent and the LSE where this lecture is instituted. Dr. Patel led both these institutions with great dignity and distinction, and is loved and respected by both our institutions.

3. Because the occasion demands it, I must repeat what I said at the Reserve Bank's Platinum Jubilee celebrations in 2010.

4. Those of you who have an interest in the history of science would know that Sir Isaac Newton was known, among other things, also for his intellectual arrogance. When his friend and rival, Robert Hooke wrote to him, lauding his theory of gravity, Newton, for all his arrogance, wrote back with uncharacteristic humility:

'If I have been able to see a little farther than others, it is because I am standing on the shoulders of giants.'

5. That is a statement I can relate to. As the Governor of the Reserve Bank in these exciting times, I owe an intellectual debt of gratitude to the extraordinary men who led the Reserve Bank through several challenges, and made a mark in the economic history of India. Among the most distinguished of them is Dr. I. G. Patel. I am privileged to be in the same lineage as him.

6. During his long and illustrious career in India, Dr. Patel made very significant and lasting contribution to economic governance of India. He was Governor of the Reserve Bank at a critical time when the Indian economy had to battle a balance of payments crisis triggered by the second oil price shock in the late 1970s. He played an active role in securing accommodation for India from the IMF's Extended Fund facility, an arrangement that was the largest in the Fund's history at that time.

7. Indeed, Dr. Patel was the intellectual force behind resolving some of our biggest macroeconomic challenges of his time. As the Governor of the Reserve Bank today, I am involved in addressing some of India's current macroeconomic challenges. The leadership that my predecessors provided in confronting these challenges always remains a source of motivation and inspiration for me in navigating through these challenges. I thought the best way I can honour the memory of late Dr. I. G. Patel is to talk about India's current macroeconomic challenges from the Reserve Bank's perspective.

India – Current Macroeconomic Context

8. India clocked an average growth of 9.5 per cent in the three year period before the global financial crisis (2005-08). For a nation that once believed that the 'Hindu Rate of Growth' was its destiny, this remarkable growth performance was cause for celebration. It was also a trigger for setting off an aspiration for double digit growth.

9. Today, there is a sharp reversal. Growth has decelerated, inflation is still high and stubborn, the investment rate has declined sharply and the external sector is beset with a record high current account deficit. This downturn has caused widespread anxiety that we may have got derailed from the high growth trajectory. It has also raised a number of questions. Is

* Fifth I. G. Patel Memorial Lecture delivered by Dr. Duvvuri Subbarao, Governor, Reserve Bank of India at the London School of Economics on March 13, 2013.

our growth story faltering? Has India's potential growth rate declined? Are the growth drivers that worked our way during 2003-08 still intact? Has the world lost confidence in India's growth promise? When will we reach double digit growth, and what indeed should we be doing to get there?

10. My short answer to all these questions is that the India growth story is still credible and that the long term growth drivers are still intact. If we do the right things, we can get back on a high growth trajectory. Equally, there is nothing inevitable about the India growth story. We can accelerate growth and improve welfare only if we effectively implement wide ranging economic and governance reforms. Slipping up on this will amount to a costly and potentially irreversible squandering away of opportunities.

11. The Government has to be at the center of this and lead the process of economic revival. As the central bank and as the regulator of large segments of the financial sector, the Reserve Bank too has an important role to play in this. What I propose to do today is to discuss some important macroeconomic challenges from the Reserve Bank's perspective.

12. In particular, I will discuss three challenges:

i. Managing growth-inflation dynamics

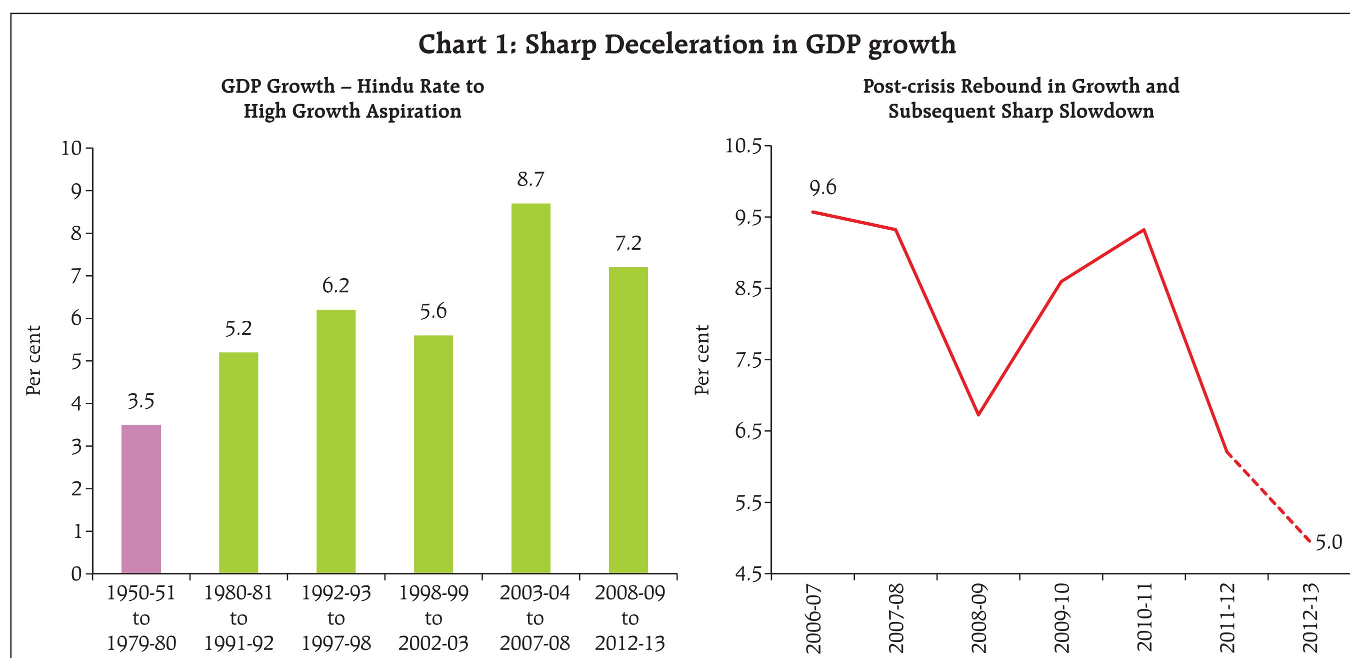
ii. Mitigating the vulnerability of external sector

iii. Managing the political economy of fiscal consolidation

First Challenge: Managing Growth-Inflation Dynamics

Growth

13. The global financial crisis affected virtually every economy in the world, and India was no exception. But we recovered from the crisis much sooner than even other emerging economies. In the crisis year of 2008-09, growth dropped to 6.7 per cent, but it recovered smartly thereafter. In fact, in the two years after the crisis, 2008-09 and 2009-10, growth averaged 9.0 per cent which compares favourably with the average growth of 9.5 per cent in the three years before the crisis. However, last year, 2011-12, growth moderated to 6.2 per cent, and the first advance estimates suggest that growth this year may drop further to 5.0 per cent, the lowest in a decade (Chart 1).



14. To understand the latest downtrend, it is important first to understand the pre-crisis growth surge. Several explanations are offered for India's growth acceleration in the pre-crisis period: the impact of economic reforms of the 1990s; India's rapid integration with the global economy; rise of entrepreneurism; and increase in productivity.

15. Underlying all these factors was the massive increase in capacity as investment jumped from 26.9 per cent of GDP in 2003-04 to 38.1 per cent in 2007-08 (Chart 2). This increase in investment was financed by growing domestic saving, and was accompanied by an increase in productivity driven by improvements in technology, organisation, financial intermediation and external and domestic competitiveness. The current account deficit (CAD) during this period averaged just 0.3 per cent of GDP suggesting that the contribution of foreign savings to domestic investment was relatively modest. But to the extent foreign saving came by way of foreign direct investment (FDI), it raised the productivity of overall investment and resulted in higher exports.

16. In the immediate post-crisis period, even as investment slowed, private consumption demand, which accounts for about 57 per cent of GDP, held up as rural incomes grew robustly on the back of the crisis driven stimulus as well as the expanded safety-net programmes of the government. This kept growth up but also fuelled inflation reflecting excess of demand over supply.

17. So, what explains the downturn in growth over the last two years? The answer would be a slowing of demand across the board. Private investment decelerated sharply, in part reflecting the global downturn, but largely owing to domestic factors. Business profitability was dented by tightening infrastructure constraints and increasing input prices stemming from high food and fuel inflation. Business confidence was hit by a rising fiscal deficit, vacillating commitment to reforms and governance concerns, all of which dampened investor perceptions on returns to investment.

18. On top of the decline in private investment, private consumption demand, which was the bulwark

Chart 2: Domestic Saving and Investment (% of GDP)

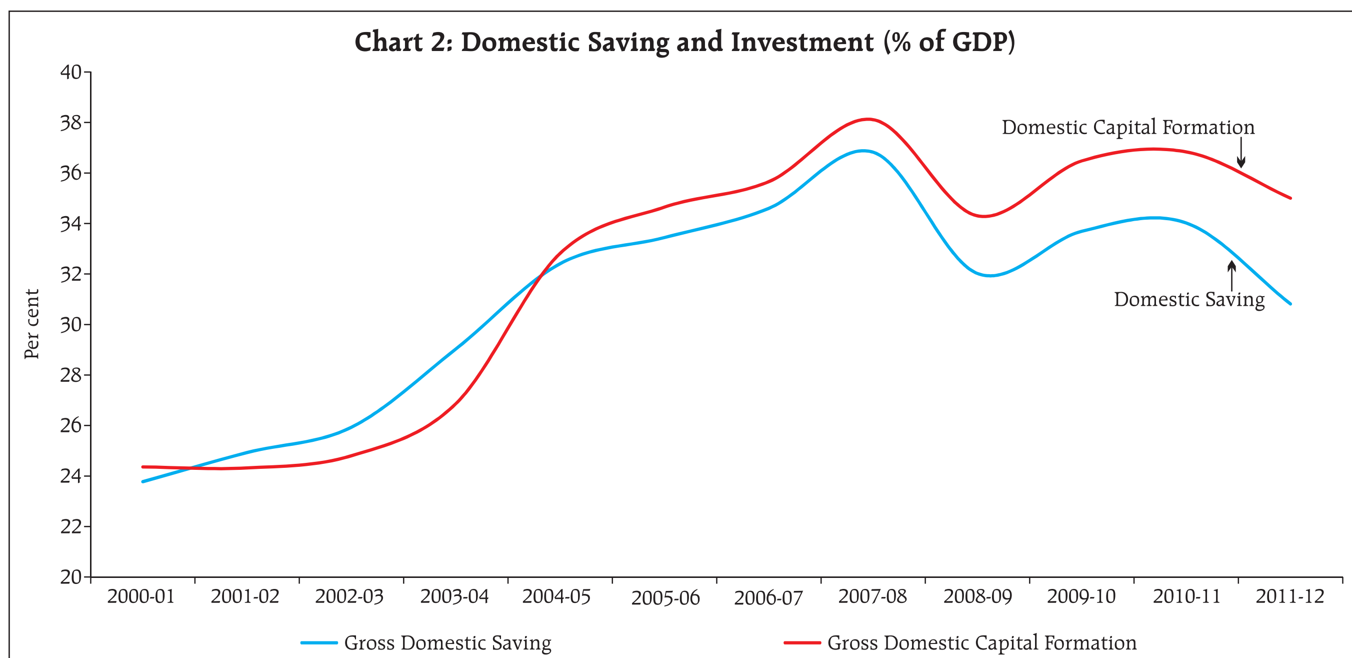


Chart 3: Annual Growth in Private Consumption and Investment

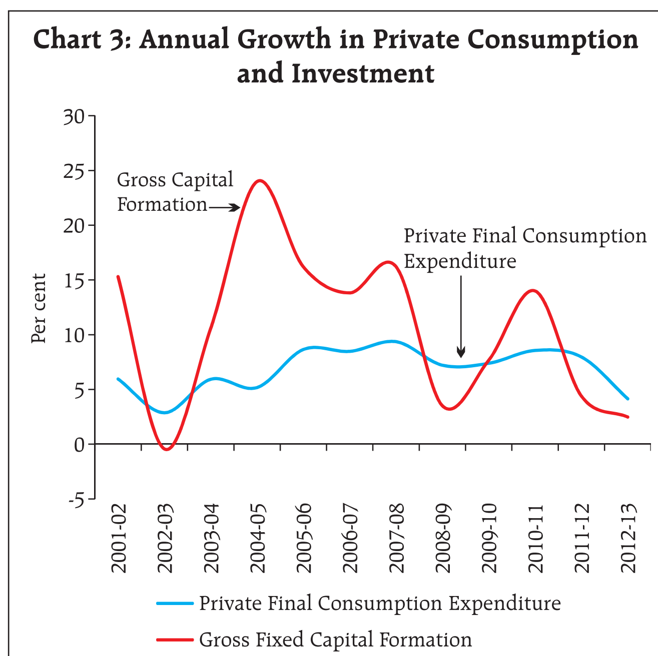
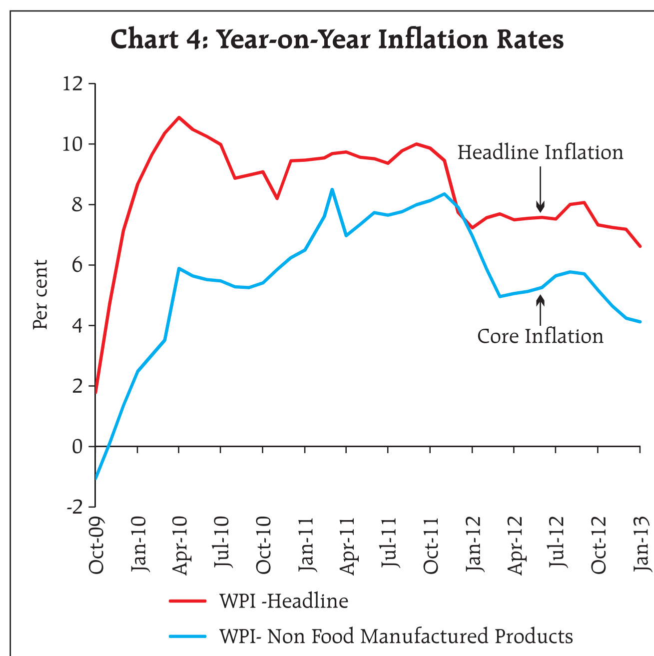


Chart 4: Year-on-Year Inflation Rates



of the quick recovery from the crisis, too started slowing in recent years exacerbating the growth slowdown (Chart 3). It is estimated to have slowed to 4.1 per cent during the current year, down from an average of 8.3 per cent in the previous two years.

Inflation

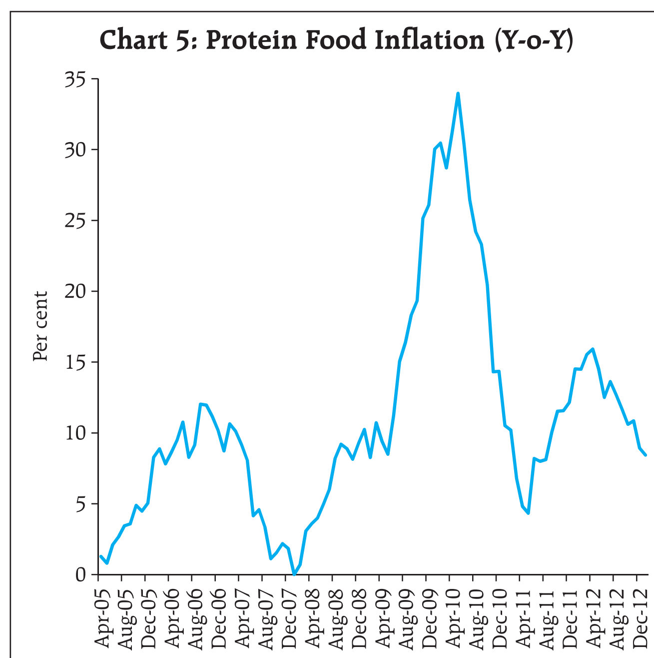
19. Just as India recovered from the crisis sooner than other countries, inflation too caught up with us sooner than elsewhere. Inflation, as measured by the wholesale price index (WPI), went briefly into negative territory for a few months in 2009 but started rising sharply thereafter, clocking a peak rate of 10.9 per cent in April 2010. Average WPI inflation was 9.6 per cent in fiscal year 2010-11, 8.9 per cent in 2011-12 and 7.5 per cent during the first ten months of 2012-13 (Chart 4). The story therefore is that at 8.7 per cent, the average inflation over the last three years has been higher than the average inflation of 5.4 per cent during the previous decade (2000-10)

What is Driving Inflation?

20. Both supply side and demand side factors have contributed to the buildup of inflationary pressures.

21. A major driver from the supply side has been food inflation, which has both structural and cyclical components. The structural component arises from rising incomes, especially in rural areas, which is leading to a shift in dietary habits from cereals to protein foods. Inflation of protein food prices remained in double digits for much of the last three years barring a few months (Chart 5). The cyclical component of food

Chart 5: Protein Food Inflation (Y-o-Y)



inflation arises from the monsoon related spike in prices of food items such as vegetables. Notwithstanding all the talk of drought proofing the economy, the timely onset of the monsoon and its spatial and temporal distribution continue to influence the inflation outlook in India.

22. The second major factor driving the current episode of inflation has been global commodity prices, especially the price of crude oil. India imports 80 per cent of its oil demand. The global price of oil is therefore an important variable in determining the inflation outlook. The depreciation of the rupee, starting October 2011, has compounded the inflationary impact of oil prices.

23. If the domestic petroleum sector was a free market and if global prices passed through to domestic prices, demand would arguably have declined in response to rising prices. But such a demand adjustment was blocked by the administered (subsidised) pricing regime of petroleum products.

24. Subsidisation did not, however, protect us from inflation pressures – the cost of subsidies raised the fiscal deficit which fuelled inflation. So, any softening of inflation that we gained through subsidisation was offset by a larger fiscal deficit.

25. There is a debate in India about the macroeconomic and welfare dimensions of subsidies financed, not by government surpluses, but by government borrowing. An argument against de-subsidisation is that it will be inflationary. Sure, it will be inflationary in the short-term, but price pressures will even out over the medium term. Also, the inflation impact should not be overstated. To the extent lower subsidies result in a lower fiscal deficit, there would be some disinflationary impact even in the short-term. Finally, reduction in subsidies will remove price distortions, improve efficiency and provide a much better investment environment.

26. The third major factor fuelling inflation has been wage pressures. Nominal rural wages increased at double digit rates over the last five years. Indeed, they increased so rapidly that, despite high retail inflation, real wage growth surged close to double digits in the last three years (Table 1). The Government's social safety-net programmes contributed to, and sustained, the wage-price spiral. In an economy with a per capita income of about US$ 1500, any increase in income quickly translates into increase in consumption demand and that is exactly what was witnessed in India. Producers were able, until very recently, to pass on the higher input prices in the form of higher output prices without sacrificing their margins.

Growth-Inflation Dynamics

27. India's growth-inflation dynamics pre-crisis and post-crisis present a study in contrast. In the three year period before the crisis, the economy expanded by 9.5 per cent on average, aided by growth in fixed investment above 15 per cent per year. This expanded production capacity to match growing demand and kept core inflation in check. Post-crisis, the story reversed. Investment declined to half its pre-crisis rate whereas consumption demand remained at the pre-crisis level until last year, owing partly to the government's entitlement and welfare programmes, opening up a positive output gap during 2009-11 and stoking core inflation.

Table 1: Increase in Rural Wages

Year	Nominal Wage Increase*	Average CPI (RL) Inflation	Real Wage Increase
	(Per cent)		
2007-08	8.9	7.2	1.5
2008-09	15.9	10.2	5.1
2009-10	18.0	13.8	3.8
2010-11	20.0	10.0	8.9
2011-12	19.9	8.3	10.6
2012-13 (Apr-Nov)	18.1	9.4	8.0

* Daily wage rate for rural unskilled labourer (male)
CPI (RL): Consumer Price Index for Rural Labour

Two Questions About Growth-Inflation Dynamics

28. The growth-inflation dynamics of recent years that I briefly summarised above raise two interesting and related policy questions. The first is about India's potential growth rate and the second is about why inflation is persisting at an elevated level even in the face of steeply moderating output growth. Let me briefly address them.

What is India's Potential Growth Rate?

29. There is considerable evidence from research done at the IMF and the Bank for International Settlements (BIS) that potential growth rates may have declined significantly in both advanced and emerging economies. India too, despite being less integrated with the global economy than other EMEs, has seen a drop in its potential growth rate. The Reserve Bank estimates show that the potential growth before the crisis was in the range of 8.0-8.5 per cent. This estimate was scaled down to 7.0 per cent after the crisis owing to a host of factors – decline in the pace of capital formation, supply constraints, especially of infrastructure, pressure on factor productivity because of tepid progress on reforms and a high fiscal deficit.

30. Some analysts contend that the potential growth rate may have dipped even below the Reserve Bank's post-crisis estimate of 7 per cent. The argument is that with growth dipping below 7 per cent last year and projected to dip even lower this year, we should have seen inflation and current account deficit soften. On the other hand, inflation persists at an elevated level and the current account deficit is likely to be the highest ever, suggesting that the economy is growing beyond its capacity and that the potential growth may be lower than even 7 per cent.

Why are India's Growth-Inflation Dynamics contrarian?

31. The second and related question is about why India's macroeconomic dynamics are contrarian. In particular, over the last two years, many of our peer EMEs have also experienced a growth deceleration, but in line with standard theory, several of them have also seen a moderation in their inflation rates. In India, however, inflation has not come down in line with growth deceleration. Several idiosyncratic factors are put forward to explain this uniqueness of our macroeconomic situation: supply bottlenecks, particularly in infrastructure, sectoral imbalances, rise in wages without a corresponding increase in productivity, higher fiscal deficit and larger depreciation of the exchange rate than in the case of our peers.

Reserve Bank's Action to Curb Inflation

32. To control inflation, the Reserve Bank reversed the crisis period's accommodative monetary stance in quick order. We raised the policy interest rate (repo rate) 13 times, cumulatively by 375 basis points (bps) – from 4.75 per cent to 8.5 per cent. Also we raised the reserve requirement on banks – the cash reserve ratio (CRR) – by 100 bps from 5 per cent to 6 per cent. Monetary policy is known to work with lags, and as a consequence of the tight monetary policy, WPI inflation which peaked at 10.9 per cent in April 2010, has come down to 6.6 per cent in January 2013.

33. In response to deceleration in growth and decline in inflation, the Reserve Bank eased the monetary policy stance starting January 2012 cutting both the repo rate (by 75 bps) and the CRR (by 200 bps).

Criticism Against Reserve Bank's Monetary Policy Stance

34. The Reserve Bank has been criticised for its anti-inflationary stance. Let me address some of the main strands of that criticism if only to illustrate the dilemmas that we face in managing the growth-inflation trade-off.

Monetary Policy has Only Stifled Growth, But has not Tamed Inflation

35. By far the most common criticism has been that tight monetary policy has stifled growth but has not tamed inflation. My response to this criticism is the

following. First, inflation has come off from its peak by over about 4 percentage points. Admittedly, growth too has moderated. However, the Reserve Bank's anti-inflation stance is motivated by the dictum that inflation is inimical to growth and that only in a situation of price stability can consumers and investors make informed choices.

36. It is important also to note that in order to contain inflation, monetary policy seeks to curb demand which, in turn, restrains growth. As per this logic, reduction in growth is an inevitable outcome of tight monetary policy. But this sacrifice is only in the short-term. In the medium term, there is no growth-inflation trade off; on the contrary, low and stable inflation secures sustained high medium term growth. And this is what the Reserve Bank is aiming at.

37. It is important to note in this context that the relationship between growth and inflation is non-linear. At low levels of inflation and stable inflation expectations, there is a trade-off between growth and inflation – some inflation can be tolerated to grease the wheels of growth. But above a certain threshold level of inflation, this relationship reverses, the conventional trade-off disappears, and high inflation actually starts taking a toll on growth. Estimates by the Reserve Bank using different methodologies put the threshold level of inflation in the range of 4 to 6 per cent. Inflation above 6 per cent would therefore justify, indeed demand, tightening of the monetary policy stance. It is this understanding that informed the Reserve Bank's monetary policy stance.

Monetary Policy Tightening is Inappropriate to Combat Supply Shock Driven Inflation

38. A second and related criticism of the Reserve Bank's anti-inflationary monetary policy stance has been that India's recent inflation is driven by supply shocks in food and fuel items and that monetary tightening does not help restrain inflation in such a case. It only results in avoidable sacrifice of growth.

39. I have several responses to this criticism. The first is that inflation was driven not just by supply shocks but by demand pressures as well, as evidenced by output expanding faster than the potential growth rate in the immediate post-crisis years of 2009-10 and 2010-11, the large and growing current account deficit and rapid growth in consumption demand.

40. Admittedly, there were supply shocks too, in addition to demand pressures, that were stoking inflation pressures. Monetary policy response to supply shocks is a deliberate balancing act because errors can be costly in terms of lost growth. If the judgement is that the supply shock is transitory (such as cyclical increase in vegetable prices), the preferred policy response should be to not respond by monetary tightening. If on the other hand, the judgement is that the supply shock is structural in nature and will persist, monetary policy has to respond since persistent inflation, no matter what the driver, stokes inflation expectations. Monetary policy is inevitably the first line of defence to guard against inflation getting generalised through unhinged inflation expectations. The Reserve Bank's policy response has been guided by the above consideration.

41. To sum up, the surmise from the challenge posed by the growth-inflation dynamics is the following. Today's investment is tomorrow's production capacity. India needs to not only reverse the investment downturn but also increase it significantly to raise production to match the growing consumption demand. Increase in investment is necessary also to raise production for exports and thereby create jobs at home. Making this happen requires a supply response from the government by way of providing public goods and creating a conducive environment for private investment. Meanwhile, the Reserve Bank has to ensure that inflation is brought down to the threshold level and is maintained there.

Second Challenge: Mitigating the Vulnerability of the External Sector

42. Over the last two years, India's balance of payments (BoP) has come under growing pressure as evidenced most clearly by a large and increasing current account deficit (CAD). The CAD last year (2011-12) was 4.2 per cent of GDP, historically the highest; the CAD during the current year is expected to be even higher.

43. Many will recall that India went through a balance of payments crisis in 1991 which, in fact, triggered wide ranging structural reforms that gave a market orientation to the economy. Despite India's growing integration with the global economy, the external sector remained robust for over 15 years after that. The current episode of BoP pressures, when the CAD is higher than it was at the peak of the 1991 BoP crisis (3 per cent of GDP) is, therefore, causing apprehensions about whether we have the capacity to stem the pressures and restore the BoP to a sustainable path.

44. The increase in CAD is quite evidently a consequence of imports growing faster than exports. (Table 2)

45. The increase in imports is largely accounted for by oil and gold imports. To understand the pressure these two items have put on the BoP, it is instructive to note the following. Net of oil and gold imports, CAD last year would have been in surplus of 3.8 per cent of GDP in contrast to a deficit of 4.2 per cent of GDP. The surge in gold imports is explained largely by the erosion in real returns on other assets owing to inflation. The reason oil imports have been price inelastic is due to the fact that nearly 60 per cent of petroleum products pass through an administered price regime; oil demand to that extent does not adjust to price increases. On the other hand, exports were not helped even though the real exchange rate depreciated, reflecting the fact that in a subdued global economy, exports are more sensitive to income (*i.e.*, global demand) than to price.

Table 2: Balance of Payments

	2010-11	2011-12
	(US$ billion)	
Exports	250.5	309.8
(y-o-y growth)	*37.4*	*23.7*
Imports	381.1	499.5
(y-o-y growth)	*26.8*	*31.1*
Of which		
- Oil	105.1	155.6
(y-o-y growth)	*20.6*	*48.1*
- Gold	40.5	56.5
(y-o-y growth)	*41.4*	*39.5*
Trade Balance	(-) 130.5	(-) 189.8
Current Account Deficit	(-) 45.9	(-) 78.2
Capital Flows	62.0	67.8
Reserve Charge	(-) 13.1	12.8
As % of GDP		
Exports	14.6	16.5
Imports	22.3	26.7
Trade Balance	(-) 7.6	(-) 10.1
CAD	(-) 2.7	(-) 4.2
Excluding gold (net)	(-) 0.7	(-) 1.5
Excluding oil and gold (net)	3.0	3.8
Capital Flows	3.6	3.6

46. Reflecting the current and capital accounts in the BoP, the exchange rate depreciated both in nominal and real terms (Table 3)

Three Concerns About CAD

47. There are mainly three concerns about the CAD in the balance of payments: (i) the quantum of CAD; (ii) the quality of CAD; and (iii) the financing of CAD. Let me briefly address each of these.

Table 3: Exchange Rate Movement

	Nominal Change	Real Change
	(Percentage)	
2011-12 (March 31, 2012 over March 31, 2011)	(-) 12.7	(-) 17.4
2012-13 (Feb. 28, 2013 over March 31, 2012)	(-) 4.9	(-) 2.8

Quantum of CAD

48. Reserve Bank's estimates show that the sustainable CAD for India is 2.5 per cent of GDP. A CAD above the sustainable level, year after year, is a clear macroeconomic risk as it raises concerns about our ability to meet our external payment obligations and erodes the confidence of potential lenders and investors.

49. An additional concern is that we are having a large CAD even in the face of slowing growth. This is perplexing because economic logic suggests that the CAD should improve in a slowing economy due to a decline in import demand. Cross country evidence in fact supports this hypothesis. Such an adjustment has not manifested in India though because: (i) oil and gold imports are relatively inelastic to income changes; (ii) on non-oil imports, domestic supply is still unable to compete with imports, and (iii) supply constraints and subdued external demand are impeding exports.

Quality of CAD

50. The concern about the quality of CAD arises from the composition of imports. If we were importing capital goods, we can may be countenance a higher CAD because investment in capital goods implies building production capacity for tomorrow. On the other hand, import of gold, largely as a hedge against inflation, is a deadweight burden, especially at a time when the CAD is beyond the sustainable level.

Financing of CAD

51. Even as the CAD has been high, we have been able to finance it because of a combination of 'push' and 'pull' factors. On the push side is the amount of surplus liquidity in the global system consequent upon the extraordinary monetary stimulus provided by advanced economy central banks. On the pull side are the measures taken by us to attract capital flows such as liberalising FDI, expanding the limits for foreign investment in corporate and government debt and easing restrictions on external commercial borrowing by corporates.

52. In trying to finance such a large CAD, we are exposing the economy to the risk of sudden stop and exit of capital flows. This will be the case to the extent capital flows in pursuit of short-term profits. Should the risk of capital exit materialise, the exchange rate will become volatile causing knock-on macroeconomic disruptions.

Monetary Easing in the Context of a Large CAD

53. While the external sector vulnerability is a cause for concern on a number of counts as I indicated above, it also poses a special challenge for calibrating the monetary policy stance.

54. In our quarterly policy review at the end of January this year, the Reserve Bank cut the benchmark repo rate by 25 bps in response to the growth-inflation dynamics that I outlined earlier. Several analysts and commentators have questioned the wisdom and logic of monetary easing at a time when the CAD is rising. There are two elements to this argument: (i) an interest rate cut raises aggregate demand, and hence demand for imports, and will aggravate an already elevated CAD; and (ii) an interest rate cut will narrow the interest differential between India and the advanced economies which are the source of capital, and could potentially lead to capital exit.

55. Let me respond to both these strands of criticism:

56. The risk of the CAD widening further because of the stimulus offered by the rate cut is much less than apprehended for a host of reasons. First, when growth is sluggish as is the case now, the rate cut is unlikely to translate into import demand. Second, the rate cut was a response to softening inflation. Lower inflation will improve the competitiveness of our exports. Third, the rate cut was effected during a phase of easing

commodity prices – particularly of oil – which will reduce the pressure on the CAD. Finally, empirical evidence shows that in emerging economies such as India, import demand is less a function of lower interest rate than of increased income. In other words, the marginal propensity to import by borrowing money is small.

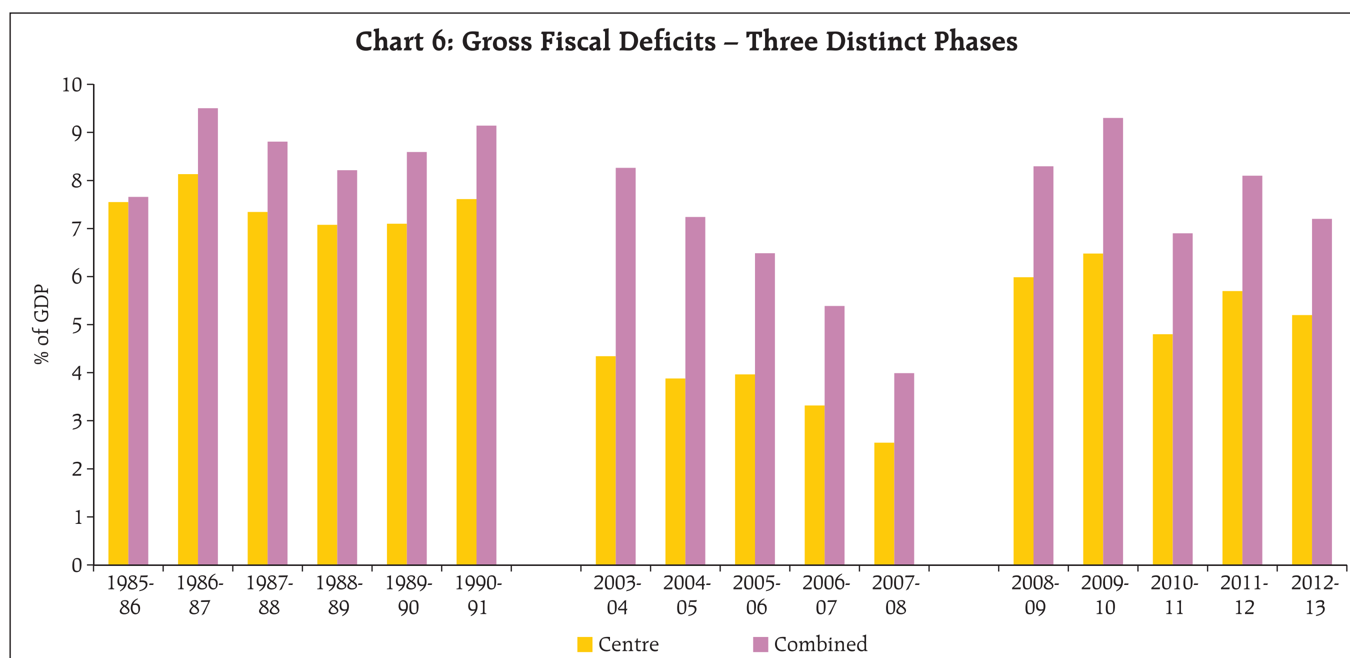
57. On the other criticism about the impact of capital flows required to finance the CAD, it must be noted that interest rate differential is only one of the several push and pull factors that influence capital flows. Moreover, debt and equity flows have traditionally responded differently to a rate cut. While debt flows may be more sensitive to a narrowing of the interest rate differential, equity flows may actually increase because they see in this a signal of lower inflation and better investment environment. This has been the experience of India leading some analysis to all this, the 'Indian exceptionalism'.

58. The last thought I want to leave with you on the issue of managing the external sector vulnerability is that gone are the days when monetary policy could be calibrated on entirely domestic macroeconomic considerations. As India integrates rapidly with the world in the years ahead, it will perforce have to take into account the spillover from global situation in determining its monetary policy stance.

Third Challenge: Managing the Political Economy of Fiscal Consolidation

59. The large fiscal deficit of the government remains one of India's biggest macroeconomic challenges. Received wisdom today is that it was the fiscal profligacy of the 1980s that spilled over into the external sector and fuelled the balance of payments crisis of 1991. In 2011-12, the combined fiscal deficit of the centre and state governments was 8.1 per cent, quite close to the figure of 9.1 per cent in the BoP crisis year of 1990-91 (Chart 6). Quite understandably, there are concerns about the adverse macroeconomic consequences of the twin deficit problem – a large and persistent fiscal deficit along with a high CAD.

60. There has been some very welcome, although much delayed, action on correcting both the CAD and the fiscal deficit over the last six months. The Government has raised customs duty on gold imports



in an effort to restrain gold imports. More notably, the recent budget has firmly embraced fiscal responsibility by restraining the fiscal deficit next year consistent with the road map recommended by the Kelkar Committee.

61. In the pre-crisis period, India's fiscal consolidation was largely on track, consistent with the targets adopted under the Fiscal Responsibility and Budget Management (FRBM) Act, 2003. However, this consolidation got interrupted by the crisis induced fiscal stimulus. Thereafter, the government adopted a revised road map for getting fiscal consolidation back on track, and adhered to the target in 2012-13. Nevertheless, the combined fiscal debit of the centre and states, budgeted at 7.2 per cent of GDP during 2012-13 is still high. Notwithstanding political economy compulsions, credible fiscal adjustment along a transparent, predictable road map is an imperative for growth and macroeconomic stability.

Why is Fiscal Deficit Bad?

62. Fiscal deficit is bad for a number of reasons. Large and persistent fiscal deficit threatens the government's debt sustainability. The growing interest burden eats into the resources available for discretionary expenditure. Importantly, it crowds out the private sector from the debt market, inhibits private investment and affects future production capacity. Fiscal deficit can also spill over and trigger balance of payments pressures as indeed happened in India in 1991.

63. By far the biggest concern stemming from a large fiscal deficit, especially from the Reserve Bank's perspective, is that it adds to aggregate demand and thereby to inflation pressures. By crowding out the private sector, fiscal deficit could also inhibit, if not impair, monetary policy transmission to the private sector. Credible fiscal consolidation is, therefore, a necessary pre-condition for stabilising inflation and securing non-inflationary growth.

Fiscal Consolidation and Growth

64. There are some concerns, admittedly marginal, that fiscal consolidation in a sluggish growth environment will only dampen growth further thereby adversely impacting revenues and pushing the economy into a vicious downward spiral. There is some validity to this argument. But a growth slow-down on account of fiscal consolidation is not unavoidable. Growth slow-down can be mitigated, indeed growth can be aided, provided attention is paid, along with the quantum of fiscal adjustment, also to its quality. Experience demonstrates that even if total expenditure as a proportion of GDP is curtailed, it need not dampen growth; on the contrary, if there is switching from current expenditure to capital expenditure, fiscal consolidation can actually stimulate growth by 'crowding in' private investment.

65. Empirical estimates for India validate this finding – even in a context of decline in total public expenditure as a proportion to GDP, fiscal consolidation can improve medium-term growth prospects if government increases capital spending, offsetting the moderating impact of growth in the short-term. These results reflect the higher long-run fiscal multipliers for capital expenditure and very low long-run multipliers for current expenditure.

66. The economics of fiscal consolidation are quite straight forward. The complexity arises from the political economy. Tax increases and expenditure compression – the two strands of fiscal consolidation – are never politically popular, especially in democracies where political executives, virtually everywhere in the world, are characterised by high discount rates. They are much more tempted by short-term political pay offs rather than long-term sustainability. Fiscal consolidation, by definition, is a long-term game. In the short-term political costs may exceed benefits; in the long-term, the economic and political benefits far outweigh any costs. It is this congruence of economic and political virtue that must inform fiscal consolidation.

Summing-up: India Growth Story Intact

67. Let me now sum up. I have spoken to you about the following three macroeconomic challenges confronting India and I have given you the Reserve Bank's perspective on them.

i. Managing the growth-inflation dynamics

ii. Mitigating the vulnerability of the external sector

iii. Managing the Political Economy of Fiscal Consolidation

68. These are formidable challenges, but by no means insurmountable. For people who despair, it is important to remember that the drivers of the India growth story – get up and go entrepreneurism, the demographic dividend, a large and growing middle class, the opportunity for productivity catch up, democracy and a decent legal system – are all intact.

69. The 12th Five Year Plan aims at a growth rate of 8.2 per cent for the Plan period (2012-17). Growth at this pace is the minimum necessary. Indeed, India needs to grow even faster, at a sustained double digit pace, if it has to pull hundreds of millions of people out of poverty. The India growth story has all the ingredients to deliver on this promise.

70. But the India growth story is not inevitable. It will not materialise in the absence of vigorous and purposeful structural and governance reforms. It is those reforms that must continue to engage our attention.

*Financial Consumer Protection**

K. C. Chakrabarty

Madam Anne Le Lorier, First Deputy Governor, Banque de France, Senior executives from the Banque de France, Shri G. Padmanabhan and Smt. Deepali Pant Joshi, Executive Directors and my other colleagues from the Reserve Bank of India, Principal and the staff at College of Agricultural Banking, Pune, participants to the seminar, ladies and gentlemen! At the outset, I extend a warm and hearty welcome to all of you, and especially to our guests from France, I say '*bienvenue*'. I am pleased to be here this morning to flag off a journey of joint-learning, discovery and exploration by RBI and BdF on a subject that has engaged the time and attention of governments, regulators, policy-makers, academics, NGOs, consumers, etc. for the past three years and more and which quite aptly is also the theme of this Seminar – 'Consumer Protection'. We are privileged to have the First Deputy Governor, Madam Anne Le Lorier here and are sure that the seminar deliberations would be enriched by her presence. The seminar has been structured to cover various dimensions of consumer protection with separate sessions on building consumer awareness, customer rights and duties, emerging regulatory approach for consumer protection (Twin Peaks), legal aspects of consumer protection, etc. In view of the growing use of IT in the financial sector, the seminar would also devote time to deliberate on consumer protection issues in retail and electronic payment systems and the impact of information technology on consumer protection. We also have sessions devoted to the co-operative sector and to linkages between financial inclusion/literacy and consumer protection. Keeping in mind the exhaustive seminar schedule, I feel that my role here today is to set the tone for the Seminar and this; I intend to do by presenting a few random thoughts on various dimensions of consumer protection.

Introduction

2. It is, indeed, deplorable that in spite of access to financial services being universally recognised as an important ingredient to the growth and prosperity of people and nations, over half the adult population in the world remains 'unbanked'. In the wake of the Financial Crisis and widespread discontent among the poor and the vulnerable sections of the society, access to financial services, their governance and their development have emerged as the prime objective for policy makers in rich and poor countries alike. We must appreciate, however, that the dimensions of consumer protection in the rich and poor countries are very different. While the focus in developed countries is more on protection of consumers' rights, in the developing world, provision of access to financial services to the consumers is the immediate priority. Consumers are not some endangered species in need of protection and the issue of consumer protection is not limited to specific acts of consumption. The consumer as depositor, saver and borrower is not just another link in the chain, but the central actor in the financial marketplace and as such, he is most impacted by the ill-effects of macro and micro-economic problems that have gripped the financial sector.

3. Let me raise a fundamental issue here. The financial services sector is essentially driven by commercial intent and the actions of service providers

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and the issue of consumer protection should be taken care of by competitive market forces. Why are we then discussing the issue of financial consumer protection? It is because the barriers to entry for the service providers in the financial sector, especially banking, are quite stiff. In view of regulatory restrictions on number of market players, consumers are forced to receive services from a limited set of service providers. Furthermore, in view of rampant information illiteracy, the self regulating market behaviour does not work especially for the poor and vulnerable and hence, ensuring consumer protection becomes a regulatory obligation.

4. In addressing the issue of financial consumer protection, the important thing is to be able to identify the section of consumers who are most vulnerable. Who are these consumers and what is consumer vulnerability? The Consumer Affairs Victoria, a Government agency in the state of Victoria, Australia has explained consumer vulnerability as the 'exposure to the risk of detriment in consumption due to the interaction of market, product and supply characteristics and personal attributes and circumstances'.

5. While this definition highlights a number of vulnerability elements that a consumer is confronted with, I feel that Information Vulnerability is the key challenge faced by consumers. The other vulnerability elements are more of an outcome of the information asymmetry that exists between the providers of financial services and the consumers. This information asymmetry gives rise to opportunities for consumer exploitation and hence, creates a need for protecting consumers. Let me emphasise that the problem of information vulnerability has multiple dimensions. The most common manifestation is the lack of access to information, which results in sub-optimal decision making. Information vulnerability can also arise due to limited ability of consumers to analyse the information available to them. This problem is greatly accentuated in case of the uneducated and excluded sections of the population, who neither possess the tools nor the skills to effectively utilise the available information. Another dimension is the problem of information overload, wherein the consumer is unable to distinguish the 'message' from the 'noise', thereby prompting him/her to ignore the entire information and end up in a state of what I call, 'analysis-paralysis'.

Addressing causes of Consumer Vulnerability

6. The possible solution to insulate consumers from vulnerabilities is by ensuring that the financial service providers treat their customers fairly. The financial institutions must understand what fair and equitable treatment of customers means and then align their business practices to achieve the desired outcomes. The fair treatment to customers is seen as being synonymous to consumer satisfaction and following a consumer-centric approach. Simply put, fair treatment of customers involves ensuring that the products and services offered by financial institutions are suitable for the customers and appropriate to their risk profile, pricing is transparent and non-discriminatory and that the service is delivered in a speedy, safe and secure environment. For instance, while banks are justified in levying reasonable charges for services provided, are they justified in levying charges without providing any specific service (*e.g.*, customers not conducting any transaction in the account)? An attendant aspect of consumer protection in the financial services industry is the provision of efficient grievance redressal machinery which should be 'quick' and 'just'. I will return to this aspect a little later.

7. A documented Treating Customers Fairly (TCF) policy seeks to regulate the design and marketing of financial products and services, the system of information dissemination, facility for after-sales support and the grievance redressal procedure. Effectiveness of the TCF framework in organisations would depend upon the extent to which it is integrated into the organisation's DNA. At the individual level, effective implementation of TCF requires that the TCF goals are embedded into the employee performance measurement and rewards systems.

8. Ensuring fair treatment to consumers would also mean that behavioural and cultural changes would have to be brought about in organisations. This cannot be achieved merely by ring-fencing consumer protection within the compliance function. Instead, the entire institution – right from the Board to the frontline managers – have to be responsive to this objective.

Need for a Credible and Effective Regulatory Regime

9. The presence of a credible and effective regulatory regime acts as a source of confidence and comfort in the financial system. This helps in attracting more participants to the market place, thereby making the financial system inclusive and efficient. The experience from the global financial crisis is that self-regulation, often, does not work. The presence of a strong, intrusive and hands-on regulator/supervisor gives the confidence that markets will operate as per sound principles and would be free from unfair and unethical practices. This trust forms the basis of functioning of the entire financial system and any dent in this trust can have a significant destabilising influence. The series of measures initiated by global standard setting bodies and individual regulators in the aftermath of the financial crisis clearly underscore the imperative of having a credible and effective regulatory regime. Consequently, the effort is on to leverage these regulatory initiatives to rebuild trust and confidence in the global financial system. It is now globally accepted that in order to earn the trust of the consumers/market participants, it is important that the regulatory system is seen and perceived to be fair and transparent.

Twin Peaks Approach to financial sector regulation and supervision

10. The pre-crisis financial sector regulatory and supervisory architecture across various jurisdictions placed overarching emphasis on the financial strength and soundness of banks. Commentators generally presumed that there were strong synergies between prudential regulation and consumer protection and, therefore, an integrated supervisor could take care of both objectives. However, the crisis highlighted that the integrated supervisors are more likely to give precedence to safety and soundness mandates, as these are closely intertwined with financial stability, rather than focusing on consumer protection issues. The Twin Peaks Approach helps in resolving this conflict. The Market Conduct Regulator is focused on ensuring that the institutions design the products and services in line with the customers' needs, maintain integrity of the markets and conduct their businesses keeping the primacy of the customers' interests in the forefront.

Product design, financial innovation and consumer protection

11. One of the reasons for the perpetuation of the global financial crisis was that financial innovation resulted in creation of products that were not suited to consumer requirements. Also, these products had risk profiles that were not fully understood by consumers or financial market participants. The crisis

was an instance of financial innovation growing beyond consumer expectations and hence, contributing to financial system vulnerability. Let me emphasise that the basis of all product design and financial innovation should be consumer need. Products and processes should be created only to meet specific expectations of consumers. The ability to orient the products and services to consumer expectations would determine the success and sustainability of organisations and markets.

12. As I mentioned earlier, very often financial engineering creates complex products out of inherently simple products. This is very common in the world of structured financial derivatives, where the payoff profile and risks inherent in the structure are significantly different from those of its underlying constituents. When such product design is combined with aggressive sales practices led by perverse compensation systems, it leads to mis-selling to gullible consumers. The end result is a slew of consumer disputes, resulting in loss of reputation for the financial service providers.

13. The Sergeant Review of Simple Financial Products in the UK has identified four attributes for financial products to be classified as 'simple' *viz.*,

- The products should help consumers benchmark and compare with other products in the market.
- The product must be understandable and accessible to the mass market.
- The product must not be tailored to meet individual needs, but provide consumers with confidence that the product will meet their basic needs and offer them a fair deal; and
- The product will be a viable commercial proposition for the provider.

14. Financial sector regulators/supervisors and consumer protection bodies need to keep a close watch on product design and financial innovation in order to ensure that these are oriented towards consumer needs and expectations. Market intelligence mechanism should also focus on identifying products which could, potentially, expose consumers to unintended outcomes. Individual financial service providers should also have internal frameworks for vetting new product offerings so as to ensure that they are in alignment with regulatory requirements and consumer expectations. In fact, an assessment of the financial products and services for their reasonableness and suitability to customers is going to be one of the main planks for the Financial Conduct regulators under the Twin Peaks structure.

How to ensure that the consumer voice is heard

15. Though consumers are the core around which the entire financial services business revolves, the consumers' voice is the feeblest and, very often, not heard. This inability to understand the consumer and his needs is the genesis of all consumer protection issues. There are a number of ways in which the consumer voice in the financial regulatory system could be strengthened, not just in the interests of the consumer, but also in the interests of the sustainability of the financial system.

- We have to encourage a culture of openness towards consumers, their aspirations and expectations. Our products and processes should have the inherent flexibility to adjust to changing consumer needs. Successful consumer-focused organisations inculcate the ability to constantly learn and improve, both at the individual level and at the organisational level. Success in the mission of customer

service depends on the flexibility demonstrated by service providers in constantly re-learning and re-orienting their business operations based on evolving market dynamics and customer expectations.

- As I briefly touched upon earlier, having an effective communication strategy is important, including for regulators, to regain the confidence of consumers and the financial system. Importantly, we need to leverage the power of the media, including the newer channels, to get across our message of consumer awareness and protection. The media needs to be seen as an ally in generating consumer awareness and in implementing an effective framework for consumer protection.
- The institutions must have their ears to the ground so as to get a feel and understanding of evolving trends and practices. For commercial institutions, having this ability lends them a competitive edge over others as they can evolve their product offerings in line with changing trends. For regulators, this is a vital input in anticipating build up of risks and taking proactive measures.

The holy trinity – financial inclusion, financial education and consumer protection

16. Post the global crisis, financial sector regulators and policy makers have been focusing on the objective of 'financial stability' to bring back sanity and normalcy to the global financial system. That financial inclusion, financial education and consumer protection, form the three essential pillars on which financial stability rests, has been universally endorsed and accepted. Banking the unbanked, providing access to financial services, educating the consumers and creating a sense of safety in their minds are necessary for the governments and regulators alike, both in India and elsewhere. With nearly 4.5 billion people on this planet owning a mobile phone, there is a very strong likelihood of financial inclusion being pushed through the mobile phone and mobile payments medium. This is likely to be more so in the developing countries where mobile phone penetration is 8 – 10 times the penetration of the basic bank account. The lack of formal financial services infrastructure and widespread financial activity limits market exchanges, increases risks and curtails opportunities to save. Without access to formal financial services, the households are forced to rely on informal sources that are high costs. The protection, safety and security of this important class of customers cannot be wished away. In this context, the regulators and governments can play an important role by providing an efficient infrastructure for mobile payments. This framework might include regulation of low – risk money transfer services, enabling non-bank organisations to facilitate low-risk/low value transactions and wherever possible, implementing regulations at the system level (without interfering with the customer interface). On the part of banks, rather than treating mobile payments as a threat, they need to see it as an opportunity to access otherwise unprofitable low-income segments market. Banks will need strong partners and a strong platform to succeed. In India also, we have been proactively pursuing the three objectives and are even exploring the possibility of enshrining financial inclusion in the Code of Banking Practices (in India referred to as the Code of Commitments).

17. In terms of financial education, while the thrust would continue to be on the basics in terms of products, services, risk profile and suitability, we need to think ahead and look at the scenario where self –

service banking is on the rise. The evolution of ATMs in India is only the beginning of the self-service menu. We are yet to witness the full range of products and services where the customers will be helping themselves (and of course the banks) with gadgets and apps that they may not be very familiar or comfortable with. So, welcome customer education and hand holding!

Retail distribution of financial products

18. The retail distribution of financial products and services was subject to review in Australia and United Kingdom alike and the issues thrown up by these reviews have great lessons for consumer protection. The retail distribution, as is now being carried out, may not necessarily be in the best interest of the consumers. There are certain issues, particularly from the perspective of incentive structures for sale of financial products, monitoring of AML requirements, risks of mis-selling, inadequate understanding of risks by the sales persons, etc. that make it important that financial service providers and regulators to have a close look at the practices followed in retail distribution of financial products.

19. As regards regulating the activities of the financial advisers, it is very important that the people with small means get proper advise at the right time and at least cost. The regulators, perhaps, have to take this responsibility upon themselves with a view to empowering the consumers and helping them protect their life savings.

Regulation and market failure

20. There have been a number of essays, writings and chronicles on the global financial crises of 2008. Nobel Laureate Dr. Joseph Stiglitz also extensively covered these events in various articles which have been compiled and published as a book under the title 'Price of Inequality'. In his essay on 'Regulation and Market Failure', Dr. Stiglitz says and I quote ***'It is clear that our regulatory structure failed. Evidently, there was market failure, but there was also government failure. The primary reason for the government failure was the belief that markets do not fail, that unfettered markets would lead to efficient outcomes, and that government intervention would simply gum up the works. Regulators who did not believe in regulation were appointed, with the inevitable outcome that they did not do a very good job of regulating'***. This has, perhaps, been one of the most significant lessons from the financial crisis and is reflected in the fact that there is a global clamour for tightening regulation and supervision of markets and market practices. The evolving regulatory and supervisory initiatives are expected to have a significant positive impact on protection of consumer interests.

Compensation schemes and redress mechanism

21. The financial services industry must have well articulated and clearly defined compensation schemes that are easy to access, adequate in quantum and effective in implementation. The roles and responsibilities of the consumers and service providers in different situations need to be spelt out up-front. I always believe that to err is human but from an institutions' point of view, to confess is divine. If an institution is in the wrong, why should it wait for the consumer to approach it for compensation? Would it not be righteous if the bank or financial institution on its own initiates actions to undo the wrong inflicted on customers, some of whom may have not even complained? Imagine the impact such an approach would have on the faith and confidence consumers have on the financial system.

22. Another important aspect is the existence of a robust, responsive and reliable grievances redress mechanism in the banking/financial services industry, something I have alluded to earlier. The credibility of the banks' redressal systems needs to be reinforced by constant follow up by the regulator. The very fact that often bank customers find it safer and simpler to get their grievances resolved by routing them through the regulators or the Ombudsman Offices is a reflection on the quality and effectiveness of redress mechanism put in place by banks. We have a long way to go to improve the credibility of the system. People will access the redress mechanism only when they are assured of an impartial outcome. It requires a lot of courage, persistence and knowledge to pursue and follow up grievances with banks/financial institutions. It will be in our own interest to usher in a culture where people are encouraged to complain if anything is amiss. The felt attributes of consumer protection are a result of the customer care policies that banks promise to have in place. But, many a times, the same are not implemented at the ground level mainly due to ignorance and lack of sensitivity on the part of the frontline managers. Skill building and knowledge enhancement of bank staff is necessary, if we wish to have a pro-active consumer protection policy in the banking industry.

Conclusion

23. As a part of my inaugural speech I have tried to set the tone of the Seminar, by touching upon different facets and attributes of consumer protection, drawing from the global as well as the Indian experience. I am tempted to refer here to the comments made by the World Bank – IMF team in its report on the Financial Sector Assessment for India (2012) about consumer protection: ***'India has comprehensive policies and compliance mechanisms for the protection of banking consumers, and is ahead of most countries in this area. Going forward, including non-banking financial companies (NBFCs) in the mandates of the Banking Codes and Standards Body of India and of the Banking Ombudsman System (BOS), ensuring consumer protection of the entire financial system, and devising a strategic consumer awareness program, will further strengthen the system'.*** I accept this feedback with all the humility at my command, and I am fully aware that much more needs to be done to improve the consumers' lot. Even in a free market economy with competition as the necessary pre-condition, it is not necessary that the consumer is treated as the king. But what we must strive to bring about is a culture where the consumer is treated as a good human being by focusing on the values of fairness, transparency, and non-discrimination. Going forward, customer-centricity will be a must for the regulators and the regulated entities alike in the wider interest of financial stability, an essential cornerstone of which is consumer protection.

24. I hope that this joint seminar between the Banque de France and the Reserve Bank of India lays down the foundation of a long and fruitful partnership between the two institutions and that such seminars become a regular event. Considering the impressive list of experts from both institutions who are scheduled to speak over the course of the next two days, especially Madam First Deputy Governor, I am sure that the Seminar will prove to be very useful in sharing of knowledge and experience among the participants. I wish the Seminar all success and hope that our guests from the Banque de France have a pleasant stay in India and do find time to get a feel of the rich cultural cocktail that this country presents.

Ladies and gentlemen thank you for your patience. Merci

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*Transitioning from Student to Professional Lives: Some Reflections**

K. C. Chakrabarty

Dr. M. Narendra, CMD, Indian Overseas Bank; Dr. (Smt.) P. Selvameenakshi, Principal, V.V. Vanniaperumal College for Women; Shri S.M.S. Manickavasagam, Secretary and Smt. M.M.N Jikki Mathavan, Joint Secretary, V.V. Vanniaperumal College for Women Managing Board; distinguished members of the audience and dear students. It is, indeed, a great honour and pleasure to be here in your midst today to deliver the Convocation address at this college of eminent credentials. I am proud of the fact that I have been handed this opportunity to deliver this convocation address at a college, which was inaugurated by one of the leading freedom fighters and statesmen of our times/Bharat Ratna Hon. K. Kamaraj, someone whom I deeply admire. The academic excellence achieved by your college over the past five decades is a glowing tribute to the vision of the man who introduced free mid-day meal scheme in schools and free education upto 11th standard for poor children during the 1950s.

2. To be amongst bright young students is always a refreshing and feel-good experience and whenever such an opportunity comes up, I quite look forward to it. Let me begin by congratulating all the students of the college who have successfully graduated in their respective academic disciplines and are receiving their degrees today. Convocations are special as they simultaneously signify both – a conclusion as also a commencement. They logically conclude a formal learning exercise and hence, provide an occasion for relief, fulfilment and joy for the graduating students as well as the faculty members. They are, however, even more special, because they commence a lifelong informal learning as graduates step out into the University of the World – step out with dreams, hopes and expectations into the *terra incognita* of life. In our days, when we passed out, it was not a dream but a nightmare, because of the difficulty in getting employment. Though over time, considerable employment opportunities have come up across various sectors, especially the services sector, finding a fulfilling job remains as big a challenge as ever. However, I am confident that this venerable institution has prepared you to face and surmount all challenges that life throws at you. I am privileged to share this special day with a bright set of youngsters, who, I hope, would turn out to be the highly successful financial and social entrepreneurs of the future.

3. This convocation ceremony marks a major milestone in your career. It not only indicates the culmination of the hard work you have put in over the years, but also marks your transition from students to professionals. I know only too well the time, effort and dedication that are needed to acquire such important academic qualifications. I would also like to take this opportunity to congratulate members of your families who are present here on this very important day in your lives. I am sure they have contributed greatly to your success and fully share your moment of glory. You should always remember that, but for the support and love of your parents and families and the dedication and commitment of your

* Convocation Address by Dr. K. C. Chakrabarty, Deputy Governor, Reserve Bank of India at the V.V. Vanniaperumal College for Women, Virudhunagar on March 24, 2013. Assistance provided by Shri Suddhasattwa Ghosh in preparation of this address is gratefully acknowledged.

faculty members here, it would not have been possible for you to reach this milestone in your lives.

4. In a country like ours, education is not only the key to a brighter future; it is, often, also a key to survival. Using education as a primary strategy, our visionaries and pioneers have aimed to harness, particularly the potential of girls and women, to learn, lead and act on their vision of change for themselves, their families, their communities and the nation. Pandit Nehru famously remarked, 'You can tell the condition of a nation by looking at the status of its women'. The Beijing Declaration at the Fourth World Conference on Women (1995) noted that, 'Women's empowerment and their full participation on the basis of equality in all spheres of society, including participation in the decision-making process and access to power, are fundamental for the achievement of equality, development and peace'. In India, there has been a perceptible increase in literacy rate amongst women from 53.67 per cent (Census 2001) to 65.46 per cent (Census 2011). However, there is still a large gender gap in literacy at 16.68 per cent which needs to be bridged. In this context, it is extremely gratifying to note that your college has been doing a remarkable work in empowering women of this region by providing them access to quality higher education ever since its inception about half a century ago. I am glad to learn that this institution has received the best women's college award consecutively for the last seven years. However, let me hasten to remind that such accolades place even greater responsibility upon the college, its teachers, administrators and students to work harder and keep up the good name of this august institution.

5. For years, women in India have almost silently supported the stability of our society's cultural institutions and the continuities and consistencies of their ethos. However, today, the contours of the world we live in are changing dramatically. The space for growing up and living has new co-ordinates. Educated, armed with knowledge and skills, women are entering in a big way the world of occupation, career, profession, competition and achievements in their own right and are creating a space where the emphasis is on expressing themselves and being accepted as independent, autonomous beings.

6. Our women are now more confident about their ability to discover and identify their personal capabilities as also to discover a vision of life beyond that defined by social structures and the network of relationships. Today, they encounter the possibility of creating a world beyond their visible horizons and boundaries.

7. Empowerment of women, gender discrimination and violence against women have become subjects of serious public discourse as also sociological research in India in recent times. Several attempts have been made through the years to study the status of women in India and these studies have clearly brought out that the participation rates of women in economic activities are very low. The Draft 12th Five Year Plan document released in December 2012 has noted that there has been a consistent decline in workforce participation rate (WPR) of women since 1980s but the decline seems to have accelerated between 2004–05 and 2009–10. The decline in female labour force participation has occurred in both rural and urban areas, though the decline is much sharper in rural compared to urban areas.

8. The Human Development Report, 2013 presents the Gender Inequality Index, which is a parameterised

indicator of the inequality in status and opportunities for the women in the population. Its assessment is based on three parameters *viz.,* Labour Market, Empowerment and Reproductive Health. It is disappointing to note that on the status of gender inequality, the report places India at a lowly 132, which is a fall of three positions from the previous report. Our ranking on gender inequality is in stark contrast to our claims to being a progressive society and a developing nation. It brings into sharp focus the urgent need to implement effective measures for quickly reversing this position. Each one of us, cutting across professions and positions in life, have an important role to play in making this transformation.

9. Prior to independence, the gender divide within our labour force was an accepted norm. Especially since the 1970s, scholars and activists have challenged the inequalities that had been established and have fought to reverse them. These inequalities included unequal wages for women, relegation of women to unskilled spheres of work, and restricting women as a reserve army for labour. These scholars and activists have also sought to focus on class-consciousness in this discourse, recognising the inequalities not just between men and women but also within social structures such as caste, tribe, language, religion, region or class. In recent years, the focus of such deliberations has gone beyond treating women as useful members of society and now also focuses on empowering them to decide the course of their personal lives and the right of self-determination. I am glad that the V.V. Vanniaperumal College is playing a transformational role by churning out a knowledgeable and empowered lot of women year after year, who can claim their rightful place under the sun.

10. Lack of education and empowerment of women is also reflected in the extent of disparity between the proportion of financially excluded men and women. That women in India are much more financially excluded than the men is evident from the fact that as of March 2011, only 21 per cent of total bank deposit accounts were held by women and these accounted for just about 12 per cent of the total volume of deposits. Similarly, women availed only 18 per cent of the total small credit from banks in 2011. Therefore, initiatives to empower women should, necessarily, include strategies to link them to the formal financial system by providing them access to deposit and credit accounts.

11. However, considering the centrality of banks to the nation's economic order, their role in women empowerment cannot be restricted merely to linking them to the formal financial system. The banking and finance sector in India has emerged as a significant employer of women, though related data suggests that there is still tremendous scope for improving their presence in this sector. The financial sector, in specific, requires its employees to possess traits of passion, conviction and compassion that the women display in abundance. The sense of empathy and understanding that the women possess enables them to earn respect and acceptability of their co-workers. Expert studies highlight that women are more adapt in dealing with concerns of employees, shareholders and customers. They are not only good at collating and combining information, their better intuitive abilities also helps them to make informed decisions. As leaders, the women bring in an environment of strength, confidence, inclusiveness and trust. It is no wonder then that women have risen remarkably to the top in the banking sector in both – the public and private sector in India. I urge this bunch of young women

graduates today to choose finance and banking as their career option where they can really excel and serve the customers and society with distinction.

12. As you must be aware, the Hon'ble Union Finance Minister Shri P. Chidambaram has proposed in this year's Union Budget that an all-women public sector bank will soon be set up, which will predominantly employ and lend to women. This is, indeed, a very welcome step and will also, in a sense; help take forward the Reserve Bank's financial inclusion and financial literacy efforts, which also strongly focus on women's awareness about and access to financial services.

13. The world of banking has, in fact, been a mirror of history at large. 'Money makes the world go around', the saying goes. Banking activities resemble a wheel turning continually. Banking in India too has gone through many phases. While historians can slice the past into countless slivers, in terms of transformational change, there have been only a few inflexion points in post-independence banking in India.

14. The first was the enactment of the Banking Regulation Act, 1949 which brought in a comprehensive and formal structure of bank regulation and supervision in India. The nationalization of banks in our country in 1969 marked the second such point. It generated forces that took banking beyond the elite class to the masses. It led to the establishment of a very substantial infrastructure across the geographical expanse of the country and was, thus, a critical trigger for financial outreach of institutions and empowerment of the common man. The third inflexion point in banking was the financial sector reforms initiative that was launched in the early 1990s.

15. These reform measures were initiated and sequenced to create an enabling environment for banks to overcome the external constraints – these were related to administered structure of interest rates, high levels of pre-emption in the form of reserve requirements, and credit allocation to certain sectors. One of the major objectives of banking sector reforms has been to enhance efficiency and productivity through competition. As you know, the Reserve Bank is currently considering issuing licenses for establishment of new banks in the private sector.

16. This changed environment and the internal compulsions arising from greater competition and the need to improve market shares and/or profitability is resulting in the banks' quest for greater efficiency and an effort to reposition themselves, given the realities of the environment and their internal strengths and weaknesses. This also generates more possibilities and greater opportunities for young graduates and post-graduates like you. The Reserve Bank too now recruits a certain number of people every year. It is a wonderful opportunity that aspirants like you can look forward to, and prepare for, every year.

17. We live in an age of unprecedented opportunities. But, with opportunity comes responsibility. It is for tomorrow's managers to carve out their own place, to know when to change course and how to keep themselves engaged and productive throughout. To do things well, one needs to cultivate a deep understanding of oneself – not only the strengths and weaknesses but also how one learns, how one works with others, what his or her values are and where he or she can make the greatest contribution. Because only when one operates from strength, can true excellence be achieved! It is, therefore, for all of

you to keep on learning, understanding yourself and your environment, so that you always stay ahead of the curve as far as success in various life roles is concerned.

18. The emerging challenges in the banking and finance sector call for a new, more dynamic, aggressive and challenging work culture to meet the demands of customer relationships, product differentiation, brand values, reputation, corporate governance and regulatory prescriptions. Understanding and dealing with difficult transitions would be the key for youngsters like you while designing strategies for the organizations that you will be eventually joining. While leadership skills, the ability to multi-task and manage competing imperatives will be the necessary ingredients of the new generation managers, the old-fashioned qualities of desire to learn, a strong sense of professional ethics, an enquiring mind, a strategic view, the qualities of humility and empathy, a willingness to embrace practical experience, and an eagerness to adapt to new experiences would continue to be critical. I am personally convinced that the women folk enjoy a head start when it comes to being able to multi task and manage competing imperatives.

19. Dr. Charles Eliot, the eminent educator at the Harvard University, was often asked, 'How had Harvard gained its reputation as the greatest storehouse of knowledge?' His reply used to be 'it is because the freshmen bring in so much of it and the seniors take away so little of it'. The witty professor had, of course, said it in a lighter vein. I am sure all of you have made the most of what your college offered you and are taking away a rich treasure-trove of learnings from here. The inputs that you have gleaned as part of your studies here would surely give you the foresight to see things before the curve, much before others do.

20. Before I conclude, there are three basic messages that I always like to convey when I get to interact with students. All of you have completed your student life and would be entering into professional lives shortly. With the academic credentials that you have attained at this institution, I am sure all of you will be able to build up successful careers. My first message to all of you is to never be complacent in life, because complacency is a short cut to failure. Plan wisely during your good times so that you have enough resources to live through the bad times. My second message is that though bad times are inevitable, they are definitely not permanent. So, don't be discouraged and disheartened. Stay positive and keep on working hard and the good times will return. My third message for success in life and in your professional careers is to be information literate. Retain the curiosity to seek and assimilate knowledge and to use this knowledge for taking decisions in an unbiased manner. This will help in ensuring that the decisions you take are in your best interests and in the interest of the organizations you work for.

Conclusion

21. We live in exciting times and as you stand on the threshold of a new life – I trust you will continue to cherish the ideals and dreams of youth, after all, they are what make life worthwhile. While you must rejoice and celebrate your achievements, you must also realise the enormity of responsibility that would now be cast upon you. The knowledge and skills that you have acquired here and the values you have imbibed,

must be utilised in not only carving a niche for yourself in the professional field that you choose but also in making a difference within your homes, your society and the country. You must work with a commitment towards upholding the values that your teachers and your Alma Mater has imbued within you. This would, perhaps, be the perfect '*gurudakshina*' to your teachers and to the institution.

22. I wish all of you every success in all your future endeavours.

Thank you.

*Approach to Regulation and Supervision in the Post Crisis World**

Anand Sinha

Ms. Usha Thorat, Director, Centre for Advanced Financial Research and Learning (CAFRAL), Mr. Aristobulo de Juan, a veteran supervisor and an international consultant, Mr. Pierre Yves Thoraval, former Deputy Secretary General of the French Banking Commission, Mr. Chris Cardoza, Program Director at the Toronto Centre, Ms. Shyamala Gopinath, former Deputy Governor, Reserve Bank of India and all the esteemed delegates of the conference. It is my privilege to address you all in this conference today.

2. The Conference is quite aptly themed '*Supervisory Effectiveness in the Post Crisis World'*. The policy makers and supervisors are trying to grapple with the havoc the crisis has wreaked. So much ink has been spilt and so many reams of papers have been used in describing the what, why and how of the crisis. New regulations have replaced old ones and new theories have come to the forefront debunking the old and crisis-battered beliefs. But one question still remains. Have we really come out of the crisis and entered the *post-crisis* world? Is the crisis now a thing of the past and is it firmly behind us? It does not appear to be so. If one looks at the latest IMF update on World Economic Outlook (WEO- Jan 2013), the growth rates have been revised downwards, though marginally, to 3.5 per cent for 2013 and 4.1 per cent for 2014 and it specifically notes that the Euro area continues to pose a large downside risk to the world economy.

3. If we look at the history of financial crises, they have never been far away. The earliest recorded crisis dates back to 13th century when there was a default by England. We have had so many crises in the more recent past such as, Great Depression of 1929, stock market crash of 1987, Asian crisis of 1997, banking crises in several countries in 80s and 90s and the dot com bubble of 2000, *etc.*, the latest being the global financial crisis of 2007 and the very recent and continuing sovereign debt crisis. However, all these crises (other than the global financial crisis) have been of smaller magnitude in comparison to the great depression of 1929. The global financial crisis of 2007, certainly, is of a very large magnitude and has had a devastating impact on the global economy. As it is said of peace that it is an interlude between two wars, perhaps, looking at the regularity of crises in the recent times, one would say, a calm period is an interlude between two crises. Such has been the history of financial crises in the past.

How was the global financial crisis different?

4. If the financial history is checkered with crises, then why is it that the current global financial crisis has assumed such a gigantic proportion in terms of coverage and impact? The very famous book '*This time is Different- Eight centuries of financial folly*', suggests that all crises have, more or less, similar origins and only that we do not take cognizance of them. However, looking at the significantly large and unparalleled dimension of the current crisis, one will have to assume that there must have been other serious contributory factors. In fact, if you recollect, the crisis originated in a small segment of the US financial system- the subprime market – and many were generally sanguine and had even dismissed the crisis initially as a small and localised one which did not

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have enough potential to spread to, and impact other segments. However, the crisis soon exploded into a major crisis impacting not just the US financial system but the entire globe. Therefore, one could surely agree that there were very many fundamental weaknesses in the system which exacerbated the crisis.

5. Let me give you some details regarding the magnitude of the crisis. I am quoting from Andrew Sheng's book '*From Asian to Global Financial Crisis*' where he refers to a text message which made rounds in December 2008. *"1 year ago RBS paid USD 100 billion for ABN AMRO. Today that same amount would buy: Citibank USD 22.5 billion, Morgan Stanley USD 10.5 billion, Goldman Sachs USD 21 billion, Merrill Lynch USD 12.3 billion, Deutsche Bank USD 13 billion, Barclays USD 12.7 billion, and still have USD 8 billion change … with which you would be able to pick up GM, Ford, Chrysler and the Honda F1 Team".* This was the dimension of the crisis which shows how the valuation of banks and financial institutions plunged at the height of the crisis.

6. Economies go through business cycles, *i.e.*, upturns and downturns, or booms and recessions, and come out rather quickly but when they are hit with financial crises, they take longer to come out. History suggests that recessions following financial crises are bigger than normal recessions with output losses being 2-3 times larger and recovery from recession following financial crises being slower, as we are witnessing now. The core reason for this is the leverage that gets built up in the run-up to the crisis which acts as a drag on the economy and slows down the recovery. It is for this reason that, despite massive quantitative easing by central banks and fiscal stimuli by sovereigns, the global economy is yet to recover significantly from the global crisis.

7. The crisis has impacted the world in a major way, both financially and non-financially. While the financial impact is recorded in terms of huge output losses, increase in unemployment and erosion in wealth, the non-financial impact is no less. Crisis has shaken the very roots of long held beliefs and convictions. Just when we thought we knew all the answers, the crisis posed new questions forcing us to find out new answers. That reminds me of physics, in which I graduated and which remains my favourite subject. During the turn of the last century, physicists came to the conclusion that they had found out all that they needed to know about the laws of nature. All that remained was to apply these rules to find out answers to some of the questions. Then there were two major experiments which changed the entire scenario resulting in the development of radically different theories to explain the phenomena. Similar things have happened in the financial world – may not be of similar magnitude – that have shaken the intellectual foundations and left us groping for answers to new questions. There has been a paradigm shift in the thinking on regulatory philosophy and approach, especially in areas of systemic risk and efficient market hypothesis; on several aspects of macroeconomic thought, for example, role of monetary policy in ensuring financial stability, incorporation of banking and financial system dynamics in macroeconomic models and realising that macroeconomic stability is a necessary but not a sufficient condition for ensuring financial stability.

8. A lot of work was initiated in the aftermath of the crisis to address risks that were identified to have caused or exacerbated the crisis. The approach to regulation and supervision has changed in a significant way drawing lessons from the crisis. Before I expound on the revamped approach to regulation and supervision in the post crisis world, let me step back a little and briefly touch upon the genesis of crisis. This not only helps in putting things in perspective, but as we deliberate on the reasons underlying the crisis, the solutions would automatically flow.

The genesis

9. Several factors were responsible for the crisis. However, at the core of the crisis was the inadequate understanding and measurement of risks and funding of assets with shorter term liabilities on a large scale. There was aggressive easing of monetary policy in the US after the bursting of dotcom bubble leading to very low interest rates. The long term yields in the US were also depressed on the back of global imbalances as the huge reserves built by countries, specifically China, found their way back to the US treasuries. An era of Great Moderation followed: there was steady growth in advanced economies and accelerated growth in emerging market economies along with low and stable inflation. This resulted in policy makers believing that they had found the holy grail of high growth with low inflation. Underlying this belief was the notion that markets had become mature and sophisticated and had the wherewithal to distribute risks and provide efficient hedging instruments to those who needed. Low interest rates triggered a massive search for yield which led to financial innovation that was socially suboptimal. The innovation was aided by the progress in quantitative finance and modelling and technological developments. While we cannot disregard the utility of financial models – they are certainly very useful – overreliance on such models proved to be disastrous. The financial models, in contrast with the models used in physics, are not governed by immutable laws of nature but by the human behaviour – the herd mentality, irrational exuberance and pessimism, greed and fear, which cannot be modelled with any accuracy. Hence, these limitations need to be factored in while using the models.

10. Low interest rates prior to the crisis enabled build up of leverage. In fact, if we observe closely, leverage happens to be the major contributing factor to most crises. Let me explain in brief. When times are good, there is a feel good factor, there is plenty of liquidity which is cheap, the asset values and collateral values are high and the banking system losses are low, leading to lower provisioning and lower capital requirements. These factors lead to higher demand for credit from the households and corporates. From banks' perspective, as the provisioning and capital requirements are lower, they have surplus capital and raising of capital is also easy. This leads to a greater incentive to lend and expand the balance sheet. Therefore, the increased credit demand from the borrowers and the increased incentive to banks to lend, results in the build up of leverage. When the cycle turns, pessimism sets in, losses increase, value of assets and collaterals diminish and liquidity dries up and becomes costlier. These erode the financial health of banks, households and corporates who become risk averse. The demand for credit by households and corporates as also the supply of credit by banks slows down. Banks also deleverage to preserve their capital. All these exacerbate the downturn. Leverage is an amplifier in as much as it amplifies the profits during upturn and exacerbates losses during the downturn: higher the leverage, more severe is the downturn. This amplification is also called procyclicality. Prior to the crisis, the regulatory policies did not effectively address the systemic risks arising out of procyclicality and interconnectedness.

11. Lack of appreciation for systemic risks and the absence of suitable regulatory framework to address such risks was one of the major reasons for exacerbation of the crisis. The thinking prevailing prior to the crisis was that strong individual institutions make a strong system, which did not turn out to be true. The crisis brought home the fact that even when the institutions are individually strong, when each one of them tries to pursue and preserve their own self interest, their actions could lead to instability of the system.

12. The credit risk transfer mechanism was also highly flawed. Securitisation, which was once

considered to be a very useful financial innovation in enabling efficient transfer of risk – and I still think it is a very useful tool – was not handled properly as perverse incentives took over.

13. There were also serious gaps in the regulatory and supervisory framework and philosophy. Let me quickly go through some of the regulatory and supervisory gaps that contributed to the crisis. Most importantly, the capital maintained by banks, was inadequate both in terms of quantity as well as quality. Liquidity buffers were also insufficient as financial institutions operated on the assumption that markets would continue to provide liquidity at all times and hence they financed their long term assets with much shorter term liabilities. The outstanding Repurchase Agreements (repos) tripled between 2001 and 2007 with particularly rapid growth of overnight repos. The financial firms were also excessively leveraged, with the leverage for many commercial and investment banks significantly going up from 2003 onwards. High leverage could be built up by financial institutions while being compliant with the capital adequacy requirement, pointing to serious deficiencies in risk measurement methodologies and models. For example, two large Swiss banks, which were among the best capitalised, also came under stress during the crisis.

14. Lack of transparency in the OTC markets was another major factor which led to build up of risks in the system. Information about the position building was not available even with the regulators, leave alone the counterparties. The insurance giant, AIG wrote huge credit protection (to the tune of USD 400 billion) collecting huge premium in return, believing that it would not be required to settle claims of protection buyers. The quantum of protection sold by AIG was not known to the market participants due to which they went on buying credit protection from AIG. When the system came under severe stress and AIG was required to post higher margins, it found itself in deep trouble and had to be eventually bailed out by the Federal Reserve.

15. Burgeoning under/unregulated shadow banking system added to the forces which exacerbated the crisis. In the run up to the crisis, there was rapid growth in the shadow banking system. In the US, at the peak of credit boom, financing from this sector was much larger than that from the regulated banks. In many advanced economies including the US, the shadow banking system is still larger than the regular banking system. The hands-off approach to the shadow banking system from a regulatory perspective was based on a few assumptions and beliefs. One, the touching faith in market discipline and self regulation, – It was believed that shadow banks would be constrained by market discipline *i.e.,* discipline imposed by banks and other market participants, and also by their own self regulation. Two, it was believed that only banks were important from the financial stability perspective as they held deposits and were at the core of the payment and settlement systems. Three, it was assumed that if banks' exposure to shadow banking system was regulated, it was easy to contain risks in the shadow banking system. Four, it was also believed that regulation of shadow banking system would be very costly, reduce innovation and impede risk transfer.

16. The compensation structure in financial institutions was also seriously flawed as it encouraged perverse incentives and, therefore, was another major reason attributed for the outbreak of the crisis. Participants were paid large bonuses on the basis of short term performance even though the embedded risks could be high which would crystallise later. The compensation structure encouraged private sharing of profits while socialising the losses by taxing the exchequer.

17. The entire regulatory approach in the pre-crisis period was veering towards light touch regulation. There was a touching faith in the efficient market hypothesis which made many believe that markets are self correcting. This belief ignored the well known herd and irrational behaviour of the financial markets. If we look at any risk distribution, there are always fat tails which are on account of irrationality. The negative fat tails are due to excessive pessimism while the positive fat tails are due to exuberance.

18. As far as supervision is concerned, it had its own share of flaws in the pre-crisis period. The role of supervision is to ask questions, when things are going very well. When the financial system or individual entities are not doing well, supervisors will obviously intervene. But supervisors need to be proactive and ask questions when the going is good. It must be confessed, however, that asking questions during good times is difficult as you will be seen as a spoilsport. It is a difficult task. Supervisors have unenviable job on hand. With commercial banks having some smart people, regulators need to be smarter to question them and that is where the issues of skills and technology come in. In the run-up to the crisis, it was observed that the supervisors were staying on the sidelines and not intruding sufficiently into the affairs of participants. They were not being proactive in dealing with the emerging risks and in adapting to changing environment. There was a lack of capacity to identify, or to act on identification. For example, supervisors could not see the risks building up when banks started dealing in very complex products or when banks started relying excessively on short term funding sources for their operations. Supervision was not comprehensive and even when supervisors found some anomaly, it was not taken to conclusion.

19. The effect of crisis on India was, however, relatively muted, as there was no direct exposure to sub-prime assets and the indirect exposure to failed institutions and stressed assets was very small. The Indian growth was largely driven from within based on domestic demand and, more importantly, some of the features of macroprudential regulations were already in place. We have been alert to dealing with systemic risks, both procyclicality and interconnectedness, at least 4-5 years prior to the global crisis. We had also put in place robust OTC market infrastructure and central counterparty mechanisms. We were lucky to have put in place some of the regulations, based on our own perception, that have now been designed internationally. The approach to these issues today is, however, much more structured.

Review of regulatory framework

20. After giving you a background of what caused the crisis, let me now turn to the reforms in regulation put in place globally, drawing lessons from the crisis. Every weakness and flaw that I have mentioned has been tried to be corrected. The Basel III regulations stipulate enhanced quality and quantity of capital. The component of tier I capital as part of total capital has been raised to 6 per cent (out of total 8 per cent CRAR), requirement of equity capital has been raised very substantially to 7 per cent (including 2.5 per cent of capital conservation buffer) from the earlier 2 per cent. There was no concept of capital conservation buffer earlier, though there is something similar in pillar II of Basel II. Pillar II deals with two kinds of risks: (a) the pillar I risks which are not covered under pillar I such as concentration risk and interest rate risk in the banking book, and (b) the impact of a stress situation on banks and estimation of additional capital required for banks to withstand the stress.

21. During the crisis, it was observed that the losses in the trading books of banks were several times the losses as computed by the VaR models. As regards the counter party credit risk, it was found that most losses arose from the mark to market losses due to

deterioration in the credit quality of the counterparties rather than due to outright default. The Basel III regulations have, therefore, expanded the risk coverage, specially, in the trading book and of risks relating to counterparties.

22. As regards liquidity, a global framework has been built for the first time in several years, both in terms of the requirement for banks to have adequate high quality liquid assets to withstand a stress situation over a 30 day horizon and also from the perspective of avoiding asset liability mismatch by requiring banks to fund long term assets with stable funds.

23. In my view, the most important lesson from the crisis is the recognition of systemic risks and the development of a framework to deal with that. I would touch upon these issues briefly, as there is a full session on systemic risk during the course of your conference. Systemic risk has two dimensions – procyclicality that I have explained a little earlier, and interconnectedness. One interesting feature of interconnectedness which is different from knockout effect (impact from one interconnected institution to others in the system), is that it can play simultaneously, or near simultaneously on a large number of institutions through common exposures to an asset or an asset class. For example, if multiple institutions have exposure to an asset and if one of the institutions begins a fire sale of the asset, say, due to a temporary liquidity stress, the consequent fall in the asset prices would force other participants, who are otherwise liquid and solvent, to sell that asset to avoid mark to market losses. This would lead to further erosion in the value of that asset resulting in further losses and more fire sales. Therefore, the rational actions of individual institutions to preserve their self interest could turn out to be a collectively irrational action.

24. As regards procyclicality, since banks face large losses which crystallise during downturn, they have to make larger provisions and provide additional capital. This would constrain their lending activities which in turn would have an adverse impact on economic recovery. Basel committee has, therefore, prescribed building up of countercyclical capital buffers. Banks are expected to build capital buffers during the upturn which could be used during downturn so as to maintain their lending activities which would cushion the impact of a downturn on the economy.

25. Basel Committee has suggested 'credit to GDP' ratio as a metric to calibrate countercyclical capital buffers. The model assumes that deviation from the trend is cyclical and hence should trigger buildup (or release) of buffers. While this model could work for advanced economies, it may not work effectively for emerging market economies like India since, in our context, the deviation in the 'credit to GDP' ratio may not only be cyclical but may have large structural components. EMEs have large segments of population which are still financially excluded. Financial inclusion initiatives which are being taken in these economies would bring a large segment of such populace into formal banking fold, which would result in a sharp jump in the credit to GDP ratio, which could be misinterpreted as cyclical deviation. Further, especially in India, we had taken a big leap in transforming from an agrarian economy to a service oriented economy. With the current initiatives to invigorate manufacturing and infrastructure sectors which are highly credit intensive and are employment generating, the credit to GDP ratio would show a sharp spurt, not necessarily indicating any cyclical trend. We have been, therefore, following a sectoral approach, as a countercyclical policy, modulating risk weights and provisioning requirements for certain sensitive sectors which show signs of overheating. Our approach has been fairly successful, though not equally well in all the sectors that we targetted. While the Basel Committee has not

considered the sectoral approach, the Bank of England has considered it as one of the tools in formulation of its macroprudential policies. In the foreseeable future, the Reserve Bank, in all likelihood, would continue to follow the sectoral approach for dealing with procyclicality. This deviation from the prescribed methodology would be permissible within the Basel Committee's 'comply or explain' framework. However, the downside here is that the deviation from the laid down methodology may be interpreted by markets as non-compliance. To guard against this, we will have to improve and sharpen our communication.

26. Building up of provisioning buffer during good times based on expected loss methodology to deal with procyclicality is another important regulatory construct under Basel III. However, the progress in this area has been very slow and it is still work in progress. As an interim measure, we propose to implement a provisioning methodology similar to the Spanish 'dynamic provisioning', shortly.

27. The countercyclical policies assume a lot of importance, more so for developing countries like India because of the economic conditions of these countries. While the gains from growth take longer time to percolate to all strata of the society, the pains of instability permeate and percolate immediately. Also, costs, in terms of increase in poverty are higher if output falls, than the gains from reduction in poverty for an equivalent rise in output. Financial stability, therefore, assumes great importance for emerging markets. Perhaps this is the reason why macroprudential policies have been practiced in EMEs well before the advent of crisis while the advanced economies have only now begun to practice these policies in the wake of Basel III regulations. I would also like to mention here that while the Reserve Bank is complimented for steering the country safely out of the crisis, it is also, often considered to be very cautious. I believe that we cannot afford to be less cautious as we do not have the wherewithal to sustain or absorb the high costs of misadventure. That is the reason why we became alert and started implementing countercyclical policies much before the onset of the crisis and do not encourage use of exotic financial products.

28. To deal with the cross sectional dimension of systemic risk, *i.e.,* the issue of interconnectedness, the Systemically Important Financial Institutions (SIFIs) have been brought into focus. Global Systemically Important Financial Institutions (G-SIFIs) and Domestic Systemically Important Financial Institutions (D-SIFIs) are the entities that could potentially create larger negative externalities to the financial system if they were to get into trouble and fail. Therefore, it is necessary to stipulate greater loss absorbency for these entities, subject them to more intense supervision and put in place stronger resolution regime. SIFIs are identified based on a metric which takes into account factors such as their global activity, their size, interconnectedness with other segments of the system, their substitutability and the complexity of their operations. G-SIFIs have to maintain additional capital in a range of 1 per cent to 2.5 per cent depending upon their systemiticity. The reason for stipulating higher capital is twofold. One, the higher loss absorption capacity would reduce the probability of G-SIFI's failure and in the event of their failure, reduce the impact of their failure. Second, higher capital requirements would act as an inbuilt incentive for G-SIFIs to reduce their systemiticity. The framework for D-SIFIs is similar but less structured and with larger national discretion.

29. For any regulatory regime to be effective, robust supervisory framework is absolutely necessary. Increasing the intensity and effectiveness of supervision for SIFIs in particular is a key component for reducing the moral hazard and negative externalities posed by these institutions. Towards this, the Basel Core Principles (BCPs) on Effective Supervision- the global standards against which supervisors are

assessed as part of the IMF-World Bank Financial Sector Assessment Program (FSAP) – have been recently revamped. The Joint Forum has published Principles for supervision of financial conglomerates. Several other issues *i.e.* model risk, management, enhanced scrutiny of Boards and senior management, more emphasis on adoption of strong controls by SIFIs, horizontal review, stress testing, supervisory colleges, macroprudential surveillance and examination of risks associated with business models are being addressed.

30. Resolution framework for SIFIs is another critical aspect that is under development. A robust resolution framework needs to be put in place with a view not to burden the Government with the task of bailing out large and systemically important institutions, if they were to fail. A well defined resolution regime enables separation and continuation of core activities from non-core activities followed by an orderly resolution. In this context you must have heard of living wills. FSB is also consulting on guidance on recovery and resolution planning for making operational the *'Key attributes of effective resolution regimes for financial institutions'* which it has published earlier. In the US, under the Dodd-Frank Act, an orderly resolution framework has been put in place.

31. There is also a serious debate on revamping the banking models especially in the context of concerns regarding systemically important and complex institutions. There is an increasing realisation that the retail part of the banking system, which offers core services to the people in terms of deposits and retail credit, should remain safe. There are three well known reports in this regard; Vickers' report in the UK proposes ring fencing the retail business from the investment banking activities. The Volker rule under the Dodd-Frank Act in the US proposes restrictions on proprietary trading with some exceptions and puts limitations on banks sponsoring Hedge funds, Venture Capital funds and Private Equity funds. A recent addition is the Liikanen report for the Euro zone which is on somewhat similar lines.

32. The need to provide oversight to the shadow banking system is another major lesson from the crisis. The shadow banking system grew phenomenally in the run-up to the crisis and overshadowed the regular banking system in many jurisdictions. The risks originated in the lightly, or unregulated shadow banking system, spread to the regular banking system and exacerbated the crisis. Oversight/regulation of shadow banking system was, however, not immediately taken up by the Basel committee as the Committee was preoccupied with the work related to banking regulation which itself was very onerous. With the work regarding revamping of banking regulations largely complete, the FSB and the Basel committee have now focused on putting in place a robust framework for oversight/regulation of the shadow banking system. Improving the oversight/regulation of the shadow banking system assumes all the more importance with the tightening of banking regulations as the widened regulatory gap between the two systems would lend a scope to increased regulatory arbitrage with risks flowing from the more regulated banking system to the less regulated shadow banking system.

33. Regulating shadow banks poses a dilemma. It may not be appropriate to impose bank like regulation on them as it may stifle flexibility and innovation which the sector is known for. At the same time, having widely divergent approach towards this sector which performs bank like credit intermediation would create huge arbitrage opportunities and give rise to systemic risks. There is a two pronged approach that is recommended in this regard: casting the net wide to gather data on all non-bank credit intermediation activities and then narrowing the focus on those non-bank credit intermediaries that have the capacity to pose systemic risk on account of maturity/liquidity transformation and leverage. There are broadly four

graded approaches for oversight/regulation of credit intermediaries. One, indirect approach which involves regulating banks' exposure to shadow banking system. Second, a direct approach where macroprudential measures are taken to address risks in securities lending and repo transactions. The third approach is regulation of shadow banking activities through disclosure obligations and restrictions on activities and the fourth approach is the regulation of shadow banking entities, *i.e.,* imposing bank like regulation on these entities, limiting maturity transformation and leverage. FSB has published the '*Initial Integrated set of recommendations to strengthen oversight and regulation of shadow banking*' and the related responses received. When the final standards are brought out, which is likely in the near future, countries will have to take cognizance of that and build their systems for dealing with shadow banks.

34. In India, about 50 per cent of the shadow banking system consists of Non-Banking Financial Companies (NBFC) which is regulated by the Reserve Bank. The other components largely include insurance and mutual fund participants which are regulated by other regulators *i.e.,* IRDA and SEBI respectively. The regulation of the NBFC sector has been progressively tightened over time. Initially, the regulatory focus was confined to deposit taking NBFCs. But in 2005-06, the focus shifted to non-deposit taking NBFCs which are systemically important due to their interconnectedness. The regulatory regime for such NBFCs was made significantly vigorous. We believe that the tighter regulation of NBFC sector did stand us in good stead during the crisis though it is difficult to argue counterfactually.

35. Improving transparency in the OTC market, standardisation of OTC products and their migration to Central Counter Parties (CCPs) to contain the risk of interconnectedness are major reform agendas. The criticism of this initiative is that by migrating OTC products to CCPs, there is a possibility of warehousing all risks in a few entities leading to systemic risk buildup and adding more 'too important to fail' entities. There is also a serious debate over whether the CCPs that have become systemically important need to be provided central bank liquidity support. While there are strong arguments for providing such facilities to them given their criticality in the financial system, the issue of moral hazard needs to be adequately addressed while providing such support. There are also quite a few areas where work is in progress such as counterparty credit risk, capital for exposures to CCPs, *etc.*

Some dilemmas and debates

36. Having given a broad overview of regulatory reforms, let me now touch upon some of the concerns, misgivings and apprehensions over the implementation of new regulations. The most important concern relates to the adverse impact of higher capital requirements on growth, more so in the case of EMEs. This is a very valid concern. As the capital requirements go up, the cost of operations would increase because equity is costlier. Banks can react to this situation in many ways and in various combinations. They may sell off non-core businesses, reduce their balance sheet by selling off assets, reduce lending operations and increase the cost of lending, *etc.* Some banks may enhance their operational efficiency and improve their competitiveness by absorbing the higher cost of capital. But most likely, the reaction by the majority of banks would be to cut down on lending and increase the lending rates which would adversely impact economic growth.

37. The Basel Committee had set up a Macroeconomic Assessment Group (MAG) to assess the impact of regulations on growth. The Group after an extensive study involving about 100 simulations had concluded that if Basel III requirements are implemented over a

longer period of time (35 quarters), the impact on growth would be minimal (0.03 per cent per annum below its baseline level during this period) and there would be recovery in growth towards baseline after this period. This is considered to be affordable because the long term benefits of stability will far outweigh the costs of instability. That is the reason why the implementation period is so long (6 years).

38. Let me now turn to a few structural issues. One issue that is being debated is the optimal level of financial activity. We found that, prior to the crisis the financial world had acquired a life of its own, dissociated from the real sector. There was too much of complexity. The lessons from the crisis emphatically point to the fact that finance should serve the needs of the real sector and be subservient to the needs of real economy. There have also been concerted efforts to reduce the complexity of financial products. One such measure is the moving of OTC products to exchanges by standardising them and settling them through central counterparties (CCPs). While there would always be a place for customised (OTC) products, regulators and supervisors will have to ensure that these products do not become unduly complex.

39. There is another line of research that is gaining prominence in the recent times. The issue is whether too much of finance is good for growth. Recent analysis shows that at low levels a larger financial system goes hand in hand with higher productivity growth but there comes a point where more banking and more credit are associated with lower growth. This happens essentially due to the diversion of resources- physical and human- away from the real sector to the financial sector.

40. Another issue relates to the dilemma whether we need larger banks. The lesson from the crisis is that very large institutions (SIFIs) pose significant risks to the financial system. But some argue that to remain competitive, banks need to grow larger to achieve the benefits of economies of scale and scope. Therefore, the question is of the optimal size a financial institution should be allowed to grow to. How large is really large? I do not think anyone has a categorical answer to that. One alternative could be to focus not on size but on the structure of the institutions and discourage complex structures. The problem I find with the metric used for measuring the systemiticity of financial institutions is that it is not an absolute metric but a relative metric. It calculates the systemiticity of a bank in relation to the global sum of various metrics. In this relative approach, there is always a possibility that a bank, despite growing rapidly, and becoming riskier, might escape the SIFI regulation, if the entire banking system also becomes riskier due to which its 'score' remains unchanged. I must add that the methodology devised by the Basel Committee is the best available at the moment. To take care of the developments in the banking system, such as the one I have mentioned, the methodology provides for periodic review every three years. However, having a metric that computes systemiticity as an absolute measure would be much better and is an area that needs further research.

41. The role of monetary policy in dealing with asset bubbles is another actively debated issue. Earlier the prevailing notion was that monetary policy neither had the mandate nor the ability to contain asset bubbles. All that it was expected to do was to mop up the debris after the bubble burst. But post crisis, there is an increasing consensus that monetary policy does have a more symmetric role in dealing with asset bubbles and it must work in tandem with the macro prudential policies for ensuring financial stability. Since both monetary policy and the macroprudential policies work towards ensuring similar outcomes and they both affect the same variables, *i.e.*, the volume of credit and the price of credit, the cost to the economy

would be higher, if both the policies were to work at cross purposes with each other. Pure inflation targetting which was the prevailing orthodoxy prior to the crisis is getting modified and now it is accepted by many that pure inflation targetting is not the ideal approach in the context of financial stability. The debate, however, by no means, is fully settled.

42. Another question that crops up in this context is that who should have the mandate for financial stability. Should it be the central bank or should it be the government or should it be an independent outside agency. Post crisis, several models have evolved and most of them are collegial, with participation from the central bank, the government and other regulators. There is another view that supports vesting the financial stability responsibility with central banks. This is the case with some countries, for example, UK and Malaysia. The reasons are not very difficult to see. As I mentioned earlier, monetary policy and macroprudential policies need to work in tandem to ensure financial stability. Monetary policy is the domain of central banks. Further, central banks, by virtue of their mandate for conducting monetary policy, have a handle on macro economy and financial markets. Central banks have fair knowledge of the financial institutions also to a large extent, even in cases where they are the not the regulators and supervisors. Therefore, Central banks appear to be the ideal choice for ensuring financial stability or at least play a vital role in a collegial approach.

43. Unlike inflation targeting where a single number is fixed to measure the effectiveness of the policies, there is no such thing in macroprudential policies. The success of the macroprudential policies cannot be established based on counterfactuals. Therefore, to ensure proper accountability, a clear communication of objectives and methodology for fixing accountability is extremely necessary.

44. As regards liquidity risk, while the framework for Liquidity Coverage Ratio is in place, there are issues regarding interaction between LCR and monetary policy. These issues are being examined.

45. The implementation of Basel III itself is generating a debate. It was earlier planned to be implemented from 1st January 2013. Though our financial year commences on 1st April, for the sake of converging our implementation schedule with the international schedule, we had proposed to implement it effective 1st January 2013. But the two most important jurisdictions *viz.*, the US and the Euro zone that are expected to be in the forefront in implementing Basel III, could not adhere to the schedule. We have, therefore, shifted our implementation date to April 1, 2013 which suits us better. I feel that for smoother implementation of Basel III, it would be helpful if the US and the Eurozone could announce a firm date for commencement of implementation with no change in the final date of implementation, *i.e.,* December 31, 2018.

46. The increasing complexity of regulations has raised an interesting debate as to whether more complex regulations are necessarily more effective and whether they achieve their regulatory objectives. There is an interesting paper by Andrew Haldane, Executive Director of Bank of England, ' *The Dog and the Frisbee*' which makes the point that the increasing complexity of regulations is actually counterproductive. He has argued that simple leverage ratio has been a more effective predictor of stress in the system during the crisis than the complex risk weighting system and therefore simple risk measures should be preferred over complex measures for regulatory purposes. Another problem with risk weighting is that similar or identical portfolios are found to show very divergent capital requirements reflecting the fallibility of risk models. My personal view in this regard is that since financial systems have become very complex, simple

risk measures may not suffice. Further, no single metric would be sufficient as it would likely be gamed. My conjecture is that if the evidence shows that the simple leverage ratio was a more effective predictor of stress in banks, it could, perhaps, be because it was not a closely watched metric. The moment regulations are built around one metric, there would be incentive to game it. Further, the downside of simple leverage ratio is that there would be strong incentive for banks to have riskier portfolios for a given amount of capital. The solution, therefore, would lie in combining the leverage ratio with risk based measures and making the models more robust and transparent.

47. Consolidation is another issue that is extremely important but has not received adequate focus so far. Specifically, while dealing with SIFIs, a consolidated/ group based approach is adopted to assess the overall risk but the crisis has shown that laws relating to consolidation have been inadequate. In most jurisdictions, consolidation is based on accounting rules and the accounting rules need not be the best solution for prudential requirements. Based on the lesson from crisis, there was a need to better align the accounting rules for consolidation with the prudential objectives. In fact, the IASB has revised the consolidation standards through IFRS 10. Even though IFRS 10 has been introduced, much work needs to be done from a prudential perspective framing consistent consolidation guidelines. Let me briefly touch upon major changes in the new accounting guidelines related to consolidation. The definition of control has been redefined in the revised accounting guidelines. So far, control was being largely defined in terms of having more than 50 per cent of voting power through equity holdings or otherwise. In IFRS 10, control is defined from a different perspective in recognising the possibility that even an investor holding less than a majority of the voting rights could have control. Illustratively, IFRS 10 recognises a situation where an investor with less than a majority of voting rights may have the practical ability to direct the relevant activities of the investee unilaterally if the size of his/her vote-holding is *relatively large* in comparison to the other vote-holders and the vote-holding of the others is so widely dispersed that several of them would need to act together to outvote this investor.

48. Large exposures is another important area where Basel committee has set up a working group. The regulatory practices regarding large exposures are quite divergent. For example, many jurisdictions allow for collateral adjustment while computing the exposure while others, including India do not. The exposure limits also vary considerably. There is a need to set standards.

49. Let me now deliberate on supervision and the recent thinking and changes in this area. Supervision has to be central to any effort to make the financial system safer and has to be effective for any regulatory initiative to succeed. Writing rules (regulation) is tough, but it is tougher to make the financial institutions adhere to those rules, for which a very effective supervisory mechanism is needed. What are the important components of effective supervision? Let me quote from an IMF Staff Position Note[1] which very lucidly explains the attributes of effective supervision. Good supervision has to be intrusive. As I mentioned earlier, supervisors need to ask the right questions when the going is good. Good supervision has to be skeptical but proactive, implying that the supervisor should not take things for granted. Good supervision is comprehensive: while dealing with a bank, supervisors need to look holistically at the group level. Good supervision is adaptive: as the financial system is very dynamic and fast moving and innovations happen all the time, supervisors need to be alert to

1 The making of good supervision: Learning to say 'No'; Jose Vinals and Jonathan Fiechter, IMF Staff Position Note, SPN/10/08.

the developments and be updated. Good supervision is conclusive: supervisors need to take their findings to logical conclusion through further probing or deliberations and discussions. On top of these attributes, the IMF note mentions two features that signify good supervision. One, the ability to act and second, the will to act. Ability to act is based on the legal authority and the necessary resources both in numbers as well as quality. Availability of skills is an extremely important factor. This requires an efficient HR planning in terms of skill building and good compensation policies. Ability to act also hinges on effective working relationships with other regulators especially for supervising entities that have cross border presence. The willingness to act, on the other hand, hinges on factors such as a clear and unambiguous mandate, operational independence, accountability, a healthy relationship with the industry, *etc.*

50. The other actively debated issue about supervision is whether it should be vested with the central bank. Different jurisdictions have different practices. There are jurisdictions where supervision is the sole responsibility of Central bank, while there are other jurisdictions where the responsibility is shared among multiple agencies and in some other cases, supervision is fully outside of central bank. FSA model which was based on unified approach to supervision outside of central bank gained a lot of respectability in the period prior to crisis. However, our own experience and the experience gained during the crisis have driven home the point that there is a lot of merit in vesting the supervisory responsibility for the banking system in the central bank. The carving out of Prudential Regulatory Authority (PRA) from the FSA in UK and the PRA becoming a subsidiary of the Bank of England is a case in point.

51. Post crisis, there has been a shift towards risk based supervision (RBS) away from the erstwhile CAMELS approach. CAMELS is essentially a scorecard based approach which is more of a backward looking methodology and transaction testing model operating with a lag. The RBS, on the other hand, is a forward looking approach inasmuch as it assesses the risk buildup in banks. RBS also enables conservation of supervisory resources. I am a votary of a combined approach. I feel that even while following the CAMELS approach, the distribution of risk and its direction should be assessed which would result in a more comprehensive assessment of banks. Under the RBS, supervisors essentially rely on the inputs provided by banks' risk management systems. Therefore, the RBS can only be as effective as banks' risk management systems. The RBS can be supplemented by thematic assessments which can address risks arising through common exposures and common causes. Supervisory methodology is under considerable focus and it needs to be constantly evaluated and improved upon to make the financial system safer as only framing regulations will not suffice.

52. Lastly, let me mention the importance of stress testing. The risk models have their own limitations, due to behavioural aspects, as I have mentioned earlier. Stress testing is an important risk management tool to enable the supervisors to know what happens in the tails.

53. I would end my address by a quote I came across recently '*In every crisis there is a message. Crises are nature's way of forcing change-breaking down old structures, shaking loose negative habits so that something new and better can take their place*'[2]. Let us carry the message and lessons offered by crisis and move forward in building a more robust and resilient financial system.

Thank you.

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[2] Susan L. Taylor

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*Governance in Banks and Financial Institutions**

Anand Sinha

Shri Deosthalee and senior management of L & T. A very good evening. I deem it a privilege to address you this evening on '*Governance in banks and financial institutions*'.

2. Governance issues have been engaging the attention of policy makers, more intensely in the aftermath of the global financial crisis. Many instances of governance failures have come to the fore as the contributory factors that had exacerbated the crisis. With lessons learnt from the crisis, the framework is being revisited so as to strengthen the governance standards.

What is Governance?

3. What exactly is Governance? Governance, in general terms, means the process of decision making and the process by which decisions are implemented (or not implemented)[1], involving multiple actors. Good governance is one which is accountable, transparent, responsive, equitable and inclusive, effective and efficient, participatory and which is consensus oriented and which follows the rule of law.

4. The 1992 Report of the Committee on the Financial Aspects of Corporate Governance (Cadbury Report) describes corporate governance as the system by which companies are directed and controlled. As per Organisation for Economic Cooperation and Development (OECD), Corporate Governance involves[2] '*a set of relationships between a company's management, its board, its shareholders and other stake holders. Corporate Governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined. Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders and should facilitate effective monitoring. The presence of an effective corporate governance system, within an individual company or group and across an economy as a whole, helps to provide a degree of confidence that is necessary for the proper functioning of a market economy.*'

5. The whole gamut of corporate governance could be considered as a blend of various segments[3] namely, regulatory governance, market governance, stake holder governance and internal governance. For an economy to perform well and for the financial system to be stable, good corporate governance would be required across all these segments. Regulatory governance refers to control exercised by regulators over firms through statutes, policies and regulations. Market governance denotes the use of market-based controls which discipline the corporate behaviour. While stakeholder governance alludes to the direct or indirect control by various stakeholder groups having direct or indirect interest in the corporations, internal governance refers to the institutional arrangement of checks and balances within the corporation.

Why is corporate governance important for financial institutions?

6. While good governance is essential for any entity, it has deeper significance for financial institutions. There are many compelling reasons, some of which are:

a. Financial institutions are central to economic activity – banks and a large part of the non-

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1 United Nations Economic and Social Commission for Asia and the Pacific, '*What is good governance*'.

2 OECD Principles of Corporate Governance(2004).

3 Sun, Willian, Stewart, Jim and Pollard, David; '*A systemic failure of corporate governance: Lessons from the on-going financial crisis*'.

banking financial system (the shadow banking system) undertake credit intermediation. Failures of financial institutions would thus impede the economic growth and would cause serious damage to the system. Economies take longer time to rebound from financial crisis than the business cycle recessions.

b. Financial institutions operate on a higher leverage. As per a study by the Bank for International Settlement (BIS) for the period 1995-2009, compared to non-financial institutions that had a leverage of about 3, banks operated at a leverage of 18.3 while non-bank financial firms had a leverage of 12.1. Higher leverage makes financial intermediaries more vulnerable to shocks. From a systemic perspective, the inherent procyclicality of the financial system leads to the build up of high leverage during upturn phase of the economy which amplifies booms and busts. Therefore, while the procyclicality issues need to be dealt with from a financial stability perspective, it is apparent that these financial institutions must be well governed for achieving financial stability.

c. Financial institutions, especially banks, deal in people's savings and trust of customers forms the cornerstone of their existence. Any breach of trust leading to loss of confidence is bound to lead to a *run*, not just on a particular bank but on others too who are perceived to have weakness or even similar business models. The non-bank financial intermediaries who lose the trust of their lenders would not be able to raise resources at a reasonable cost making it hard for them to operate efficiently and profitably. All these can lead to snowballing effect impairing the functioning of the entire financial system due to interconnectedness. Good governance ensures customers' and other stakeholders' trust in banks and non-banking financial intermediaries.

d. Among the financial intermediaries, banks occupy a special place due to their centrality in the transmission of monetary policy and the functioning of the payment and settlement systems. They also are the beneficiaries of deposit insurance which may weaken their incentive for strong management monitoring as well as monitoring by other stakeholders including depositors. Good corporate governance would ensure strong internal controls which would offset the weakened incentive for monitoring. A robust and stable banking system is an absolute necessity for a well functioning economy.

Corporate Governance – International Experience

7. Academic literature suggests that post-2000, significant developments happened in the corporate governance framework internationally. For example, in the US, corporate scandals including Enron and World Com resulting from failure in corporate governance, led to Sarbanes–Oxley Act with an aim to improving the accuracy and reliability of corporate disclosures by way of enhanced oversight role of Boards, corporate responsibility, certification of accuracy of financial transactions by Top Management, setting standards for auditor independence, *etc.*

8. However, it is widely acknowledged that even the enhanced framework could not mitigate the weaknesses which played a significant role in contributing to the global financial crisis (GFC). There are ongoing debates regarding the manner in which flawed governance practices played their part in the crisis. While poor implementation is blamed by some, systemic failure of corporate governance is attributed by others as the cause. OECD and UK Financial Regulatory Council share the view that the shortcomings were not with the Corporate Governance codes/principles *per se*, but were in their implementation.

Governance and Ethics

9. Lack of ethics too played a significant part in the erosion of governance standards in institutions. Values and culture define ethics. Ethics are principles that recommend proper conduct, help distinguish right from wrong and drive people to do the right thing even when no one is looking. While ethical behaviour is a minimum requirement for any dealing or transaction, it becomes all the more essential for financial intermediaries, and particularly for banks, for whom trust is the cornerstone. Honest and prudent behaviour by banks and other financial intermediaries is integral to their reputation and public confidence in the system.

10. However, the conduct of financial institutions that caused the crisis does not suggest any measure of enduring interaction between ethics and banking. In fact, financial markets and entities displayed significant moral bankruptcy through the period spanning pre-crisis, crisis year and beyond.

11. Some of the recent high profile events have emphatically highlighted the complete lack of ethics in some financial institutions. London interbank offered rate (LIBOR) rigging episode wherein a few financial institutions colluded in rigging the LIBOR so as to profit from the trades or to give an inflated impression about their creditworthiness shook the world. LIBOR is one of the most important interest rates and is used for pricing of about US$ 800 trillion worth of financial instruments (reportedly 11 times the GDPs of all nations on earth). There are several such episodes.

12. Closer home too, in India, we have witnessed a few high profile cases which have shaken the public trust in the financial system. Satyam, once regarded as having good corporate governance, was found to have been deeply involved in one of India's biggest corporate frauds. The 1992 securities scam which brought out the nexus between bankers and brokers led to massive overhaul of the financial system in India. The unethical practices adopted by some banks in recent past in selling inappropriate financial products (exotic derivatives) to their corporate customers and the unfair and unscrupulous methods adopted by some microfinance institutions (MFIs) in their operations are some recent reminders of erosion of ethics in the financial system.

Causes of governance failure

13. A systemic failure of corporate governance means the failure of the whole set of regulatory, market, stakeholder and internal governance, which has largely contributed to the on-going financial crisis[4].

a. *Regulatory governance failure*: The regulatory framework in the pre-crisis period was veering more towards deregulation and liberalisation. The Chinese wall that separated investment banking from retail banking was brought down with the repeal of Glass-Steagall Act of 1933 which led to the proliferation of universal banks. While this enabled the institutions to achieve economies of scale and scope, it also led to transmission of risks of investment banking into retail banking. The exemption from regulation of OTC derivatives enabled by the passage of Commodity Futures Modernisation Act 2000 is alleged to have encouraged excessive trading in Credit Default Swaps which were an important feature of the global crisis. Other regulatory dispensations such as permitting banks to move massive amounts of assets and liabilities off balance sheet through structured investment vehicles also fuelled the crisis. Further, the regulatory gaps which led to proliferation of shadow banking entities have also been significantly instrumental in exacerbating the crisis. There were lapses in the supervisory framework also. In the run-up to the crisis, it was observed that the supervisors were staying on the sidelines and not intruding sufficiently into the affairs

[4] Sun, Willian, Stewart, Jim and Pollard, David; '*A systemic failure of corporate governance: Lessons from the on-going financial crisis*'.

of participants. They were not being proactive in dealing with the emerging risks and in adapting to changing environment. There was a lack of capacity to identify, or to act on identification. For example, supervisors could not see the risks building up when banks started dealing in very complex products or when banks started relying excessively on short term funding sources for their operations. Supervision was not comprehensive and even when supervisors found some anomaly, it was not taken to conclusion.

b. *Market Governance failure*: The prevailing dogma prior to the crisis was that markets were always right and will find their own balance, left to themselves. There was unflinching faith in the invisible hand of markets, despite the well known fat tails in statistical distributions representing herd behaviour of markets signifying irrationality driven by excessive optimism or pessimism. However, the crisis established that markets are indeed fallible. As observed by Joseph E. Stiglitz, a Nobel laureate in economics, when information is imperfect, markets do not often work well and information imperfections are central in finance.

c. *Stakeholder governance failure*: The crisis has also highlighted the failure on the part of various stakeholders who did not have active involvement in corporate governance.

d. *Internal Governance failure*: It is observed that the lapses in internal systems and controls such as Board oversight, managerial competence, compensation policies, audit *etc.* were instrumental in exacerbating the crisis.

14. Let me now briefly touch upon some of the specific internal governance failures in the financial institutions that have contributed to and/or exacerbated the crisis.

a. *Complex and opaque organisational structures*: There was a massive growth in the complexity of organisational structures in the pre-crisis period, with a view to taking advantage of regulatory arbitrage and also of gaps in regulations. Regulators found it difficult to look through the structures and enforce regulation. Many times, such complex structures fell in the gaps between regulatory jurisdictions and escaped regulations.

b. *Inadequate Oversight by Board*: Boards were found to be not actively involved in formulating risk appetite framework of firms. Incomplete risk information due to gaps in MIS coupled with inadequate understanding of risk due to the lack of expertise among the directors, hampered effective and timely decision making. Improper pricing of risk led to suboptimal allocation of capital and inadequate preparation for the tail events eventually leading to the precipitation of the crisis.

c. *Weaknesses in the Senior Management:* Senior management failed to adopt and integrate necessary systems to identify, manage and report risk. The misalignment of incentives also resulted in the management pursuing objectives which, at times, were at cross purposes to those of the firm.

d. *Proliferation of complex products*: There was a significant spurt in the complexity of financial products in the run-up to the crisis. Abundance of cheap liquidity prodded the participants to innovate ways to deploy the funds and earn a return. Complexity and opacity led to inadequate understanding and mispricing of risk. The long chain of transactions also obfuscated the true risks inherent in the transactions and led to a false sense of comfort.

e. *Flawed remuneration policies:* Compensation structures which focussed excessively on short term performance incentivised managers to take excessive risks in order to meet the short term objectives at the expense of long term sustainability of the firm. Further, the framework where the participants get to keep the gains while the losses are assured to be borne by the society (either explicitly by the government guarantee or implicitly due to the inevitable governments' intervention to bail out due to systemic concerns), was an incentive for participants to take-up risky activities. Equity incentives, put in place with the objective to align managers' incentives with those of shareholders, may also have induced managers to take excessive risks.

f. *Weak risk management systems and internal controls:* With significant developments in technology, risk management in the run up to the crisis became highly quantitative on the lines of an exact science. Models proliferated with a false assurance to capture and measure every kind of risk. It is said that economists suffered from a syndrome of Physics *envy.* The models tried to anticipate the future based on assumptions of normality and on the basis of past data. In their exuberance, quants, however, forgot that the assumption of normality does not correspond to reality, particularly, in highly stressed situations. For example, the probability of a 5-sigma loss on any given day would mean that such an occurrence should happen once in about 14,000 years (assuming 250 trading days in a year) that is much longer than the period of time that has elapsed since civilisation evolved[5]. During the crisis the Wall Street Journal (2007) reported that events that models predicted would happen only once in 10,000 years, happened everyday for 3 days. Further, the assumption, or rather the dogma, which was the basis of many models, that future could be predicted on the basis of past data, led to disastrous outcomes. With the rapid development of technology, increased integration of markets and entry of sophisticated players, the present and the future are much different from the past and it would be very naïve to predict the future based on the past data.

g. *Inadequate emphasis on financial literacy and consumer protection:* While the complexity of financial products was increasing, inadequate attention was paid to imparting financial education to the public. Financial literacy would not only to enable customers to make use of the available products but, more importantly, help them understand the inherent risks in the products and to guard themselves if the financial institutions indulged in mis-selling and other unfair practices.

International initiatives in strengthening corporate governance

15. Global crisis has highlighted the significance of good corporate governance for the survival and well functioning of financial institutions. The Senior Supervisors' Group's Report '*Observations on Risk Management Practices during the Recent Market Turbulence*' (March 2008) confirms that the financial institutions which survived the crisis better were those who had, among others, informative and responsive risk measurement and management reporting and practices. The blend of qualitative and quantitative analysis provided a high level of insight and consistent communication to management of evolving conditions, enabling the firm to respond effectively to emerging opportunities and risks.

5 Dowd, Kevin and Hutchinson, Martin, '*Alchemists of Loss*', Times Group Books.

16. With lessons drawn from the crisis, policy makers have revisited the extant corporate governance framework and have issued guidance with a view to addressing the gaps witnessed and strengthening the governance framework. The OECD Steering Group on Corporate Governance, which examined the governance failures, observed that while the corporate governance weaknesses in remuneration, risk management, board practices and the exercise of shareholder rights had played an important role in the development of global crisis, the OECD Principles of Corporate Governance issued in 2004, nevertheless, provided a good basis to adequately address the key concerns that have been raised and that there was no urgent need for them to be revisited. The Group opined that the more urgent challenge was to encourage and support the implementation of already agreed international and national standards including the OECD Principles of Corporate Governance. Basel Committee on Banking Supervision (BCBS) has revisited its 2006 guidance on corporate governance and brought out *Principles for enhancing corporate governance* (October 2010). The Financial Stability Board (FSB) has, in its progress report to the G20 Ministers and Governors (November 2012) also made recommendations relating to the corporate governance issues of systemically important financial institutions (SIFIs).

Risk Governance

17. There is an enhanced realisation that the risk governance demands a holistic approach and that risk appreciation should start at the top. A strengthened management information system (MIS) supported by robust information technology platform is a necessary pre-condition for enhancing Board efficiency in oversight and decision making. Similarly, augmented skill sets and experience at the level of independent directors would go a long way in enhancing the Board capacity. Strong MIS facilitates risk reporting to the boards in an effective and comprehensive manner, which in turn enhances transparency and causes informed decision taking. Robust information technology systems are a necessary condition for supporting the MIS framework as the quality of risk information that the Boards and the top management receive depends largely on the quality and robustness of the information technology systems[6].

18. In addition to prescribing the risk appetite for the institution, the board also needs to lay down appropriate risk strategy and ensure that this is institutionalised throughout the organisation. This would entail, aligning risk management processes with the overall business strategy, clearly defining the roles and responsibilities down the hierarchy, establishing accountability and reinforcing change with communication and training. The Board and the senior management oversight must be supplemented with effective leadership by the Chairman and the chief executive officer (CEO), and informed non-executive directors. The Boards must get much more intimately involved in risk matters and have a firmer understanding of the key risks faced by the business.

19. Effective risk governance also demands that each director is aware of the breadth of risks faced by the bank. Directors add value to the Board when they have financial expertise, are aware of risk fundamentals and techniques, and are able to manage dynamics with executives.

20. Board level risk committees have an important role to play in the overall risk governance framework. Apart from monitoring the firm's strategic-risk profile on an on-going basis, such committees would also be responsible for defining the firm's overall risk appetite; approving major transactions above a firm's risk threshold, and; establishing limit structures and risk policies for use within individual businesses.

21. Presence of a Chief Risk Officer (CRO) is expected to strengthen the risk management framework. However, independence of the CRO, with necessary stature to influence decisions, would be a critical

6 Group of Thirty, '*Toward Effective Governance of Financial Institutions*'

element in ensuring the effectiveness of the post in risk management process as also the strategic risk management related decisions. The CRO must report directly to the CEO and the Board and be responsible for all risks, risk management and control functions. Another important requirement is integrating risk with business strategy and compensation. Risk – and return on risk – need to be core component of any performance measure, and should be explicitly factored into incentive and compensation schemes. Compensation must be formally aligned with actual performance, such as through adding more rigorous risk-based measures to scorecards. This would also involve moving to longer vesting periods, and increasing deferred compensation.

22. The fragmented organisation of risk data into separate silos slows down risk management process and hinders the capability to respond to new regulatory requirements. The financial crisis has pushed both supervisors and market players to move towards an integrated approach to risk data that brings down the silos in organisation. Only by integrating data models, processes and methodologies can a bank achieve higher performance in terms of data quality.

23. The risk management systems must take into account the technical limitations of risk models, such as Value at Risk (VaR). Stress testing and scenario analysis need to be established as truly effective management tools and should be integrated and standardised across business lines, types of risk and asset classes.

Financial Stability Board (FSB)'s thematic review on risk governance

24. The Financial Stability Board (FSB) in its Thematic Review on Risk Governance[7] has observed that since crisis, national authorities have taken several measures to improve regulatory and supervisory oversight of risk governance at financial institutions such as developing or strengthening existing regulation or guidance, raising supervisory expectations for the risk management function, engaging more frequently with the board and the management, and assessing the accuracy and usefulness of the information provided to the Board to enable effective discharge of responsibilities. The evaluation also found that in many jurisdictions, the governance practices are more advanced that those prescribed under national guidance. This, the report opined, may have been motivated by firms' need to regain market confidence rather than regulatory requirements. The results of the Review support the finding that the firms in the regions hardest hit by the financial crisis have made the most progress.

25. However, there are significant gaps relative to the criteria developed, particularly in risk management. The report points to the differences in progress across regions. While firms in advanced economies have adopted more of the desirable risk governance practices, nearly 65 per cent of the firms that reside in emerging market and developing economies (EMDEs) did not meet all of the criteria for the risk management function. The report notes that more work needs to be done in the areas such as elevation of CRO position, establishment of an effective risk appetite framework (RAF), improving the chief audit executive (CAE)'s access to directors beyond those on the audit committee, *etc.*

Indian Scenario

Corporate Governance of Banks

26. Banking regulation in India shifted from prescriptive mode to prudential mode in 1990s, which implied a shift in balance away from regulation and towards corporate governance. Banks are accorded greater freedom and flexibility to draw up their own business plans and implementation strategies consistent with their comparative advantage. This freedom necessitated tighter governance standards requiring bank boards to assume the primary responsibility and the directors to be more knowledgeable and aware and also exercise informed

7 Financial Stability Board (Feb 2013), *Thematic Review on Risk Governance, Peer Review Report.*

judgement on various strategies and policy choices. With a view to strengthen corporate governance, over a period of time, various guidelines have been issued in matters relating to the role to be played by the Board, fit and proper criteria for the directors of banks, bifurcation of the post of Chairman and Managing Director (CMD), remuneration *etc.*

27. Recognising that ownership of banks by one or few individuals could be detrimental to the public interest, especially, depositors' interests, it is stipulated that, in India, banks should have a diversified ownership model. To ensure that ownership and control of banks are well diversified, guidelines on ownership and governance in private sector banks were issued by the Reserve Bank in February 2005. Another important regulatory prescription in this regard is the requirement of Reserve Bank's prior approval for any acquisition of shares in private sector banks resulting in a shareholding of 5 per cent or more of the total paid up capital of the bank.

28. The importance of diversified ownership is also underlined in the recent guidelines on new bank licenses wherein it is stipulated that Non-Operative Financial Holding Companies (NOFHC) which set up new banks should, after the initial lock in period of five years, bring down their equity capital of the bank from the minimum 40 per cent while setting up to 15 per cent within 12 years. To ensure 'Fit and Proper' status of the groups that would set up new banks, it is also stipulated that entities/groups should have a past record of sound credentials and integrity, be financially sound with a successful track record of 10 years.

Corporate Governance of Non-Banking Finance Companies (NBFCs)

29. Traditionally, Non-Banking Finance Companies (NBFCs) in India were small family run businesses some of which accepted deposits and engaged mainly in activities such as lending. Over the years, the NBFC sector has not only grown in size but also in terms of interconnectedness and systemic importance. Today, even though the sector has a total asset size constituting just above 12 per cent of that of scheduled commercial banks, some of the NBFCs have grown very big and are operating as conglomerates with business interests spread across insurance, broking, mutual fund, real estate, *etc.*

30. Keeping in consideration the growing significance of NBFCs in the financial system and their interconnectedness with the banking sector there is a strong case for strengthening their governance framework so as to not only protect the individual institutions and their depositors, but also to ensure the stability of the entire financial system. Further, NBFCs have exposures to sensitive sectors such as real estate and capital markets and they also rely on wholesale funding, all of which point to the requirement of robust internal controls and governance framework to ensure their stability.

31. During the crisis, while none of the shortcomings as observed globally during the GFC manifested in any significant way in the Indian NBFC sector, a temporary crisis of confidence did emanate which affected some of the NBFCs. The lack of confidence exposed the shortcomings in the funding model and consequent problems in the overall risk management framework of these NBFCs which were relying heavily on short term wholesale sources such as mutual funds to fund long term assets.

32. Further, certain shortcomings in the corporate governance were observed in a section of NBFCs *viz.*, those in the microfinance institutions (MFI) sector, leading to near collapse of the sector. Distorted financial incentives such as short term profit maximisation/ undue profiteering and excessive managerial compensation that were the hallmarks of the GFC were the leading contributors to the MFI crisis. The corporate governance issues in the MFI sector were exacerbated by some of the *'for profit'* MFIs, dominated and controlled by promoter shareholders which led to inadequate internal checks and balances over executive

decision making and conflict of interests at various levels. Other undesirable practices such as connected lending, excessively generous compensation for senior management and founders/directors and the failure of internal controls leading to frauds, precipitated the crisis. Some of the MFIs are also alleged to have chased high growth trajectory at the expense of corporate best practices.

33. While drawing comparisons between the US subprime crisis and Indian MFI crisis, in an article titled '*Microfinance Industry in India: Some thoughts*' in Economic and Political Weekly (EPW) (October 8, 2011), Dr. Y. V. Reddy, former Governor, RBI, had observed that opaque practices, high salaries and commissions including unethical business and leverage were prevalent in MFIs.

34. Recognising the significance of NBFCs in the overall financial system, measures were undertaken to strengthen the regulatory framework in terms of stipulation of capital adequacy and exposure norms in 2006. Subsequently in 2007, guidelines on corporate governance for NBFCs were issued by the Reserve Bank of India. The listed NBFCs were already required to comply with the provisions of the Listing Agreement of the Securities and Exchange Board of India (SEBI), others being governed by the relevant provisions in the Companies Act, 1956.

35. While the frameworks laid down by the various regulators/Companies Act may appear similar and over lapping in some areas, there are a few differences. Companies Act does not differentiate between financial, non-financial companies and SEBI Guidelines are generally from the perspective of investor protection with emphasis on disclosure and transparency. Therefore, RBI being the prudential regulator of NBFCs, additionally lays emphasis on risk management framework and the business practices *etc.* and its framework is mainly from the angle of depositor/customer protection. Reserve Bank's guidelines on corporate governance are applicable to only NBFCs with certain threshold of business, *i.e.*, with a certain deposit base or asset size.

Recent developments in NBFC sector

36. The Reserve Bank has recently issued draft guidelines on corporate governance of NBFCs based on the recommendations of the Working Group on the issues and concerns in the NBFC sector (Chair: Ms. Usha Thorat). The guidelines aim to fine tune the framework for NBFCs by aligning the same with the businesses that they deal in and the growth in size, interconnectedness and systemic importance of the sector. The Guidelines address issues such as multiple directorships, continuing due diligence process with a reporting requirement to RBI, self certified '*fit and proper*' criteria and disclosures that are specific to NBFCs' business, such as disclosures on provision coverage ratio, Asset Liability profile, movement of NPAs, off-balance sheet exposures, structured products issued by them *etc.* Other requirements include prior approval of RBI for change in control of any registered NBFCs. It is indicated that big NBFCs with asset size of Rs. 1000 crore and above would require prior approval of RBI for appointment of CEO and would need to comply with Clause 49 provisions (of SEBI listing agreement) even if unlisted. NBFCs with asset size of Rs. 100 crore and above would be required to comply with the disclosure requirements specified in Clause 49 and of certain financial indicators.

37. Given the recent episodes in the MFI sector, the corporate governance guidelines for MFIs have also been revamped. Measures are aimed at checking undesirable business practices like multiple lending, alleged coercive practices and charging excessive interest rates, *etc.* The guidelines are aimed at enhancing the 'self discipline principle' in these NBFCs. Measures include pricing of credit, restricting lending to a borrower by not more than two MFIs, sharing credit information with a Credit Information Bureau, review of Fair Practices Code (FPC) *etc.* A Self Regulatory

Organisation (SRO) also is envisaged for the sector as a watchdog. While the final framework is still being evolved, the role envisaged for the present, *inter alia*, is to ensure good governance in the industry by way of client protection with enforcement powers to check violations to codes of conduct/regulations.

Conclusion

38. Governance, like regulation, is an evolving concept and is continuously fine tuned to suit the dynamic economic and business environment. Global financial crisis has given us an opportunity for strengthening both the regulatory as well as governance frameworks, by highlighting gaps that exacerbated the crisis. There is an interesting debate over whether and how much regulation can substitute board level governance. While regulation is imposed from outside, corporate governance is internal and is more in the nature of self regulation which ensures that the principles and rules laid down by the regulations are scrupulously adhered to. Prior to the crisis, the emphasis was increasingly on self regulation through robust corporate governance so that the regulation could remain largely principle based and less prescriptive. However, serious lapses observed in governance framework during the crisis, tilted the balance in favour of more rigorous regulation. I am of the view that both regulation and corporate governance have to complement each other. Effective regulation furthers corporate governance and effective corporate governance ensures that the objectives of the regulation are met, with minimal regulatory intervention.

Thank you.

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*Statistics and the Reserve Bank: Recent Developments and Perspective**

Deepak Mohanty

Deputy Governor, Dr. Urjit R. Patel, Shri A. B. Chakraborty, Officer-in-Charge, Department of Statistics and Information Management (DSIM); heads of select central office departments; distinguished statisticians and economists from the academia; and friends. I extend a warm welcome to you all to the Annual Statistics Conference 2013, organised by DSIM. This conference provides a platform to the officers of DSIM to present their research work before the experts and receive their feedback in order to make the analysis more meaningful for policy and research. I thank the distinguished professors who have consented to discuss various papers prepared by my colleagues in DSIM: Prof. Manoj Panda (Director, Institute of Economic Growth, Delhi), Prof. N. R. Bhanumurthy (NIPFP, New Delhi), Prof. Tathagata Bandyopadhya (IIM, Ahmedabad), Prof. Rajendra Vaidya (IGIDR, Mumbai), Prof. Chetan Ghate (ISI/ICRIER Delhi), Prof. Pulak Ghosh (IIM, Bangalore) and Prof. T. V. Ramanathan (Pune University). You all bring together plenty of expertise and experience in the field of theory and practice of statistical research for economic policy making which is of great value to us.

2. I have said it earlier that Statistics is a public good. As a central bank, we are responsible for generating various macro-financial statistics collected both from primary and secondary sources in the process of implementing our policies. We use statistics and statistical tools extensively to aid informed policy making. Therefore, a solid statistical grounding and soiling the hands with data are basic prerequisites for the making of a good empirical economist. This is evident from the presence of many eminent economists amongst us in this conference.

3. Let me recapitulate briefly about the outcome of the 2012 conference in the context of major developments that took place in the statistical activities during last one year. In the last year's conference, DSIM researchers presented 12 technical papers. Subsequently these papers were revised based on the feedback received from the external experts. I am happy to note that 5 papers have been already submitted for publication in RBI Working Paper Series/RBI Occasional Papers/outside journals and others are in various stages of completion.

4. The research activities of the Department encompass measurement of economic indicators, analysis, modelling and forecasting of economic growth, inflation, corporate performance and capturing economic agents' response to expected macro developments for forward looking monetary policy formulation. Based on various univariate and multivariate models, projected path of growth and inflation is presented in the form of fan charts. In the current economic scenario, the analysis of growth-inflation trade-off, exchange rate pass-through and inflation persistence carried out by the Department was particularly useful for calibrating monetary policy actions.

5. Last year, the conference outlined several data and dissemination initiatives for better harmonisation and synergy between data producers and users. I am happy to note that the department has released a new user friendly interface of Database on Indian Economy (DBIE) and has transformed data warehouse utilities into a major production tool of the Bank. All the major statistical publications of the Bank, as well as all the tables of RBI Bulletin and Weekly Statistical Supplement (WSS), are now generated directly from DBIE.

6. The previous conference also emphasised the need for initiatives for improving banking data with regard

* Opening Remarks by Shri Deepak Mohanty, Executive Director, at Annual Statistics Conference 2013 of the Reserve Bank of India on March 22, 2013 at Mumbai.

to quality, coverage, presentation and dissemination. It was deliberated that data quality and coverage issues require a collaborative effort across the various regulatory, research as also policy departments so as to harmonise the reporting of data. In this connection, the Department had several rounds of interactions during the year with RPCD and DBS to address these issues and resolve the same. Regarding harmonising the reporting of deposits and credit data at granular level, action has been initiated for codification of the input data structure at the data processing and reporting systems of banks as per the classification and coding system followed for the BSR system. The main objective is to source all these data from the banks' CBS platforms so that data reported by the banks to various departments of the Reserve Bank become consistent with the granular databases maintained by the banks. In order to take these initiatives forward, this conference has two structured panel discussions with participation of the stakeholder departments of the Bank. The outcome of the discussion today and tomorrow is expected to pave the way for availability of quality banking statistics.

7. On the operational front, the department conducted a survey on demand and usage of coins across 12 centres, prepared a research paper on estimating counterfeit notes in circulation, and provided statistical basis of estimation of agency commission of commercial banks undertaking government business.

8. The surveys conducted by the department particularly on macroeconomic changes continue to provide valuable inputs for forward looking monetary policy formulation. These include Industrial Outlook Survey (IOS), Order Books, Inventories and Capacity Utilisation Survey (OBICUS), Credit Conditions Survey (CrCS), Inflation Expectations Survey of Households (IESH), Consumer Confidence Survey (CCS) and Survey of Professional Forecasters (SPF). Key findings of most of these surveys are now published on the RBI website simultaneously with the Macroeconomic and Monetary Developments every quarter. This has increased visibility of our survey output and has improved considerably the timeliness in dissemination of survey results. However, this has also increased our accountability of research outputs and responsibility of maintaining good quality statistics. Technical skills of our survey data analysis is now implicitly under public scrutiny.

9. For guidance on technical issues related to surveys, a high level Technical Advisory Committee on Survey (TACS) has been constituted. During the year, coverage of IESH survey has been extended to four more centres covering a total of 16 important centres. Pilot Survey on Employment of Fresh Graduates from Technical Institutions was conducted during June-August, 2012 to collect placement data for 2010-2011 and 2011-2012 from 61 engineering and management institutes to assess trends in employment opportunities of fresh graduates. House price index compilation has been extended to 4 more cities, covering now total 10 cities. Further, in order to complement this, the Department has successfully introduced an Asset Price Monitoring System (APMS) based on housing loan account information available with banks.

10. A dynamic database called 'Branch Locator' was released in the Bank's website providing detailed information (like location, type of business) on branches of commercial banks. This has helped banks in accessing locational information for branch expansion and financial inclusion. Scope of BSR-4 survey, one of the key RBI survey tailored for estimating household savings in the form of bank deposits, hitherto conducted on a sample basis, has been widened to a census from March 2012. The scope of BSR -7 was also expanded to collect data on deposits by type (current, savings and term) from March 2012 quarter. A Standing Monitoring Group has been constituted to implement enhancements to IBS as recommended by the BIS Committee on the Global Financial System (CGFS).

11. In India, analysis of monetary policy transmission was constrained due to absence of effective lending

rate data of banks. In this context, in a research paper, the Department provided a comparable annual time series data on weighted average lending rates (WALR) for bank credit for major sectors in India for the period 1992-2010 based on the comprehensive account level BSR database. This information bridged an important data gap for empirical assessment of the bank lending rate channel of monetary transmission.

12. In the current macroeconomic scenario, the issue of wage price spiral and inflation has resurfaced and has been a topic in public discourse. In this context, the Department compiled a long time series data on rural wage rate based on the data contained in the Labour Bureau Journal for 18 occupations for all the major states as well as at all India level. This is a monthly data base starting from July 1995 to November 2012 (latest) and is available to the public in a user-friendly format in the data warehouse.

13. Regional market intelligence or statistical intelligence plays a pivotal role in providing important inputs to monetary policy and many central banks have established statistical system for gathering regional information. With its reorganised structure and wider presence of regional offices in major centres, the Department has put in place a similar system of gathering relevant statistics and market intelligence, particularly in the area of prices of essential commodities. This system is potentially useful to gauge an early signal of price pressure across commodities before the official data release. Also this data is useful in validating the price trends as available in official price indices like WPI and CPI.

14. The reporting of purpose code under Foreign Exchange Transactions Electronic Reporting System (FET-ERS) was extended to all foreign exchange transactions, including small receipt transactions, on a census basis from April 1, 2012, as suggested by the Central Board. The resultant transition helped India to become one among the pioneer countries to implement BPM6 standards for BoP reporting. Information on International Investment Position, Co-ordinated Direct Investment Survey (CDIS), Co-ordinated Portfolio Investment Survey (CPIS) (for Mutual Funds, Insurance and Private Corporate Sector) are dissemination as a part of the commitment in adherence to the SDDS framework of IMF and G-20 data gaps initiatives.

15. The XBRL project under the High Level Steering Committee (Chairman: Shri Anand Sinha, Deputy Governor) on standardisation in reporting of financial data has made considerable progress during the year. The second phase of this project has been taken up covering 43 returns (22 OSMOS returns, 16 external sector returns of FED and DSIM and 5 returns of UBD). XBRL reporting is being integrated with the data warehouse and will be the only platform for receiving and validating all the incoming data in due course.

16. Central banking today is more challenging than ever and availability of reliable and timely information is the key to effective policy making. The statisticians in the Reserve Bank perform a multifarious role. While the Department has many achievements in the past, let me share a few challenges for the Department going forward.

First, data gaps are an inevitable consequence of the ongoing development of markets and institutions. As has been true of previous international financial crises, these gaps are highlighted when a lack of timely, accurate information hinders the ability of policy makers and market participants to develop effective responses. Indeed, the recent crisis has reaffirmed an old lesson – good data and good analysis are the lifeblood of effective surveillance and policy responses at both the national and international levels. In this context, G-20 data gaps initiatives have provided a statistical framework across nations which are consistent and comparable. DSIM, being the nodal Department in the Bank, has a major role in taking this initiative forward.

Second, there are some surveys on macroeconomic changes which merit further thrust. We have made a beginning on collection of data on employment

opportunities of fresh graduates. We need to have better understanding of the potential demand pressure in the economy. In this context, an important indicator which provides early signs of overall economic activity is retail sales. Many central banks are effectively using the retail sales data. A quarterly survey on retail sales across cities may be initiated with the help of regional offices.

Third, while the Department has developed the database on rural wage rate, there is an urgent need to understand the wage price development in the urban sector. Towards this, quarterly corporate results could be suitably examined in order to provide time series data of urban wage.

Fourth, the Department is involved in various data gap and statistical measurement issues through its participation in various committees within and outside the RBI. One particular issue that has received renewed attention recently is the development of a Producers Price Index (PPI), including services. While this is presumably an institutional effort being made by the Government, work relating to a statistical framework of PPI in Indian context could be attempted by the Department.

Fifth, during last 5 years or so, statistical systems both for financial and banking, have undergone a major change. New systems are introduced in line with global standard of data compilation and dissemination. In this context, efforts should be made to update the 'Manual on Banking and Financial Statistics', which was published last in 2007.

Sixth, while the Department has made considerable inroads towards collection of forward looking information for monetary policy formulation, our effort on financial inclusion surveys has been limited. Financial inclusion is policy priority of the Bank. Therefore, it is necessary for the Department to engage itself in formulation and undertaking of surveys on financial inclusion, particularly assessment of financial inclusion outcomes in the villages following the outreach programme of the Bank, in collaboration with RPCD and its regional offices.

Seventh, the Department has noticeable presence in a number of central office departments, like Monetary Policy Department (MPD), Department of External Investment and Operations (DEIO), Internal Debt Management Department (IDMD), Department of Information Technology (DIT), Department of Payment and Settlement Systems (DPSS), Department of Banking Supervision (DBS) and Financial Stability Unit (FSU). It is desirable that our officers in these departments provide analytical inputs for policy and operational issues and come out with research papers. These papers could be presented in conferences and published eventually in the RBI Working Paper Series. This will make research more valuable in furthering our organisational objectives.

Eighth, focused and determined approach to research across various units, including the regional offices, should be pursued so that research agenda being adopted by the Department is accomplished in a timely manner. For data management and dissemination, technology must be harnessed to its fullest extent. There is also a need to strengthen the modelling and forecasting capabilities towards developing a full fledged forecasting suite including DSGE models.

17. Finally, I conclude with a quote from the famous statistician John Tukey: '*The best thing about being a statistician is that you get to play in everyone's backyard.*' I see limitless opportunities for a statistician as the demand for statistical skills and statistics in the Bank keeps growing as we grapple with many questions. I hope the deliberations of this conference will bring academics and policy makers closer and lead to strengthening our statistical analysis and system. I wish the conference all success.

18. Thank you.

*Efficacy of Monetary Policy Rules in India**

Deepak Mohanty

I thank Professor Pami Dua for the opportunity to interact with this distinguished gathering of professors and young scholars. The Delhi School of Economics has a formidable reputation world over in teaching and research in economics. I will be speaking on the subject of monetary policy rules, not only because it relates to my area of work, but it offers considerable scope for research.

My scheme of presentation is as follows. First, I begin by giving you a snapshot of the evolution of monetary framework in India to contextualise how short-term interest rate has emerged as the key operating objective of monetary policy. Second, I briefly focus on the debate on rule *versus* discretion in the conduct of monetary policy. Third, I present simple Taylor rule estimates for India covering the recent period of 2001-2013 reflecting greater use of interest rate as an instrument of monetary policy. I will conclude with some thoughts on the way forward.

Monetary policy operations

Let me briefly highlight the evolution of monetary policy operating framework in India, to place our discussion on interest rate rules in perspective. In India, as in most countries, monetary policy framework has evolved in response to and as a consequence of financial developments, openness and shifts in the underlying transmission mechanism. The evolution of monetary policy framework in India can be seen in phases. In the formative years during 1935–1950, the focus of monetary policy was to regulate the supply of and demand for credit in the economy through the bank rate, reserve requirements and open market operations (OMO). In the development phase during 1951–1970, monetary policy was geared towards supporting plan financing. This led to introduction of several quantitative control measures to contain consequent inflationary pressures. While ensuring credit to preferred sectors, the bank rate was often used as a monetary policy instrument. During 1971–90, the focus of monetary policy was on credit planning. Both the statutory liquidity ratio (SLR) and the cash reserve ratio (CRR) were used to balance government financing and the attendant inflationary pressure.

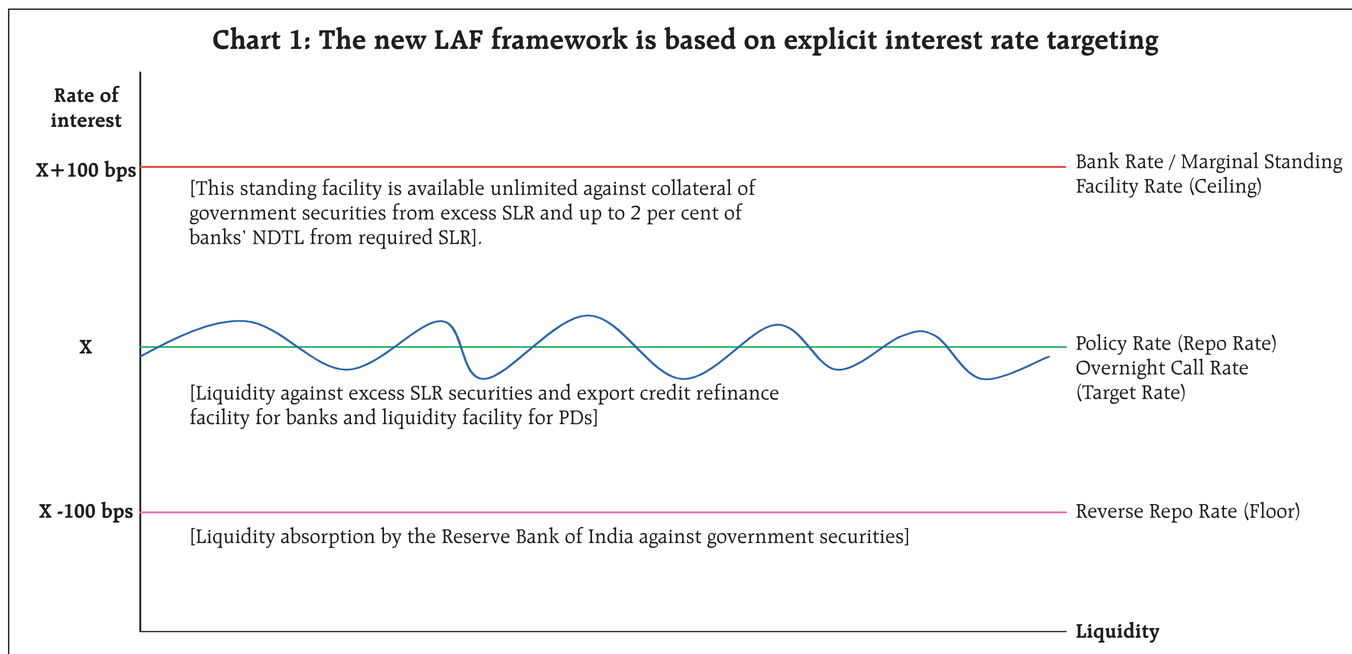
Subsequently, structural reforms and financial liberalisation in the 1990s shifted the financing paradigm for the government and commercial sectors with increasingly market-determined interest rates and exchange rate. By the second half of the 1990s, in its liquidity management operations, the Reserve Bank was able to move away from direct instruments to indirect market-based instruments. Starting in June 2000, the Reserve Bank introduced a full-fledged liquidity adjustment facility (LAF). It was operated through overnight fixed rate repo and reverse repo in November 2004. This process helped to develop interest rate as an instrument of monetary transmission. This framework was reinforced in May 2011 when the weighted average overnight call money rate was explicitly recognised as the operating target of monetary policy and the repo rate was made the only one independently varying policy rate (Mohanty, 2011)[1].

The new operating framework illustrated in Chart 1 with the modified LAF assigns a greater weight to the interest rate channel of monetary transmission. This means that once the Reserve Bank changes policy repo rate, it should quickly impact the overnight interest rate which is the operational rate and then transmit

* Speech by Shri Deepak Mohanty, Executive Director, Reserve Bank of India at Delhi School of Economics, Delhi, March 25, 2013. The assistance provided by Dr. Abhiman Das and Shri Binod Bhoi in preparation of this speech is acknowledged.

1 Mohanty, Deepak (2011): "How does the Reserve Bank of India conduct its Monetary Policy?" *Reserve Bank of India Bulletin*, September.

Chart 1: The new LAF framework is based on explicit interest rate targeting

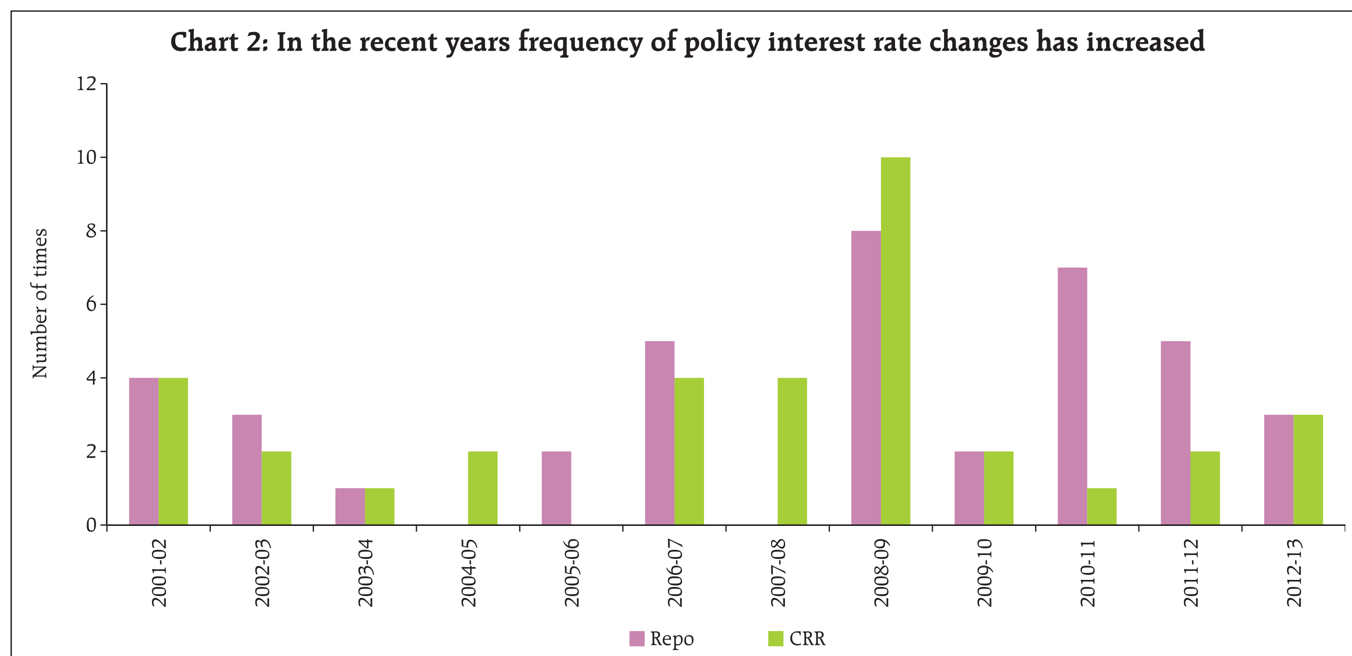


through the term structure of interest rates as well as bank lending rates. Increasing importance of this channel was also evident from the mix of instruments of policy actions. Over the years, in comparison with CRR, the use of interest rate instruments such as the Repo rate by the Reserve Bank has been more frequent, except for the year 2008-09, which was the peak of the global financial crisis (Chart 2).

Rule *versus* discretion

As the Reserve Bank has started explicitly targeting overnight interest rate as the operational objective with the instrument of policy repo rate, there are relevant questions that arise: How that interest rate should be determined? Should it broadly follow a rule or should it be based on the central bank's discretion? The debate about rule *versus* discretion is as old as monetary

Chart 2: In the recent years frequency of policy interest rate changes has increased



economics. This issue received added impetus as the monetary system transited from gold standard to fiat money. When Kydland and Prescott (1977) in their seminal article presented the time inconsistency argument in favour of rules, the debate became even sharper[2]. Subsequently, Taylor (1993) demonstrated how even in the practical world of monetary policy making, the monetary policy reaction function could be modeled as predetermined rules with superior policy outcome[3]. Let me briefly touch upon the pros and cons of rule-based monetary policy before turning to the formulation of Taylor rule.

A number of reasons have been advanced in the literature as to why rule-based monetary policy could be more effective. First, a rule towards a credible commitment by the central bank to maintain price stability can reduce the inflation bias from monetary policy. Second, rules enhance economic efficiency by reducing uncertainty about future policy. Third, rules help policymakers avoid pressures from special interest groups and facilitate action consistent with long-run goals. Fourth, rules facilitate communication, promote transparency and increase accountability.

Similarly, there are arguments against application of rules. First, the economic system is too complex to be characterised by any rule. Second, the same rule may not work over the business cycle. Third, rule-based policy reduces the flexibility to respond to exogenous shocks. Fourth, rules do not allow for policy surprises which may be desirable for policy effectiveness under certain circumstances. Fifth, rules are ill suited to developing economies characterised by underdeveloped financial markets and rapid structural transformation.

2 Kydland, Finn and E. Prescott (1977): "Rules Rather than Discretion: The Inconsistency of Optimal Plans", *Journal of Political Economy*, 85 (3), 473-492.

3 Taylor, J.B. (1993): "Discretion versus policy rules in practice", *Carnegie-Rochester Conference Series on Public Policy*, 39, 195–214.

In practice, it is difficult to come across central banks, which explicitly spell out their policy rules. However, for modern central banks, empirical assessments and policy evaluations are increasingly based on rules ever since Taylor's influential paper. In empirical work, original Taylor rule is modified and extended in a variety of ways for adapting to specific country set up and evolving monetary framework. These include forward-looking Taylor rule, Taylor-McCallum type rule, non-linear framework for addressing asymmetric behavior of monetary policy and time-varying nature of its parameters.

Taylor rule

Taylor rule is an interest rate feedback rule for a central bank for setting short-term interest rates to achieve both its objectives of stabilising the economy and achieving price stability as economic conditions fluctuate. This could be expressed as:

$$i_t^* = r_t^* + \pi_t + \beta(\pi_t - \pi_t^*) + \gamma(y_t - y_t^*) \text{ .... (1)}$$

Where, i_t^* = short-term (target) nominal interest rate, π_t = rate of inflation, π_t^* = desired rate of inflation, r_t^* = real (equilibrium) interest rate, y_t = real GDP growth rate and y_t^* = potential real GDP growth rate. From the Taylor rule specification, one can define 'neutral' rate of interest i_t^* as the short-term interest rate for which the economy is growing at its potential level and inflation is at its desired level. Hence, 'neutral' rate of interest $i_t^* = r_t^* + \pi_t^*$.

The rule recommends that short-term interest rate should be changed according to the deviation of inflation from its predetermined target and output from its potential level. Essentially, the combination of inflation and output gap should determine what should be the appropriate policy rate that would return the economy to its potential level without causing inflation. If these goals are in conflict in the sense that inflation is above its target and the economy is growing below its potential or *vice versa*, the rule provides guidance

on how to balance these competing considerations in setting an appropriate level for the policy interest rate.

While β and γ could be estimated from data, Taylor assumed those as 0.5 each. In a sense it assigns equal weight to both inflation and growth objectives. This is a reasonable assumption considering that most central banks are concerned both with inflation and growth. These dual objectives are built into many central bank statutes, including that of the US in a way. He also additionally assumed that desired level of inflation for the US was 2 per cent per annum and the equilibrium real policy rate was 2 per cent per annum. Taylor (1993) showed that a simple monetary policy rule, where the US Fed raises the interest rate if inflation rate exceeds a 2 per cent implicit target or if real GDP growth is higher than its potential, describes quite well the actual path of the Fed funds rate between 1987 and 1992.

The linear framework of Taylor rule is, however, criticised by many on the ground that central banks have asymmetric preferences for interest rate smoothing depending on the direction of their monetary policy stance. In addition to changes between discretionary and rule-based policy regimes, economic theory provides several reasons for deviating sometimes from a symmetric and linear policy rule framework (Gerlach, 2000).[4] An accepted way of representing such behaviour in literature is to assume that actual interest rate i_t gradually adjusts to the desired rate as: $\acute{i}_t = \rho i_{t-1} + (1-\rho)\, \acute{i}_t^*$, where $0 \leq \rho \leq 1$ captures the observed smoothing of the policy rate by the central bank, *i.e.*, the smoothing parameter. Substituting this in the original Taylor rule formulation in (1), the modified Taylor rule with smoothing takes the form as:

$$\acute{i}_t = \rho i_{t-1} + (1-\rho)[\alpha + \beta(\pi_t - \pi_t^*) + \gamma(y_t - y_t^*)] \quad \ldots(2)$$

It may be noted that equation (2) is not linear in parameters and hence parameters ρ, α, β and γ are estimated from the observed data by non-linear least square method.

Estimates for India

In India there has not been much research on monetary policy rules partly because the underlying monetary framework largely relied on direct and quantity based instruments. Moreover, the commercial interest rate structure was highly regulated till recently. In the Indian context, Singh (2010) estimated Taylor rule using annual data for the period 1950-2009 and observed a shift in policy response towards inflation gap since the 1990s.[5] Patra and Kapur (2012) estimated a forward-looking exchange rate augmented Taylor rule and found a high degree of interest rate smoothing.[6]

Empirical estimation of Taylor rule will require a priori determination of three parameters: the desired level of inflation, potential output and equilibrium real policy rate. These parameters are country-specific, and hence need to be estimated.

First, in the mid-1980s the Chakravarty Committee (1985)[7] had suggested a tolerable level of inflation of 4.0 per cent per annum to facilitate changes in relative prices necessary to attract resources to growth sectors. The Reserve Bank's current assessment suggests that the threshold level of inflation for India is in the range of 4.4-5.7 per cent, implying a mid-point rate of 5.0 per cent (Subbarao, 2013).[8] Drawing on the research in the Reserve Bank, the desired level of inflation rate in terms of year-on-year variation in the wholesale price index

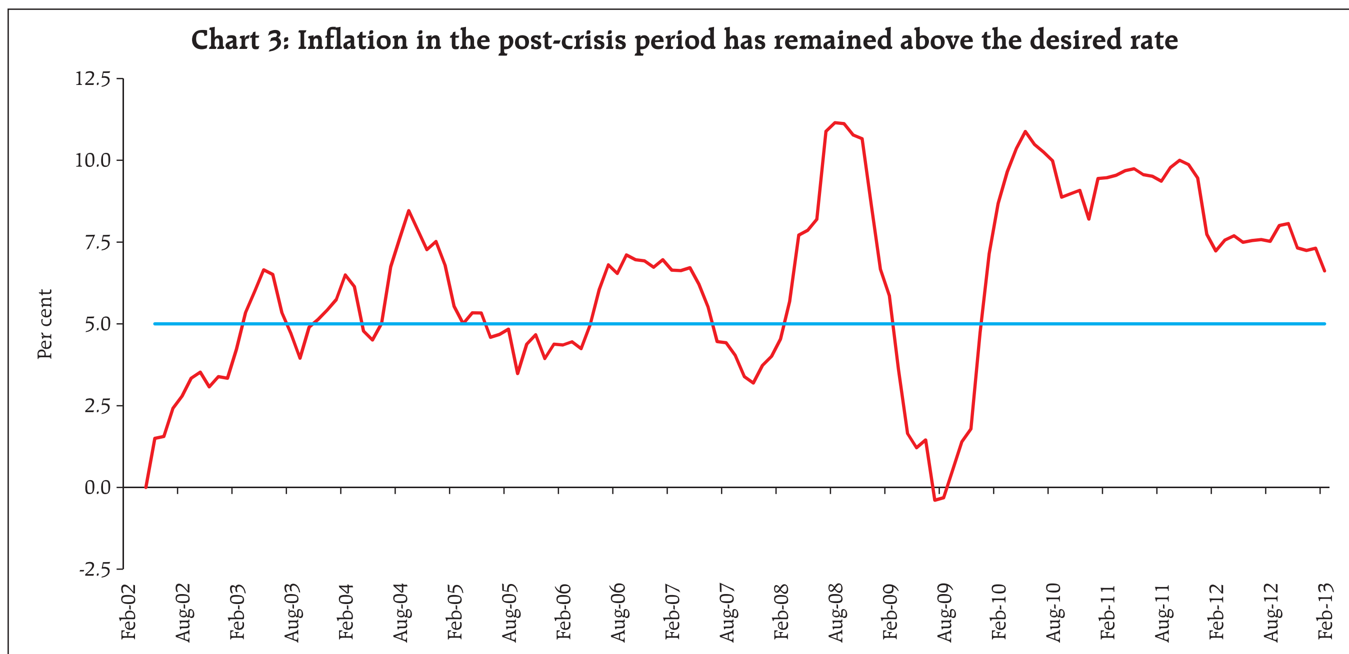
4 Gerlach, S., (2000): "Asymmetric Policy Reactions and Inflation", *Working Paper*, Bank for International Settlements.

5 Singh, Bhupal (2010): "Monetary Policy behaviour in India: Evidence from Taylor-Type Policy Frameworks", Reserve Bank of India, *Staff Study*, SS (DEAP): 2/2010.

6 Patra, M. D. and M. Kapur (2012): "Alternative Monetary Policy Rules for India", *IMF Working Paper*, No.118, IMF.

7 Reserve Bank of India (1985): *Report of the Committee to Review the Working of the Monetary System (Chairman: Sukhamoy Chakravarty).*

8 Subbarao, D (2013): "Is There a New Normal for Inflation?" Speech delivered at the Bankers' Club, New Delhi on March 8, 2013.



(WPI) is assumed at 5.0 per cent. The actual inflation rate, however, has remained above this threshold level in the post-crisis period (Chart 3).

Second, the potential output growth can be estimated by using the Hodrick-Prescott (HP) filter. The estimated potential output is broadly comparable to the Reserve Bank's assessment that India's potential output may have dropped from 8.5 per cent during the high growth phase of 2003-08 to 8.0 per cent in the post-crisis period to around 7.0 per cent in 2012-13 (Chart 4).

Third, the determination of the neutral real policy rate is a complex issue as it is not observed in real time. One way is to derive it from a comprehensive general equilibrium model of the Indian economy. Another simpler, though not very satisfactory, way of deriving it is from the Taylor rule estimate itself. The empirical estimate from the two alternatives of Taylor rule estimated by us suggests it to be in the range of 0.5-0.9 per cent covering a longer period from 2000-01:Q_1 to 2012-13:Q_3 which encompassed the recent bout of high inflation. The implicitly derived number from the high growth and low inflation phase of 2003-08 works out to 1.1 per cent per annum (Table 1). For the purpose of this exercise we have assumed it to be 1 per cent. Combined with our first assumption of desired level of inflation of 5.0 per cent, it will imply that the neutral nominal policy rate could be assumed around 6.0 per cent per annum.

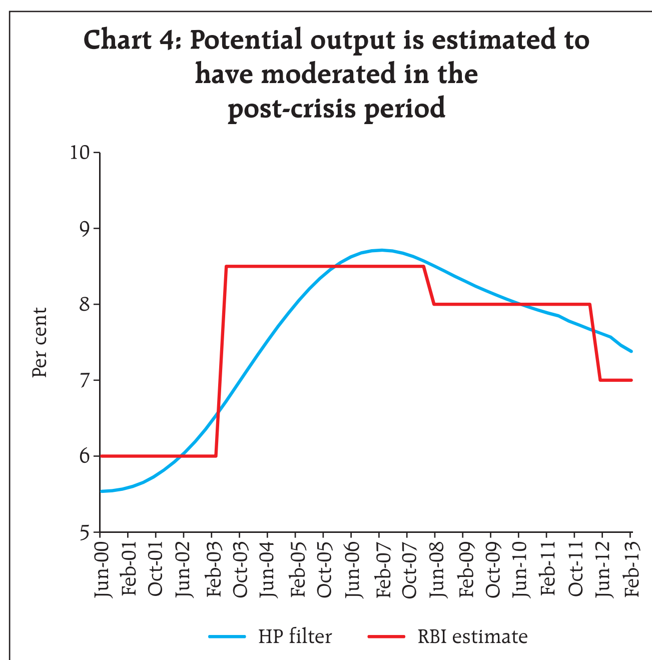


Table 1: While growth moderated inflation remained high in the post-crisis period

(Per cent)

Indicators	2003-08 average	2008-09	2009-10	2010-11	2011-12	2012-13	2008-13 average
GDP Growth	8.6 (1.1)	6.7	8.6	9.3	6.2	5.0*	7.0 (1.8)
WPI Inflation	5.6 (1.0)	8.1	3.8	9.6	8.9	7.4^	7.2 (2.2)
Repo Rate	6.7 (0.7)	7.4	4.8	5.9	8.1	7.9	6.7 (1.4)
Real Repo Rate	1.1 (1.3)	-0.7	1.0	-3.6	-0.8	0.5	-0.5 (1.8)

*Advance Estimates.
^ Apr-Feb. Figures in brackets are standard deviations.

Following these three key assumptions, empirical analysis is done in two stages. In the first stage, we have estimated the Taylor rule from the observed data with and without interest rate smoothing. In the second stage, we have simply used the original Taylor rule assuming inflation and output gap coefficients at 0.5 each. Our empirical analysis is based on quarterly observations from 2000-01:Q_1 to 2012-13:Q_3 with average overnight call money rate as the measure of short-term interest rate. The results suggest greater weight on inflation, evident from the level of statistical significance and correctness of the sign of the parameters, in the standard formulation. But interest smoothing becomes dominant in the alternative formulation alongside a significant weight on inflation. In this formulation, although the output gap has the expected sign, it turns out to be statistically insignificant. However, the explanatory power of the equation improves substantially as compared with the standard formulation (Table 2).

Given the estimated neutral rate of interest, desirable inflation rate and potential output growth, we have calculated the level of interest rate implied by the standard Taylor rule with equal weight of 0.5 to both inflation and output gap. The trend in estimated interest rate implied by Taylor rule showed periods of significant departure from the actual call money rate trajectory. But the deviation was more pronounced in the post crisis period which has since narrowed in 2012-13. Interestingly, there was close correspondence between the implied Taylor rule interest rate and actual overnight call money interest rates during the high growth phase of 2003-08 (Chart 5).

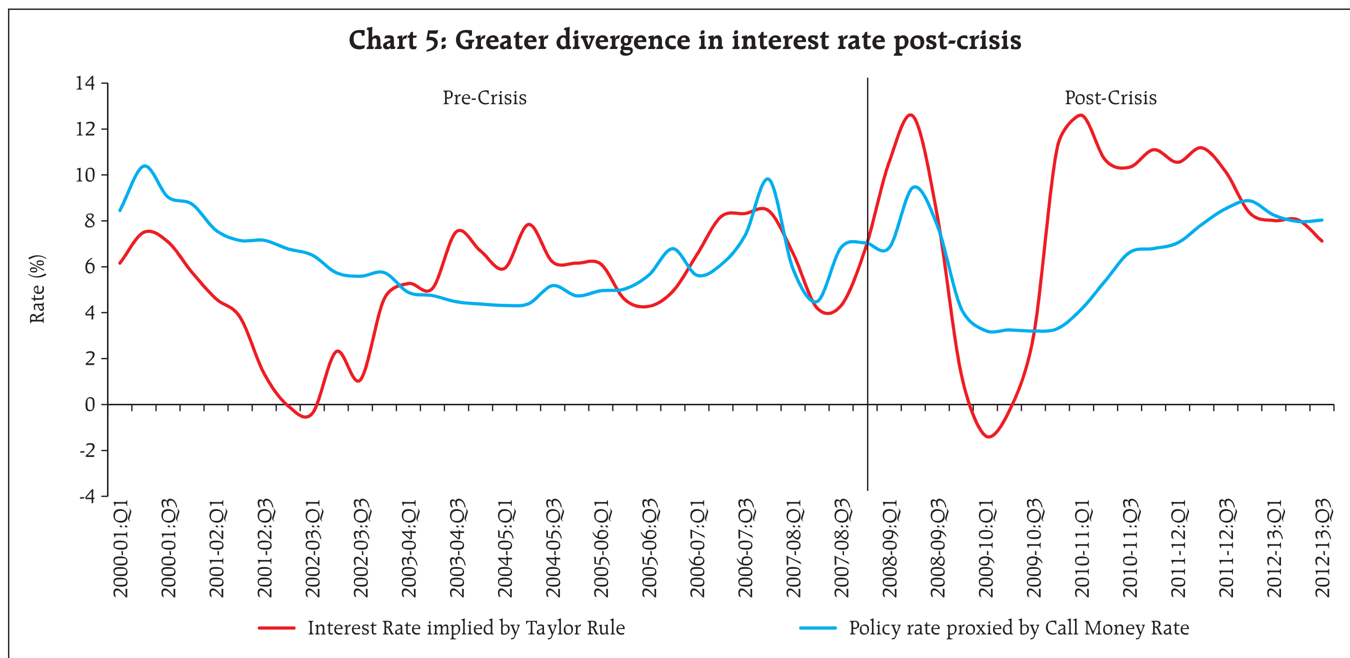
We also compare another measure of gap: interest rate gap as the difference between quarterly average overnight call rate and interest rate obtained from the Taylor rule, and inflation gap as the difference between quarterly average inflation rate and target inflation (Chart 6). It showed statistically significant inverse correlation which implies that higher the deviation of policy rate from that implied by the simple Taylor rule, higher is the deviation of inflation from its desired level.[9]

Table 2: Parameter estimates of Taylor rule

Equation	ρ	α	r*	β	γ	R^2
1. Estimated Standard Taylor rule	--	4.68 (0.00)	0.93	0.25 (0.02)	-0.26 (0.05)	0.21
2. Estimated Taylor rule with smoothing	0.75 (0.00)	1.92 (0.34)	0.52	0.72 (0.06)	0.23 (0.67)	0.66

Assumptions:
(i) Period of observations: Q1:2000-01 to Q3:2012-13.
(ii) Desired inflation rate (π^*) = 5%.
(iii) Potential output estimated by HP filter.
(iv) $r^* = \alpha + (\beta\text{-}1)\, \pi_t^*$ for given values of desired level of inflation at π_t^*.
Note: Figures in bracket indicate p-values.

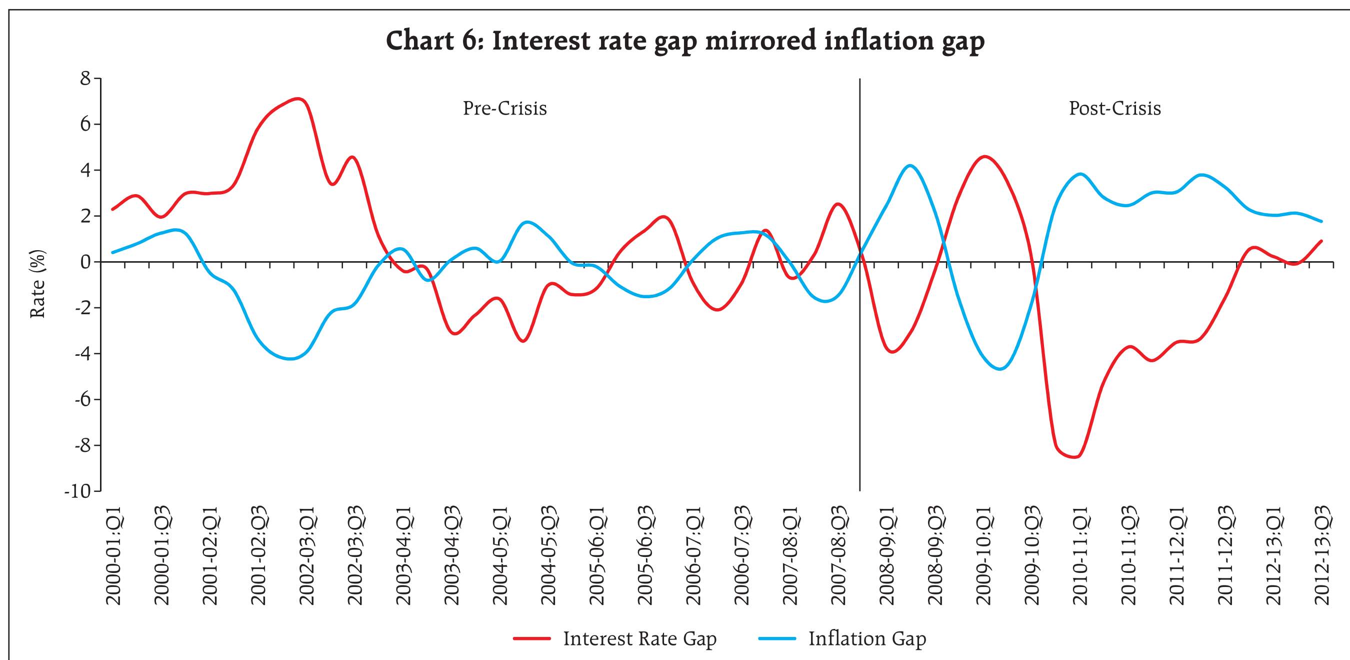
9 Correlation coefficient of -0.78 which was statistically significant at 1 per cent.



Moreover, in the crisis period, the gap had widened which has since narrowed in 2012-13. Additional diagnostics suggested bi-directional causality between the interest rate gap and inflation gap. It is noteworthy that this gap was narrower during the high growth phase of 2003-08.

Conclusion

Let me conclude. The Taylor rule has been extensively used to understand the interest rate setting behaviour of central banks across the world. Recent empirical work including the simple characterisation I have presented here suggests that a Taylor-type rule



could be a useful additional tool in understanding the interrelationship among growth, inflation and policy interest rate as the interest rate channel of monetary transmission strengthens. At the same time, it should be emphasised that Taylor rule has its limitations as exclusive emphasis on interest rates with the neglect of other variables may not be optimal for an emerging market economy like India. In my presentation if I have raised more questions than provide answers, I would have succeeded in my intention. There is a need for further research to enhance our understanding of appropriate interest rate structure which is conducive to price stability in the medium- to long-term.

Thank you.

ARTICLE

India's Foreign Trade: 2012-13
(April - December)

North-East Monsoon 2012: An Overview
(October - December)

Investment Portfolio of Scheduled Commercial Banks:
March 2012

India's Foreign Trade: 2012-13 (April-December) *

This article reviews India's merchandise trade performance during April-December 2012-13 on the basis of the data released by the Directorate General of Commercial Intelligence and Statistics (DGCI&S). It also analyses disaggregated commodity-wise and direction-wise details during this period.

Highlights

India's trade performance during 2012-13 (upto December 2012) continued to be weak as the trade deficit increased to US$ 147.2 billion reflecting substantial contraction in merchandise exports as compared to imports. The deterioration in export performance was evident across far more commodity groups as well as export destinations in H1 of 2012-13 as concerns regarding global slowdown escalated further during the period. Contraction in exports of manufactured goods, contributing around 64 per cent of total merchandise exports significantly impacted India's export performance. Of which, labour intensive sectors like handicrafts, textiles and gems & jewellery witnessed significant decline. Recovery in the trade sector is largely contingent upon the revival of global demand. As per latest projections by the IMF, global trade volume is expected to grow by 3.8 per cent in 2013 as against 2.8 per cent in 2012. Major highlights of India's trade performance during the period of April-December 2012-13 are given below:

- The export figures during April-December 2012 stood at US$ 214.1 billion with a decline of 5.5 per cent as compared to a growth of 29.6 per cent during April-December 2011.
- Imports during this period at a level of US$ 361.3 billion registered a decline of 0.7 per cent as against an increase of 35.2 per cent in April-December 2011.
- The decline in imports was mainly on account of the fall in gold and non-oil non-gold imports. Import of petroleum, oil and lubricants (POL) continued to rise, notwithstanding a decline in international prices of crude oil (Indian basket).
- The greater fall in exports compared to that of imports resulted in a trade deficit of US$147.2 billion during April-December 2012. Of which, the POL sector contributed the most with a deficit of US$ 85.4 billion.
- The disaggregated data for merchandise exports of commodities during H1 of 2012-13 show that decline in exports was largely on account of reversal of growth momentum in case of exports of petroleum products and engineering goods.
- Exports to EU countries have been severely impacted due to sluggish demand, particularly in Germany, Italy, UK and Belgium. Reflecting adverse spillovers from advanced economies to other economies, India's exports to most emerging market and developing economies (EMDEs) either declined or showed decelerated growth during H1 of 2012-13 as compared with corresponding period of 2011-12.

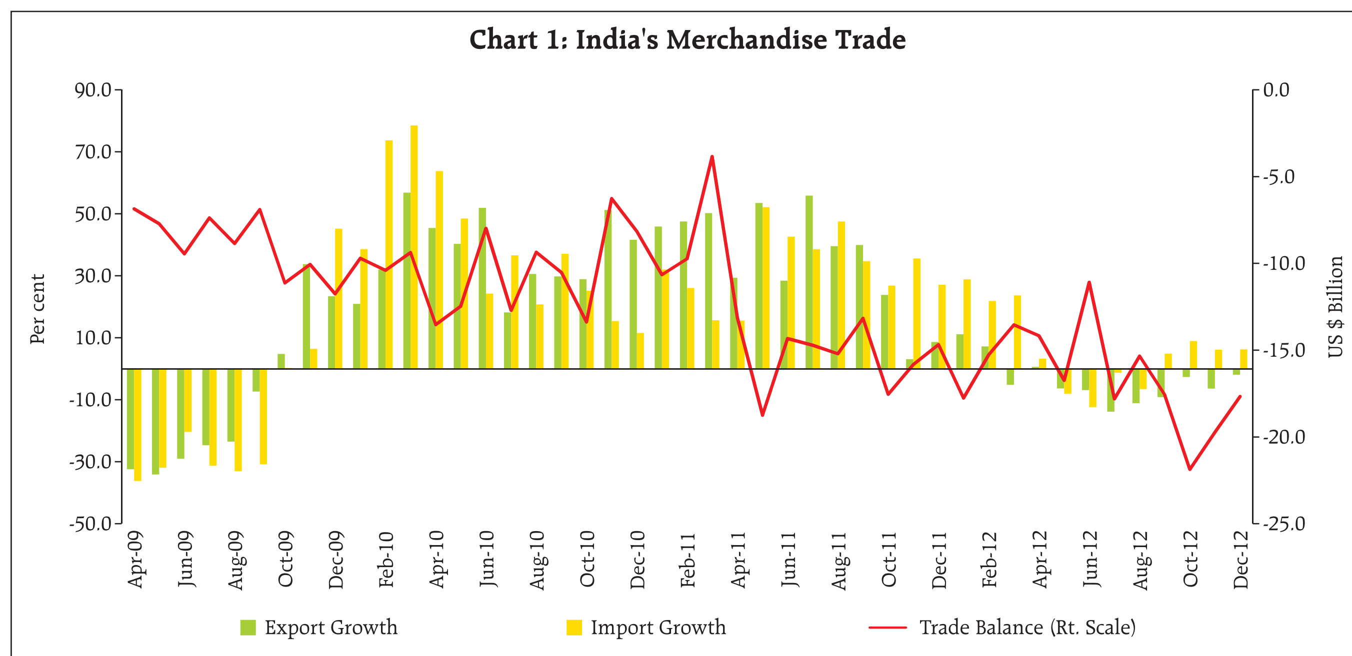
I. India's Merchandise Trade

Exports (April-December 2012)

Although export performance continued to be weak during this period, decline in exports in Q3 of 2012-13 was relatively less pronounced than that in H1 of 2012-13, perhaps reflecting the impact of export promotional measures undertaken by the Government in June 2012 (Chart 1). Lingering global uncertainties and weakness in advanced and EMDEs, however, continued to weigh on India's external demand.

Exports during April-December 2012 stood at US$ 214.1 billion with a decline of 5.5 per cent as against

* Prepared in the Division of International Trade and Finance, Department of Economic and Policy Research. The previous issue of the article was published in the Reserve Bank Bulletin, December 2012.



US$ 226.6 billion in April-December 2011 with an increase of 29.6 per cent (Table1).

Table 1: India's Merchandise Trade

(US$ billion)

Items	April–December	
	2011-12 R	**2012-13P**
1	2	3
Exports	226.6	214.4
	(29.6)	(-5.5)
Of which: Oil	42.3	40.0
	(49.5)	(-5.4)
Non-oil	184.3	174.4
	(25.8)	(-5.5)
Gold	5.0	4.7
	(31.6)	(-6.0)
Non-Oil Non-Gold	179.3	169.7
	(25.6)	(-5.5)
Imports	363.9	361.3
	(35.2)	(-0.7)
Of which : Oil	111.0	125.4
	(47.6)	(13.0)
Non-oil	252.9	235.9
	(30.4)	(-6.7)
Gold	41.7	37.8
	(46.3)	(-9.4)
Non-Oil Non-Gold	211.2	198.1
	(27.6)	(-6.2)
Trade Deficit	-137.3	-147.2
Of which: Oil	-68.7	-85.4
Non-oil	-68.6	-61.8
Non-Oil Non-Gold	-31.9	-28.7

Note: Figures in brackets represent growth rate.
Source: DGCI&S.

Commodity-wise and Destination-wise Exports (April-September 2012-13)

Disaggregated commodity-wise export data show that decline or deceleration in growth that began in H2 of the preceding financial year seem to have gathered momentum in H1 of 2012-13 (Table 2). Major items which moved from positive growth territory in the second half of preceding year to the negative growth territory in the current year include engineering goods, petroleum products, textiles and iron ore. Exports of iron ore continued to show growth deceleration reflecting the persistent impact of poor mining activity, increase in export duty since end-December 2011, increase in freights for iron ore exports and increase in iron ore price by about 8-13 per cent by the state owned miners. Though slower growth has been pervasive across all major sectors, some minor sub-sectors or commodities, however recorded accelerated growth. These mainly include tobacco, wheat, rice, processed minerals, manufacture of metal and carpets which together constitute less than 8 per cent of total exports.

Destination wise data show that exports to countries in the European Union and Asian countries

Table 2: India's Exports of Principal Commodities

(Per cent)

Commodity Group/ Period	Percentage Share			Relative Weighted Variation		
	2011-12	2011-12:H1	2012-13:H1	2011-12: H1	2011-12: H2	2012-13: H1
1	2	3	4	5	6	7
Primary Products	15.0	12.1	16.2	4.8	5.1	3.1
Agriculture and Allied Products	12.2	9.6	14.1	5.4	4.8	3.6
Ores and Minerals	2.8	2.5	2.1	-0.6	0.3	-0.5
Manufactured Goods	60.6	61.6	62.9	23.1	1.4	-2.7
Of which:						
Leather and Manufactures	1.5	1.6	1.7	0.6	0.2	-0.1
Chemicals and Related Products	12.1	11.7	13.3	4.7	2.1	0.8
Engineering Goods	22.2	23.0	22.3	8.3	0.4	-2.1
Textiles and Textile Products	9.2	9.3	9.1	3.3	0.1	-0.8
Gems and Jewellery	14.7	15.0	15.3	5.8	-1.4	-0.6
Petroleum Products	18.3	19.0	18.7	10.6	2.0	-1.5
Others	6.1	7.3	2.2	2.1	-1.2	-5.3
Total	**100.0**	**100.0**	**100.0**	**40.5**	**7.3**	**-6.4**

Source: Based on DGCI&S data.

has suffered a major setback. While exports to EU, accounting for 16.3 per cent in India's merchandise exports, declined by 11.2 per cent, those to Asian countries, (excluding Japan) with a share of 28.1 per cent, contracted by 8.4 per cent during April-September 2012 (Table 3). Even though India's exports have gradually became more diversified over the years through various policy measures (Box I), the growth deceleration in most of the Asian economies seems to have affected India's exports in H1 of 2012-13. In particular, a significant decline was observed in external demand from export-oriented Asian economies, *viz.*, China, Japan, Singapore, Hong Kong, South Korea and Malaysia. With scaling down of manufacturing activity in these economies, the demand for inputs from India seems to have been affected. Growth in exports to African and Latin American countries was also substantially lower during April-September 2012 as compared with corresponding period of 2011-12.

As shown in Table 4 and Table 5, high growth in exports recorded during H1 of 2011-12 was well diversified across region. As growth concerns evident in advanced economies spread over emerging market and developing economies as well, India's exports began to be impacted since H2 of 2011-12. For instance, the relative weighted contribution of developing Asia to total export growth declined to 4.3 percentage points in H2 of 2011-12 and later turned negative to 2.4

Table 3: India's Exports to Principal Regions

(Percentage Shares)

Region/Country	2010-11	2011-12	2011-12	2012-13
	April-March		April-September	
1	2	3	4	5
I. OECD Countries	**33.2**	**33.8**	**33.2**	**35.3**
EU	18.3	17.2	17.1	16.3
North America	10.6	12.0	11.8	14.4
US	10.1	11.4	11.2	13.7
Asia and Oceania	2.8	3.0	2.6	2.9
Other OECD Countries	1.5	1.6	1.8	1.8
II. OPEC	**21.3**	**19.0**	**18.3**	**21.8**
III. Eastern Europe	**1.1**	**1.1**	1.0	1.3
IV. Developing Countries	**38.2**	**40.8**	**39.3**	**40.8**
Asia	27.9	29.7	28.7	28.1
SAARC	4.6	4.4	3.9	4.7
Other Asian Developing Countries	23.3	25.3	24.7	23.3
People's Republic of China	6.2	6.0	5.2	4.4
Africa	6.3	6.7	6.2	7.7
Latin America	4.0	4.4	4.4	5.1
V. Others / Unspecified	6.2	5.3	8.2	0.8
Total Exports	**100**	**100**	**100**	**100**

Source: Compiled from DGCI&S data.

Box I: Policy Measures to Diversify India's Exports: Destination-wise

In recent years, India has made a distinct shift in terms of country-wise diversification of export. In fact, recognising the changing dynamics of world growth, India's trade policy recognised the need for adopting a market diversification strategy. As a part of the strategic plan, the Government accorded significant priority to market diversification of India's exports and building up a brand image of India. India's strategy towards market diversification emphasises (i) retaining presence in traditional advanced country markets, (ii) move up the value chain in providing products in traditional export markets and (iii) explore opportunities both in terms of markets and products in newly opened up emerging markets.

An inter-temporal comparison of India's destination-wise exports shows that the share of EMDEs in India's total merchandise exports has increased gradually since mid-1990s. Initiated along with the new economic policy in 1991, the Look East Policy seems to have boosted India's trade linkages with South-East Asian countries. Since the liberalisation of the economy, the Government provided a conducive policy environment through a mix of measures including fiscal incentives, institutional changes, procedural rationalisation, and efforts for enhanced market access across the world to boost exports. In 2006, the Government introduced a focus market scheme (FMS) which underscored the strategic necessity of enlarging India's market share in potential market. Under FMS, the Government allows duty credit facility linked to the FOB value of exports of all products to the notified countries. The objective of FMS was to offset the high freight cost and other difficulties faced by exporters entering international markets. Since its inception, the list of countries notified under FMS has been gradually expanded. During 2008-09 to 2011-12, 29 new countries have been included within the ambit of FMS. The scope under other schemes, *viz.*, the Market Linked Focus Product Scheme (MLFPS) has also been expanded. The coverage of FMS, Special FMS and Market-Linked Focus Product Scheme was further broadened in 2012-13 (June 2012 and December 2012).

With increasing policy attention to explore new export markets in EMDEs, the high growth destinations, such as East Asian and South-East Asian economies like China, Singapore and Hong Kong have dominated the India's exports scenario with the third, fourth and fifth positions in recent years. Not only that United Arab Emirates has emerged the top destination for India's exports, exports to other EMDEs, Brazil, Indonesia and Saudi Arabia have also increased significantly over the years.

Table 4 : Growth Performance of Major Trade Partner Economies

(Per cent)

Period	Q1-2011	Q2-2011	Q3-2011	Q4-2011	Q1-2012	Q2-2012	Q3-2012	Q4-2012
Country								
Japan	0.2	-1.7	-0.5	-0.1	3.3	3.9	0.4	0.1
Euro area (17 countries)	2.4	1.6	1.3	0.6	-0.1	-0.5	-0.6	-0.9
United States	1.8	1.9	1.6	2.0	2.4	2.1	2.6	1.5
China	9.4	9.6	9.7	9.1	8.1	7.6	7.4	7.9
Hong Kong	7.8	5.1	4.3	2.8	0.7	1.2	1.3	..
Singapore	9.7	1.6	6.0	3.6	1.5	2.3	0.0	1.5
Korea	4.0	3.5	3.7	3.4	2.9	2.3	1.5	1.6
Indonesia	6.6	6.5	6.6	6.4	6.4	6.3	6.2	6.1
Malaysia	5.0	4.3	5.7	5.2	5.1	5.6	5.2	..
Brazil	4.1	3.3	2.3	1.4	0.7	0.4	1.0	..
South Africa	4.0	3.7	3.2	3.0	2.4	2.8	2.6	..

.. : Not Available.

Note: Growth Rates are seasonally adjusted (except for Hong Kong, Singapore and Malaysia).

Source: OECD, Singstat database, Monthly Statistical Bulletin Bank Negara Malaysia.

percentage points in H1 of 2012-13 (13.1 percentage points in H1 of 2011-12). Similarly, the relative contribution of newly explored markets in Africa and Latin America in India's export growth also recorded a sharp decline in H1 of 2012-13. It implies that India's

Table 5: Region-wise Relative Weighted Variation in India's Export Growth

(Per cent)

	2010-11: H1	2010-11: H2	2011-12: H1	2011-12: H2	2012-13: H1
EU	4.3	6.7	6.2	-0.2	-1.9
North America	3.6	3.1	5.2	3.1	1.7
Other OECD	1.9	1.5	1.5	1.2	0.0
OPEC	5.4	11.8	5.0	-0.8	2.2
Eastern Europe	0.6	0.6	0.3	0.1	0.2
Developing Asia	8.3	10.2	13.1	4.3	-2.4
Africa	2.9	3.2	2.1	1.6	1.0
Latin America	3.4	0.9	1.7	1.0	0.3
Others	5.2	6.6	5.4	-2.7	-7.6
Export Growth	**35.6**	**44.5**	**40.5**	**7.3**	**-6.4**

exports were impacted not only due to fragile economic and financial conditions in traditional markets like the US and the EU but also due to slowdown in relatively new markets in Asia, Africa and Latin America which appear to have been affected more by adverse spillovers from the advanced economies.

Imports (April-December 2012)

Merchandise imports during April-December 2012-13 stood at US$ 361.3 billion, compared with US$ 363.9 billion for the same period in 2011-12, registering a marginal decline of 0.7 per cent (35.2 per cent in April-December 2011-12). The fall in growth rate of imports was led by decline in import of gold and non-oil non-gold imports. While the decline in former reflects the impact of hike in customs duty during initial months of 2012-13, the latter largely reflects the lower import demand for export related items and overall slowdown in domestic economic activity. Oil imports stood at US$ 125.4 billion during this period in 2012-13 compared to US$ 111.0 billion a year ago. The trend in crude oil prices is shown in Table 6.

Table 6: Trends in crude oil prices

(US$/barrel)

Period	Dubai	Brent	WTI*	Indian Basket**
1	2	3	4	5
2005-06	53.4	58.0	59.9	55.7
2006-07	60.9	64.4	64.7	62.5
2007-08	77.3	82.3	82.3	79.2
2008-09	82.1	84.7	85.8	83.6
2009-10	69.6	69.8	70.6	69.8
2010-11	84.2	86.7	83.2	85.1
2011-12	109.4	113.9	96.8	111.9
2012-13 (Q1)	106.2	108.9	93.4	106.9
2012-13 (Q2)	106.2	110.0	92.2	107.4
2012-13 (Q3)	107.2	110.5	88.1	108.3

* West Texas Intermediate

** the composition of Indian Basket of Crude represents Average of Oman & Dubai for sour grades and Brent (Dated) for sweet grade in the ratio of 65.2: 34.8 w.e.f April 1, 2011.

Sources: International Monetary Fund, International Financial Statistics: World Gem data & commodity: Ministry of Petroleum and Natural Gas, Government of India.

Commodity-wise and Destination-wise Imports (April-September 2012-13)

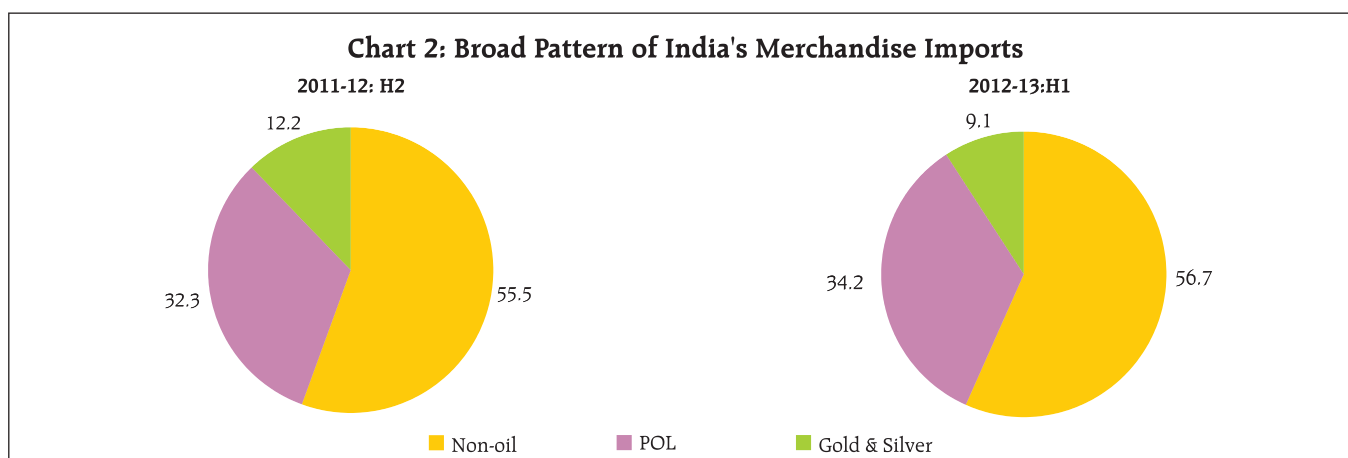
Commodity wise import data show that in H1 of 2012-13 the import of petroleum, oil and lubricants (POL), which constituted nearly 34 per cent of total merchandise imports, grew at 5.8 per cent in H1 of 2012-13 (Table 7 and Chart 2). Notwithstanding a decline in international price of crude oil (Indian basket) by 3.6 per cent during April-September 2012, a positive growth in POL imports essentially reflects rise in quantum terms. Import demand for capital goods and export related goods contracted mainly due to

Table 7: Imports of Principal Commodities

(Per cent)

Commodity/Group	2011-12	2011-12: H1	2012-13: H1	2011-12: H1	2011-12: H2	2012-13: H1
	Percentage Shares			Weighted Contribution to Import Growth		
1	2	3	4	5	6	7
1. Petroleum, Crude and Products	31.7	31.1	34.2	14.6	12.0	1.8
2. Capital Goods	20.3	19.8	19	6.2	4.9	-1.5
3. Gold and Silver	12.5	13	9.1	7.6	2.9	-4.2
4. Organic and Inorganic Chemicals	3.9	3.9	4.1	1.1	0.9	0.1
5. Coal, Coke and Briquettes, *etc.*	3.6	3.9	3.5	2.0	2.2	-0.5
6. Fertilisers	2.4	1.9	2.1	0.1	2.2	0.2
7. Metalliferrous Ores, Metal Scrap, *etc.*	2.7	2.8	3	1.3	0.7	0.1
8. Iron and Steel	2.5	2.3	2.4	0.1	0.7	0.0
9. Pearls, Precious and Semi-Precious Stones	5.7	6.5	4.2	0.5	-3.6	-2.5
10. Others	14.7	14.8	18.4	4.5	4.2	2.9
Total Imports	**100**	**100**	**100**	**38.1**	**27.1**	**-4.0**

Source: Based on DGCI&S data.



lower investment activity and sluggish export demand. Among capital goods, imports of 'machine tools', 'machinery (both electrical and non electrical)', 'transport equipment' and 'electronic goods' recorded a lower growth. Imports of gold and silver declined by 32.6 per cent in H1 of 2012-13, compared to a rise of 74.5 per cent in H1 of 2011-12 perhaps partly due to initial response to increase in customs duty of gold in January and March 2012.[1] Among the export related items, imports of pearl precious semi-precious stones and textile yarn have been affected due to fall in global demand.

The data pertaining to country-wise imports reflects the fact that in H1 of 2012-13, China continues to be the largest import source for India with a share of 11.9 per cent of total merchandise imports, followed by the UAE and Saudi Arabia with respective shares of 8.4 per cent and 6.8 per cent. The shares of all these countries in India's imports have increased in H1 of 2012-13. Despite a fall in the imports from the USA and Switzerland in H1 of 2012-13, these countries continued to be a significant source for India's imports accounting for 5.2 per cent and 4.6 per cent, respectively of total merchandise imports. Decline in imports from EU led to a fall in its share in India's total merchandise imports from 12.1 per cent in H1 of 2011-12 to 11.1 per cent in H1 of 2012-13 (Table 8).

[1] In January 2013, the customs duty on import of gold was increased further to 6 per cent from 4 per cent.

Trade Deficit

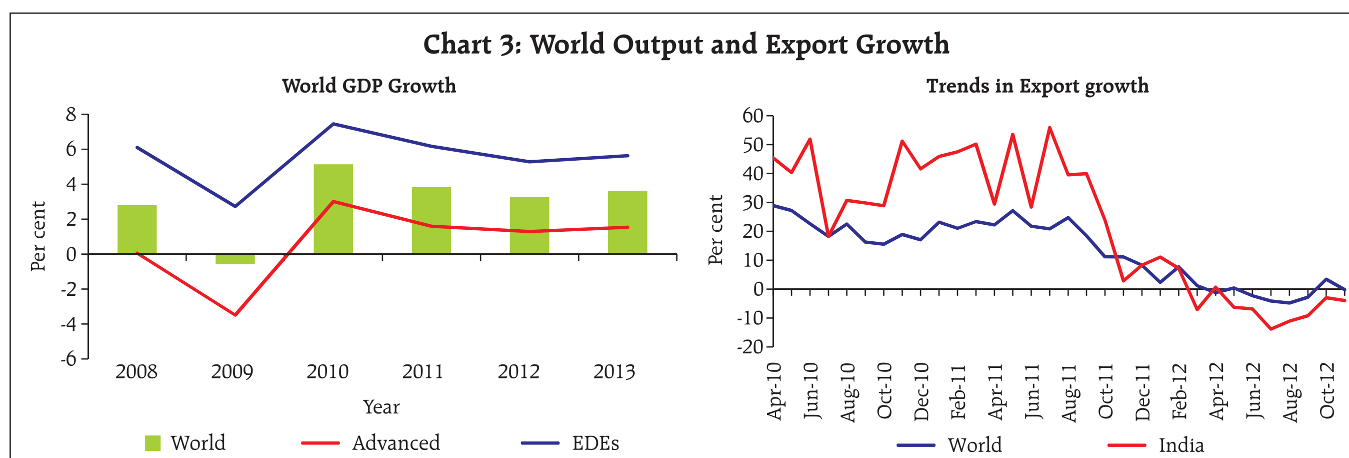
Owing to a sharper contraction in merchandise exports than imports, the trade deficit widened from US$ 137.3 billion in April-December 2011-12 to US$ 147.2 billion in April-December 2012-13. Net oil imports continued to be a major drag on India's trade deficit

Table 8: Shares of Groups/Countries in India's Imports

(Percentage Shares)

Region/Country	2010-11	2011-12	2011-12	2012-13
	April-March		April-September	
1	2	3	4	5
I. OECD Countries	30.6	30.2	30.1	26.9
EU	12.0	11.9	12.1	11.1
France	1.0	1.9	0.8	0.9
Germany	3.2	3.3	3.3	3.1
UK	1.5	1.6	1.6	1.4
North America	6.0	5.6	5.6	5.7
US	5.4	5.0	5.1	5.2
Asia and Oceania	5.4	5.7	5.7	5.2
Other OECD Countries	7.2	7	6.7	4.9
II. OPEC	33.6	35.5	34.9	39
III. Eastern Europe	1.5	1.7	1.4	1.9
IV. Developing Countries	33.0	32.3	33.2	31.9
Asia	27.1	25.6	26.6	25.3
SAARC	0.6	0.5	0.6	0.6
Other Asian Developing Countries	26.5	25.3	26.1	24.7
of which:				
People's Republic of China	11.8	11.8	11.8	11.9
Africa	3.6	4	4.2	3.8
Latin America	2.4	2.4	2.4	2.9
V. Others / Unspecified	1.3	0.3	0.4	0.3
Total	**100**	**100**	**100**	**100**

Source: Compiled from DGCI&S data.



implying large domestic energy deficit. Net oil imports accounted for 60.5 per cent of total trade deficit during April-December 2012 as compared with 50.0 per cent during April-December 2011.

II. Global Trade

The growth in world trade volume showed substantial moderation in 2012 as both advanced and emerging market economies were impacted due to trade inter-linkages. Deterioration in India's export performance was more pronounced than that of total world exports. Going forward, the world growth is projected to increase marginally during 2013 on the back of somewhat diminished risks to growth in the euro area and the United States. Accordingly, the world trade prospects may improve gradually and the IMF also projects a higher growth in world trade volume at 3.8 per cent in 2013 as compared with 2.8 per cent in 2012 (Chart 3).

A cross-country comparison based on available data upto Q2 shows that most of the advanced economies and EMDEs have witnessed either decline or decelerated growth in exports. However, among these economies (barring Indonesia), decline was more pronounced in case of India. India's share in world exports also declined marginally (Table 9).

Table 9: Export Growth and Shares in World Exports: Cross-Country Comparison

(Per cent)

Region/Country	2010-11	2011-12	Q2:2011-12	Q2:2012-13	2010-11	2011-12	Q2:2011-12	Q2:2012-13
	Growth Rates				Share			
	1	2	3	4	5	6	7	8
World	**21.0**	**14.2**	**21.8**	**-4.2**	**100.0**	**100.0**	**100.0**	**100.0**
Advanced economies	**17.3**	**11.5**	**17.9**	**-5.8**	**60.7**	**59.2**	**58.5**	**57.5**
United States	20.4	13.3	17.5	1.1	8.4	8.3	8.1	8.5
France	8.2	9.5	14.2	-7.6	3.4	3.2	3.0	2.9
Germany	12.9	12.4	20.0	-8.1	8.3	8.1	8.1	7.8
Japan	24.1	4.3	10.9	-9.1	5.0	4.5	4.7	4.5
EDEs	27.4	18.1	27.8	-1.0	39.7	41.1	42.3	43.7
Singapore	27.3	11.9	15.9	-5.8	2.3	2.3	2.3	2.3
China, P.R.: Mainland	30.6	16.1	20.6	4.5	10.4	10.6	11.2	12.2
India	**40.5**	**21.3**	**44.7**	**-10.1**	**1.6**	**1.7**	**1.7**	**1.6**
Indonesia	29.1	20.6	31.7	-12.9	1.1	1.1	1.1	1.0
Korea, Republic of	27.2	12.7	21.4	-5.7	3.1	3.1	3.0	3.0
Malaysia	20.1	11.4	16.7	-4.7	1.3	1.3	1.3	1.3
Thailand	26.0	6.9	26.9	-6.4	1.3	1.2	1.4	1.3

Source: International Financial Statistics, IMF.

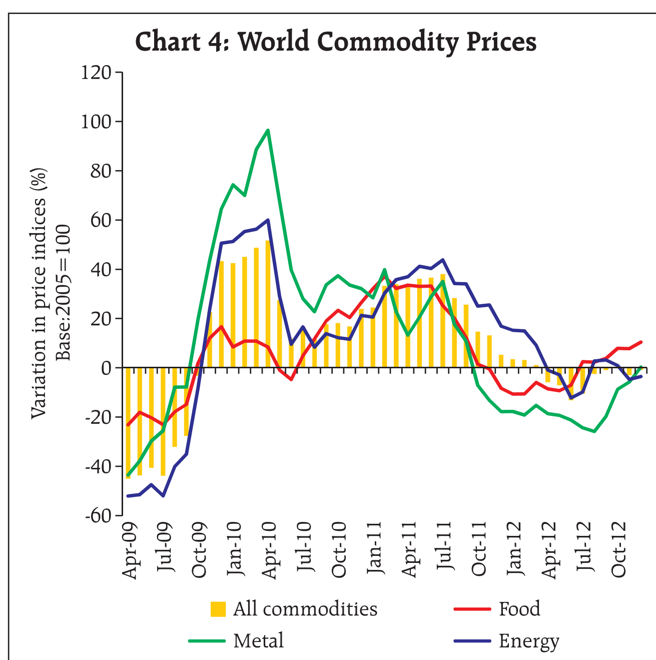
International Commodity Prices

In 2012, the movements in commodity prices have been somewhat erratic reflecting major global events. For instance, price movements in the first half of 2012 witnessed easing of commodity prices especially energy and metals as European sovereign debt troubles intensified and emerging economies, especially China, showed deceleration in growth (Chart 4). However, price pressures were distinctly upward in the second half of the year. Upward pressure in the international crude oil prices emanated in the aftermath of EU embargo on Iranian oil imports in July 2012 and also due to persisting political instability in several oil-producing countries in the Middle East. In addition, renewed monetary policy easing by the central banks of the EU and the US as well as weakness of the US dollar caused rebound in other industrial commodities. Upward pressure in food prices was mainly on account of hot weather and dry conditions in the US, Eastern Europe, and Central Asia which reduced maize and wheat output in these areas.

III. Outlook

Going forward, improvement in India's export would largely depend on durable recovery in both advanced and EMDEs. Although global growth concerns have diminished somewhat in recent months, immediate recovery in the world economy cannot be expected. A broad set of indicators for global industrial production and trade suggests that global growth has not strengthened further. Recognising the lacklustre performance of export sector due to global factors, the government announced second round of export promotion measures on December 26, 2012. These mainly included (i) extension of interest subvention scheme for select employment oriented sectors (including SMEs in all sectors) upto end-March 2014, (ii) introduction of "pilot scheme" of 2 per cent interest subvention for project exports through EXIM Bank for countries of SAARC region, (iii) broadening the scope of Focus Market Scheme and Special Focus Market Scheme, Market Linked Focus Product Scheme and (iv) incentive on incremental exports to the US, EU and countries of Asia during the period January-March 2013 over the base period. In January 2013, the Reserve Bank allowed swap facility for expansion of export credit in foreign currency. Under the swap arrangement, a bank can buy US Dollars, up to its eligible swap limit, from the Reserve Bank and simultaneously sell the same amount of US Dollar forward as per the term of the swap at the prevailing market rates for swaps of similar tenor. At the end of the swap term, the bank will exchange with the Reserve Bank the US Dollars against Rupee. The Reserve Bank had enhanced the period of realisation and repatriation of proceeds representing the full export value of goods or software exported, from six months to twelve months from the date of export which has been further extended up to March 31, 2013.

Chart 4: World Commodity Prices



Notwithstanding these measures, quick recovery in exports to major trading partners may not be imminent unless growth in both advanced and EMDEs picks up. To curb demand for some of major import items, the government has announced certain measures. For instance, the customs duty on gold was raised further from 4 per cent to 6 per cent in January 2013. Similarly, government has allowed oil marketing companies to gradually raise the retail diesel prices. The impact of such measures on India's overall trade deficit is yet to be seen and can be expected in the medium term, provided global outlook also improves significantly.

North-East Monsoon 2012: An Overview (October - December) *

The North-East monsoon during October-December 2012 was 21 per cent below its long period average (LPA). Though deficient, the shortfall in rainfall during the season was less compared with the deficiencies witnessed in recent years. The overall production of rabi foodgrains in 2012-13 is estimated marginally lower at 125.5 million tonnes (128.1 million tonnes in 2011-12). At end of the season, area coverage under rabi crops was around 101 per cent of normal, and marginally higher than the previous year. Live storage to total storage capacity at 37 per cent as on March 14, 2013 for 84 major reservoirs is comparable with the previous year.

Introduction

North-East monsoon which occurs during October-December, also called the post monsoon rainfall, is an important determinant of *rabi* crop production since it coincides with *rabi* sowing. The significance of North-East monsoon can be gauged further from the fact that wheat is a *rabi* crop and around 63 per cent of all pulses and 36 per cent of oilseeds are produced during *rabi* season every year. This article reviews the performance of North-East monsoon during October-December 2012.

An Overview: North-East Monsoon 2012

Compared with the previous year when the North-East monsoon was around 48 per cent below LPA, a 21 per cent departure of rainfall in the current season from its normal has been relatively lower. The production of *rabi* pulses is estimated to record an increase of around 10 per cent to 12.1 million tonnes (11.0 million tonnes in 2011-12) in 2012-13 (Table 1).

Table 1: Production of *Rabi* Crops During Years of Deficit North-East Monsoon

(Per cent)

Years	Deviations in North-East Monsoon	Growth in *Rabi* Foodgrains (per cent)	Growth in Wheat (per cent)	Growth in *Rabi* Pulses (per cent)	Growth in *Rabi* Oilseeds (per cent)
1	2	3	4	5	6
2012-13@	-21	-2.0	-2.7	10.0	9.9
2011-12	-48	3.6	9.2	-0.9	-13.7
2008-09	-31	5.9	2.7	18.2	9.6
2007-08	-32	2.9	3.6	-11.1	-12.0
2006-07	-21	8.1	9.3	10.3	-8.3
2004-05	-11	-1.2	-4.9	-3.8	19.9
2002-03	-33	-13.1	-9.6	-18.2	-21.2

@: Second Advance Estimates.
Source: India Meteorological Department and Ministry of Agriculture, GoI.

In fact, production of *rabi* pulses for the year is poised to attain record high. This is significant given the inadequacy of domestic supply of pulses.

Cumulative Rainfall

At all-India level, cumulative rainfall recorded during October-December 2012 measured 100.6 mm as against the normal of 127.2 mm, implying a deficiency of around 21 per cent. Twenty one (21) out of thirty six (36) sub-divisions of the country received deficient/scanty rainfall. However, some sub-divisions of the peninsula and eastern region received normal to excess rainfall.

Temporal Distribution

Monthly

Five sub-divisions in the south peninsula, called the core region *viz.*, Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu & Puducherry, South Interior Karnataka and Kerala, in general receive more rainfall during October-December 2012 compared with the rest of the country. During October-December 2012, cumulative rainfall in these five sub-divisions was 93 per cent of LPA (-7 per cent deviation) as against 79 per cent (-21 per cent deviation) for the country as a whole (Table 2). The cumulative monthly distribution of

* Prepared in the Development Studies Division, Department of Economic and Policy Research, Reserve Bank of India.

Table 2: Cumulative Rainfall: Monthly - All India

(in mm)

Region	2012			2011
	Actual	Normal	Deviation (%)	Deviation (%)
1	2	3	4	5
October	58.3	80.6	-28.0	-52.2
November	32.9	29.7	11.0	-30.3
December	9.4	16.8	-44.0	-55.4
Northeast Monsoon	100.6	127.2	-21.0	-48.3

mm: Millimeters
Source: India Meteorological Department.

rainfall over these 5 sub-divisions was 92 per cent, 129 per cent and 57 per cent, respectively, of LPA during October, November and December 2012.

Weekly

At all-India level, on a weekly basis, rainfall was below normal throughout the season barring one week at the beginning of the season and a week during mid-December (Chart I.a). Accordingly, the weekly cumulative also remained below LPA for most part of the period (Chart I.b).

Spatial Distribution

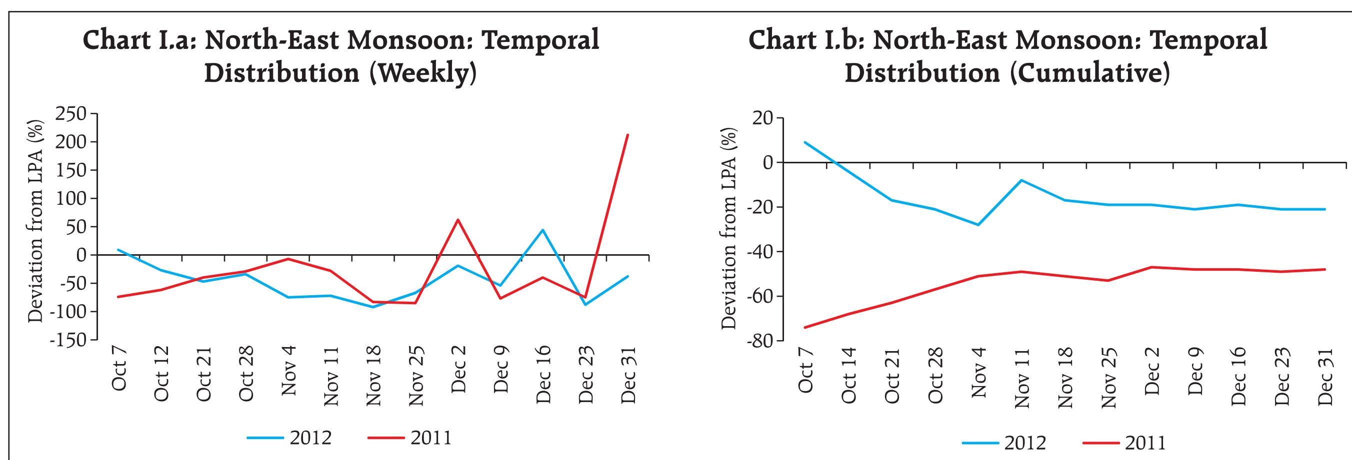
Coastal Andhra Pradesh within the core region received excess rainfall while Rayalaseema and Tamil Nadu & Puducherry received normal rainfall, and South Interior Karnataka and Kerala received deficient rainfall. Outside of the core region, some parts in eastern/north eastern region and parts of Central India on the other hand received excess or normal rainfall.

Subdued rainfall during the period has been reflected in the spatial distribution of precipitation over the meteorological sub-divisions spread across the country. Of the 36 meteorological sub-divisions, cumulative rainfall was excess in 2 and normal in 13 (1 and 6 in the corresponding period last year), deficient in 9 and scanty in 12 sub-divisions (5 and 23 last year)[1]. However, there was no sub-division with nil rainfall during the current season against 1 last year (Chart II, Table 3 and Statement I).

During the last ten years there were six years when North-East rainfall was deficient with the most severe deficiency being during 2011 (Table 4).

District wise

District-wise, out of 623 meteorological districts for which data were available, 31 per cent of the meteorological districts received excess/normal rainfall and the remaining 69 per cent received deficient/scanty/no rainfall during the season (Statement II). The corresponding figures for the previous year were 13 per cent and 87 per cent, respectively.



[1] Excess: + 20 per cent or more; Normal: +19 per cent to –19 per cent; Deficient: – 20 per cent to – 59 per cent; Scanty: – 60 per cent to – 99 per cent; No Rain: – 100 per cent (All with respect to the Long Period Average).

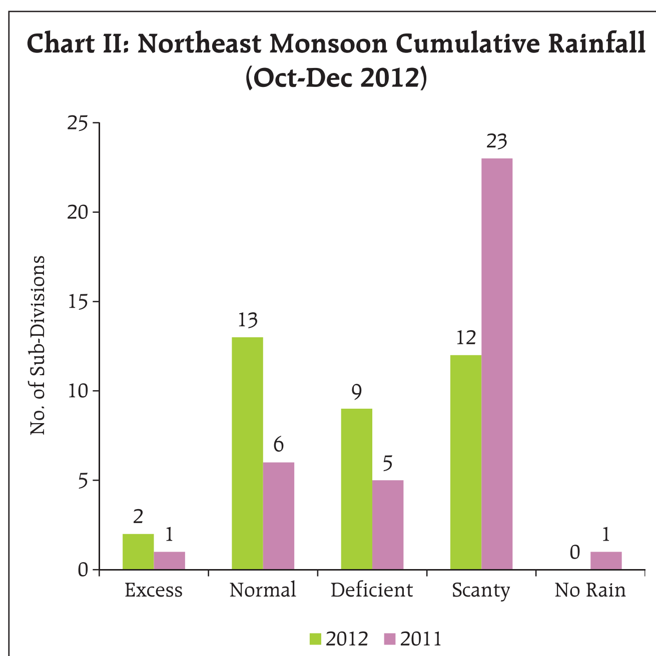


Table 4: North-East Monsoon: Cumulative Rainfall

Year	Cumulative Rainfall: Above (+)/ Below (-) Normal (per cent)	Rainfall			
		Excess	Normal	Deficient	Scanty/ No Rain
		Number of Sub-Divisions (Total=36)			
1	2	3	4	5	6
2002	-33	3	7	12	14
2003	8	9	9	6	12
2004	-11	8	10	17	1
2005	10	11	6	5	14
2006	-21	3	6	14	13
2007	-32	2	7	9	18
2008	-31	2	4	15	15
2009	8	13	10	9	4
2010	21	18	7	10	1
2011	-48	1	6	5	24
2012	-21	2	13	9	12

Source: India Meteorological Department.

Reservoir Status

The Central Water Commission monitors total live water storage in 84 major reservoirs of the country, having full reservoir level of 154.421 billion cubic meters (BCM) that accounts for around 67 per cent of the total reservoir capacity of the country. Rainfall deficiency in South-West monsoon 2012 was reflected in the lower level of water in these reservoirs at the beginning of *rabi* season 2012. Live to total capacity in these reservoirs at end-September 2012 was 74 per cent as against 87 per cent the previous year. Water in these reservoirs continued to remain below the previous year during most part of the North-East monsoon period. The live to total capacity ratio at end-December 2012 was around 59 per cent as against 62 per cent in the previous year (Table 5). As on March 14, 2013, total live storage in 84 major reservoirs was 37 per cent of the full reservoir level (FRL) as compared with 38 per cent a year ago.

Table 3: Distribution of sub-divisions according to category of rainfall

Category of Rainfall	Sub-Division
1	2
Excess	Coastal Andhra Pradesh, Telangana
Normal	Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Gangetic West Bengal, Orissa, Jharkhand, Konkan & Goa, Madhya Maharashtra, Chhattisgarh, Rayalaseema, Tamil Nadu & Puducherry, Coastal Karnataka and North Interior Karnataka
Deficient	'Nagaland, Manipur, Mizoram & Tripura', Sub-Himalayan West Bengal and Sikkim, Bihar, Jammu & Kashmir, Marathwada, Vidarbha, South Interior Karnataka, Kerala and Lakshadweep
Scanty	East Uttar Pradesh, West Uttar Pradesh, Uttarakhand, Haryana, Chandigarh and Delhi, Punjab, Himachal Pradesh, West Rajasthan, East Rajasthan, West Madhya Pradesh, East Madhya Pradesh, and Saurashtra & Kutch, Gujarat Region, Daman, Dadra & Nagar Haveli
No Rain	Nil

Source: India Meteorological Department.

Table 5: Reservoir Status

Status	End-September			End-December		
	2010	2011	2012	2010	2011	2012
1	2	3	4	5	6	7
Total Live Storage (BCM)	114.45	131.49	115.00	104.68	94.38	91.43
Percentage of Live Capacity at FRL	75	87	74	69	62	59

BCM: Billion Cubic Meters. FRL: Full Reservoir Level.
Source: Central Water Commission.

Progress of Sowing

Despite deficiency of rainfall during October–December 2012, area coverage under all *rabi* crops at end of the season was marginally higher than the corresponding period last year. However, area coverage under wheat and rice continued to remain slightly lower than the level attained last year (Table 6).

Estimates of Agricultural Production: 2012-13

Production of foodgrains during 2012-13, as per the Second Advance Estimates, is placed at 250.1 million tonnes, 3.5 per cent lower than that of 259.3 million tonnes during 2011-12. Production of all crops other than pulses is estimated to decline during 2012-13, reflecting largely the impact of rainfall deficiency during the South-West monsoon 2012. Production of sugarcane is also estimated to have declined during the current year (Table 7).

Table 6: *Rabi* Sowing - 2012-13

(Million hectares)

Crop Name	Normal as of date	End of Season		Percentage	
		2012	2013	Over 2012	of Normal
1	2	3	4	5	6
Foodgrains	**51.8**	**52.7**	**53.3**	**1.1**	**102.9**
Wheat	28.3	29.9	29.4	-1.7	103.9
Rice	4.5	3.9	3.8	-2.6	84.4
Coarse Cereals	6.3	5.7	5.9	3.5	93.7
Pulses	12.7	13.3	14.2	6.8	111.8
Oilseed	**9.2**	**7.9**	**8.3**	**5.1**	**90.2**
All- Crops	**61.0**	**60.6**	**61.6**	**1.7**	**101.0**

Source: Crops & TMOP Divisions, DAC

Table 7: Agricultural Production - 2012-13

(Million Tonnes)

Crop	2011-12 Final Estimates	2012-13 2nd Advance Estimates	Percentage Variations 2012-13
1	2	3	4
Foodgrains	**259.3**	**250.1**	**-3.5**
Rice	105.3	101.8	-3.3
Wheat	94.9	92.3	-2.7
Coarse Cereals	42.0	38.5	-8.3
Pulses	17.1	17.6	2.9
Oilseeds	**3.0**	**2.9**	**-3.3**
Cotton#	3.5	3.4	-2.9
Jute & Mesta##	1.1	1.1	0.0
Sugarcane (Cane)	36.1	33.5	-7.2

#: Lakh bales of 170 kgs. each
#: Lakh bales of 180 kgs. each

Conclusion

The North-East monsoon during October-December 2012 was 21 per cent below normal as against 48 per cent below normal in the previous year. The production of most agricultural crops, with the exception of pulses and jute & mesta is estimated to record a decline during 2012-13. Agriculture sector is, therefore, likely to witness lower growth in 2012-13 as compared with 2011-12.

Statement I: Basic Rainfall Data (Cumulative)

Sub-Divisions	Rainfall for the period from October 1 to December 31, 2012				Rainfall for the period from October 1 to December 31, 2011			
	Actual (mm)	Normal (mm)	% deviation from Normal		Actual (mm)	Normal (mm)	% deviation from Normal	
1 Andaman & Nicobar Islands	665.2	695.9	-4.4	N	556.2	695.9	-20.1	D
2 Arunachal Pradesh	224.4	267.2	-16.0	N	81.1	267.2	-69.6	S
3 Assam & Meghalaya	181.3	195.0	-7.0	N	51.7	195.0	-73.5	S
4 Nagaland, Manipur, Mizoram & Tripura	181.2	243.0	-25.4	D	79.9	243.0	-67.1	S
5 Sub-Himalayan West Bengal and Sikkim	148.6	185.3	-19.8	D	64.8	185.3	-65.0	S
6 Gangetic West Bengal	134.0	160.1	-16.3	N	29.5	160.1	-81.6	S
7 Odisha	147.6	144.1	2.4	N	24.4	144.1	-83.1	S
8 Jharkhand	81.3	91.6	-11.2	N	25.3	91.6	-72.4	S
9 Bihar	44.4	77.5	-42.7	D	10.3	77.5	-86.7	S
10 East Uttar Pradesh	2.5	60.4	-95.9	S	1.1	60.4	-98.2	S
11 West Uttar Pradesh	3.9	54.4	-92.8	S	0.5	54.4	-99.1	S
12 Uttarakhand	32.6	89.6	-63.6	S	10.5	89.6	-88.3	S
13 Haryana, Chandigarh & Delhi	7.6	29.4	-74.1	S	0.2	29.4	-99.3	S
14 Punjab	11.3	41.1	-72.5	S	4.1	41.0	-90.0	S
15 Himachal Pradesh	41.4	108.2	-61.7	S	17.9	108.2	-83.5	S
16 Jammu & Kashmir	95.0	131.8	-27.9	D	73.2	131.8	-44.5	D
17 West Rajasthan	3.2	9.6	-66.7	S	0.1	9.5	-99.5	S
18 East Rajasthan	0.3	27.6	-98.9	S	0.0	27.6	-100.0	NR
19 West Madhya Pradesh	3.6	53.1	-93.2	S	0.5	53.1	-99.1	S
20 East Madhya Pradesh,	20.8	57.8	-64.0	S	1.6	57.8	-97.2	S
21 Gujarat Region, Daman, Dadra & Nagar Haveli	4.6	34.9	-86.8	S	2.4	34.9	-93.1	S
22 Saurashtra & Kutch	3.6	29.0	-87.0	S	3.4	29.0	-88.3	S
23 Konkan and Goa	175.5	148.6	18.1	N	121.1	148.6	-18.5	N
24 Madhya Maharashtra	95.1	107.8	-11.8	N	58.6	107.8	-45.6	D
25 Marathwada	72.2	101.6	-28.9	D	25.4	101.6	-75.0	S
26 Vidarbha	42.8	81.8	-47.7	D	4.3	81.8	-94.7	S
27 Chhattisgarh	65.3	76.9	-15.1	N	15.6	76.9	-79.7	S
28 Coastal Andhra Pradesh	435.2	327.4	32.9	E	179.3	327.4	-45.2	D
29 Telangana	145.1	119.3	21.6	E	17.4	119.3	-85.4	S
30 Rayalaseema	215.1	219.2	-1.9	N	178.2	219.2	-18.7	N
31 Tamil Nadu & Puducherry	367.7	438.2	-16.1	N	536.5	438.2	22.4	E
32 Coastal Karnataka	219.9	262.8	-16.3	N	257.2	262.8	-2.1	N
33 North Interior Karnataka	139.2	145.3	-4.2	N	80.8	145.3	-44.4	D
34 South Interior Karnataka	161.8	209.6	-22.8	D	208.4	209.6	-0.6	N
35 Kerala	312.3	480.7	-35.0	D	447.2	480.7	-7.0	N
36 Lakshadweep	167.3	333.6	-49.9	D	316.7	333.6	-5.1	N
E : Excess, *i.e.*,+20% or more			2.0				1.0	
N : Normal, *i.e.*,+19% to -19%			13.0				6.0	
D : Deficient, *i.e.*,-20% to -59%			9.0				5.0	
S : Scanty, *i.e.*,-60% or less			12.0				23.0	
NR : No Rain, *i.e.*, -100%			0.0				1.0	
TOTAL			**36.0**				**36.0**	

mm: Millimetres
Source: India Meteorological Department.

Statement II: State-wise Distribution of No. of Districts with Excess, Normal, Deficient, Scanty and No Rainfall

S. No.	States	Period: October 1, 2012 to December 31, 2012						
		E	N	D	S	NR	ND	TOTAL
1	A & N Islands (UT)	0	2	1	0	0	0	3
2	Arunachal Pradesh	3	3	4	3	0	3	16
3	Assam	5	10	10	2	0	0	27
4	Meghalaya	2	3	1	0	0	1	7
5	Nagaland	0	1	4	1	0	5	11
6	Manipur	1	2	2	0	1	3	9
7	Mizoram	0	2	5	0	0	2	9
8	Tripura	0	3	1	0	0	0	4
9	Sikkim	0	1	0	3	0	0	4
10	West Bengal	4	9	6	0	0	0	19
11	Odisha	9	13	8	0	0	0	30
12	Jharkhand	7	4	2	6	5	0	24
13	Bihar	7	6	9	15	1	0	38
14	Uttar Pradesh	0	0	2	30	39	0	71
15	Uttarakhand	0	0	5	8	0	0	13
16	Haryana	0	0	4	14	3	0	21
17	Chandigarh (UT)	0	0	0	1	0	0	1
18	Delhi	0	0	3	6	0	0	9
19	Punjab	0	1	3	16	0	0	20
20	Himachal Pradesh	0	1	4	7	0	0	12
21	Jammu & Kashmir	2	7	7	4	0	2	22
22	Rajasthan	1	2	1	12	17	0	33
23	Madhya Pradesh	0	3	6	18	23	0	50
24	Gujarat	0	0	3	12	11	0	26
25	Dadra & Daman (UTs)	0	1	0	1	0	0	2
26	Diu (UT)	0	0	0	0	1	0	1
27	Goa	0	0	2	0	0	0	2
28	Maharashtra	5	11	12	7	0	0	35
29	Chhattisgarh	3	4	8	3	0	0	18
30	Andhra Pradesh	12	10	1	0	0	0	23
31	Tamil Nadu	0	13	19	0	0	0	32
32	Puducherry (UT)	0	1	1	0	0	2	4
33	Karnataka	1	17	11	1	0	0	30
34	Kerala	0	2	12	0	0	0	14
35	Lakshadweep (UT)	0	0	1	0	0	0	1
Total		**62**	**132**	**158**	**170**	**101**	**18**	**641**

E: Excess N: Normal D: Deficient
S: Scanty NR: No Rain ND: No Data
Source: India Meteorological Department.

*Investment Portfolio of Scheduled Commercial Banks: March 2012**

This article presents an analysis of the investment portfolio of scheduled commercial banks (excluding Regional Rural Banks) as at end-March 2012, based on annual Basic Statistical Return 5 (BSR-5)[1]. The investment portfolio covers investments in central and state government securities, securities other than government securities approved for the purpose of investments under the Indian Trusts Act, 1882, other domestic investments, foreign government securities and other foreign investments. Besides summary findings[2] of March 2012 survey, this article also presents comparable figures for select parameters over the period 2006 to 2012 based on previous studies published earlier.

Highlights

- *The outstanding investments of the scheduled commercial banks (SCBs) grew by 19.8 per cent in 2011-12 compared with 8.9 per cent in the previous year.*
- *Investment of SCBs in government securities increased by 23.1 per cent in 2011-12 compared to 9.1 per cent in other domestic securities. SCBs investment in securities of joint stock companies grew at 25.2 per cent in 2011-12 on top of 28.1 per cent growth in 2010-11, but investments in certificates of deposit and commercial papers declined by 8.0 per cent.*
- *The weighted average coupon rate of Central government securities held by banks increased by 4 bps to 7.85 per cent and that of state government securities increased by 14 bps to 7.87 per cent in 2011-12.*
- *The maturity profile of the Central government securities held by the SCBs showed that the share of securities with long-term maturities of more than 11 years declined to 13.2 per cent from 18.1 per cent in the previous year. Short-term holdings (maturing within one year) had a share of 21.0 per cent as at end-March 2012 as against 14.8 per cent as at end-March 2011, mainly due to steep increase in holdings of Treasury bills. In the case of foreign banks, Treasury bills constituted more than half of their holdings in government securities.*
- *About 44 per cent of SCBs holding in Central and state government dated securities (excluding T-bills) were with residual maturity of 6 to 11 years. The average remaining period of maturity reduced to 7.18 years as on March 31, 2012 from 7.37 years a year ago.*

Investment growth of SCBs accelerated in 2011-12

1. During 2011-12, the outstanding investments of the scheduled commercial banks (SCBs) grew by 19.8 per cent as compared with 8.9 per cent in the previous year. On the other hand, growth in deposits and credit of SCBs decelerated during 2011-12 compared with the higher growth witnessed in the previous year (Chart 1). Investment-Deposit ratio increased to 34.7 per cent as on March 31, 2012 from 33.2 per cent a year ago. Investment of SCBs in government securities increased by 23.1 per cent in 2011-12 compared to 9.1 per cent in other domestic securities. The portfolio choice reflected both risk aversion on the back of increase in NPAs and liquidity constrains due to higher dependence on borrowed funds[3].

2. A Major part of the incremental investment in 2011-12 was in government securities. As a result, the

* Prepared in the Banking Statistics Division of the Department of Statistics and Information Management. The previous article as at end-March 2011 was published in March 2012 issue of the Reserve Bank of India Bulletin.

[1] The BSR-5 return was introduced in the year 1972 as per the recommendations of the Committee on Banking Statistics constituted by the Reserve Bank in April 1972 under the chairmanship of Shri A. Raman. A detailed description of the coverage and contents of the BSR-5 return is given in the Annex.

[2] More detailed data is available in the Reserve Bank website '(URL: http://www.rbi.org.in)'.

[3] Chapter I (Perspectives on the Indian Banking Sector) and Chapter IV (Operations and Performance of Commercial Banks) – *Report on Trend and Progress of Banking in India 2011-12*

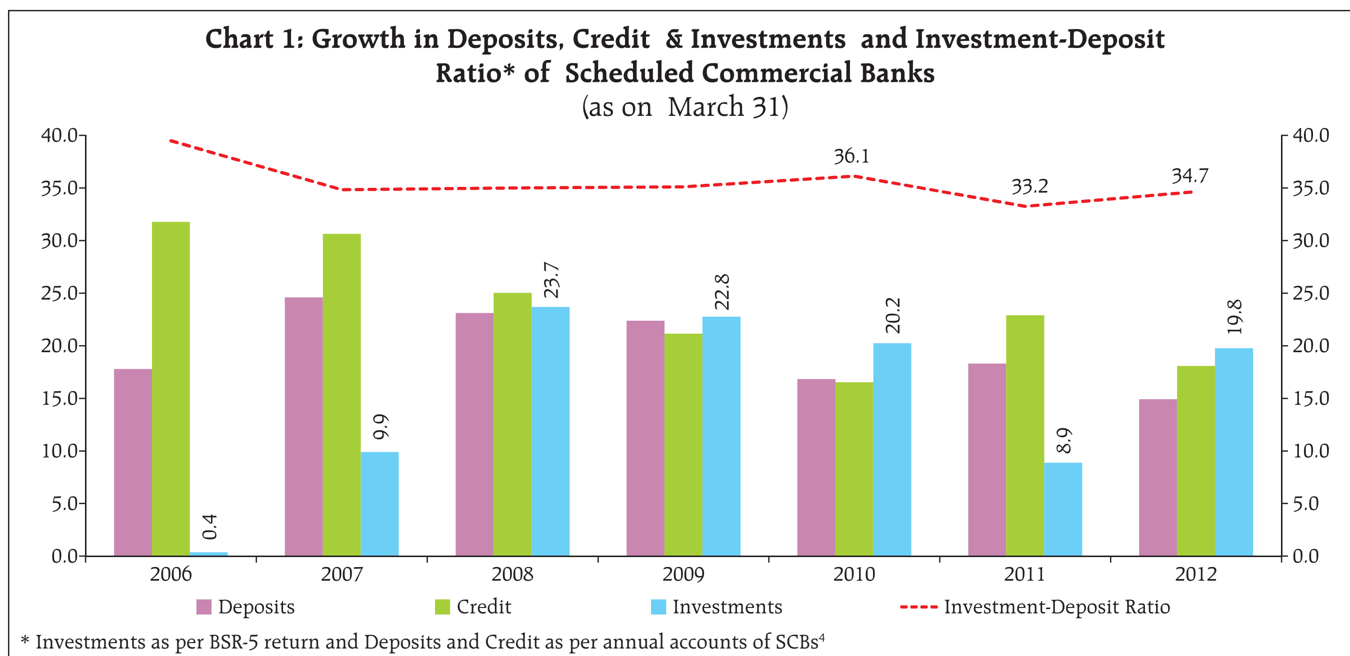


Chart 1: Growth in Deposits, Credit & Investments and Investment-Deposit Ratio* of Scheduled Commercial Banks
(as on March 31)

* Investments as per BSR-5 return and Deposits and Credit as per annual accounts of SCBs[4]

share of government securities in SCBs investment portfolio increased to 79.5 per cent in 2011-12 from 77.4 per cent in 2010-11 (Table 1). The share of the other domestic investments on the other hand decreased to 19.2 per cent in 2011-12 from 21.1 per cent in 2010-11. The investment preference of bank groups showed significant variations. Central government securities continued to be the preferred investment for all bank groups, but its share in total investments varied between 59.3 per cent (for private sector banks) to 69.4 per cent (for foreign banks). While state government securities were the second most preferred investment for public sector banks (PSBs), private and foreign banks preferred investment in other domestic securities.

Foreign banks' investment in SLR securities was much higher than the stipulated limit

3. The SCBs holding of SLR securities as at end of March 2012 was about 27.4 per cent of their NDTL, much higher than the prescribed SLR of 24 per cent (Chart 2). Foreign banks with their high investments

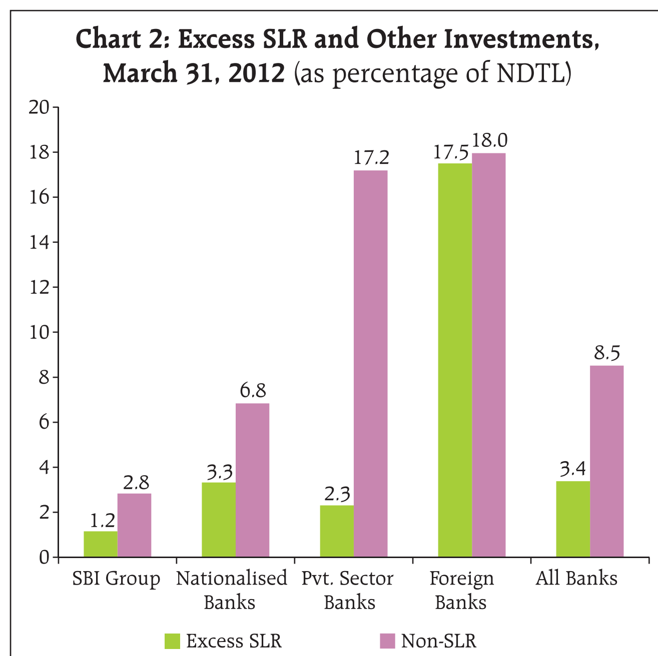
Table 1: Investment Portfolio of Scheduled Commercial Banks - Bank Group-wise
(as on March 31)

(Per cent)

Investment by Type of Securities	SBG		NBs		PSBs		FBs		ASCBs	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
1. Indian Government securities	81.8	89.4	84.2	84.5	61.1	65.1	71.9	69.6	77.4	79.5
i) Central Government securities	56.5	61.4	63.9	63.6	55.7	59.3	71.9	69.4	61.2	62.7
ii) State Government securities	25.3	28.0	20.3	20.9	5.4	5.8	-	0.2	16.2	16.8
2. Other Trustee securities	0.1	-	0.5	0.4	0.1	-	-	-	0.3	0.2
3. Other Domestic Investments	17.3	10.5	14.0	13.7	36.8	33.4	28.1	30.4	21.1	19.2
4. Foreign securities	-	-	-	0.2	0.2	0.1	-	-	0.1	0.2
5. Investment of Foreign Offices	0.8	-	1.2	1.2	1.8	1.3	-	-	1.2	0.9
Total (1 to 5)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

- : 'Nil or Negligible'
Note: SBG: State Bank group, NBs: Nationalised Banks, PSBs: Private Sector Banks, FBs: Foreign Banks and ASCBs: All Scheduled Commercial Banks

[4] Bank group-wise liabilities and assets of SCBs - Statistical Tables relating to banks in India



in central government securities reported excess SLR holding of about 17.5 per cent indicating their preference for low risk assets.

Share of non-SLR securities in investment was higher for private sector and foreign banks

4. The SCBs holding of non-SLR securities was about 8.5 per cent of their NDTL. Such investments were higher in the case of private sector banks (17.2 per cent) and foreign banks (18.0 per cent). About 38 per cent of non-SLR investments of private sector banks was in shares and debentures of joint stock companies. In the case of foreign banks, securities like CPs, CDs and FDs formed about 80 per cent of their non-SLR investments which showed their preference for short-term securities.

Investment pattern of SCBs in non-Government securities have been changing

5. The market value of SCBs investment in securities of joint stock companies grew at 25.2 per cent in 2011-12 on top of 28.1 per cent growth in 2010-11. Among securities of joint stock companies, SCBs preferred debentures (70.8 per cent) than shares (29.2 per cent). (Table 2). Investment of SCBs in bonds issued by public sector enterprises more than doubled in 2011-12. Bonds of Rural Electrification Corporation (REC) and Power Finance Corporation accounted for about three-fourth of SCBs investment in Bonds issued by the public sector enterprises (Table 3).

6. The SCBs' investment in certificates of deposit (CD) declined by 8.4 per cent in 2012 compared to an increase of 39.5 per cent in 2011. Its share in total investments of SCB's declined to 5.3 per cent from 6.9 per cent in 2011 (Chart 3). The decline in holding of CDs is mainly due to the steep increase in holdings of alternate short-term securities *viz.* GoI Treasury bills.

Table 2: Bank group-wise Investment in Shares and Debentures of Joint Stock Companies*

(as on March 31)

Amount in ₹ Million

	State Bank of India and its Associates		Nationalised Banks		Private Sector Banks		Foreign Banks		All Scheduled Commercial Banks	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
1. Shares (1.1 and 2.1)										
1.1 Face Value	45778 (19.0)	48119 (22.2)	92632 (23.4)	197570 (28.4)	72677 (13.4)	144790 (19.5)	650 (1.6)	212 (0.4)	211737 (17.4)	390691 (22.9)
1.2 Market value@	142838 (43.0)	119802 (45.6)	132356 (30.9)	189628 (29.2)	139521 (23.3)	203000 (25.5)	1167 (2.8)	339 (0.7)	415882 (29.7)	512768 (29.2)
2. Debentures (1.2 and 2.2)										
2.1 Face Value	195033 (81.0)	168461 (77.8)	303195 (76.6)	497493 (71.6)	468061 (86.6)	597703 (80.5)	41235 (98.4)	48442 (99.6)	1007524 (82.6)	1312099 (77.1)
2.2 Market value@	189263 (57.0)	142925 (54.4)	295656 (69.1)	458956 (70.8)	460239 (76.7)	592476 (74.5)	41233 (97.2)	48275 (99.3)	986392 (70.3)	1242632 (70.8)

* Includes public sector companies.
@ Investments in shares and debentures are at estimated realisable value where market value is not available.
Note: Figures in brackets indicate percentage share to total of shares and debentures

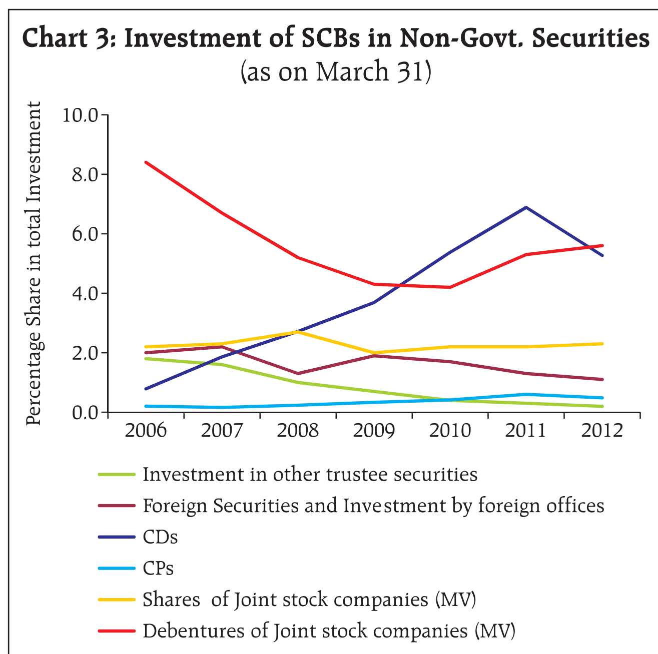
Table 3. Bank group-wise Investments in Bonds Issued by Public Sector Enterprises
(as on March 31)

(Amount in ₹ Million)

Public Sector Enterprises/Undertakings	State Bank of India and its Associates		Nationalised Banks		Private Sector Banks		Foreign Banks		All Scheduled Commercial Banks	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
	1	2	3	4	5	6	7	8	9	10
1. Indian Railway Finance Corporation (Railway Bonds)	800	1522	2222	4945	6080	12003	150	800	9252 (9.6)	19270 (9.6)
2. National Thermal Power Corporation (NTPC)	-	-	1320	1340	650	680	1950	381	3920 (4.1)	2401 (1.2)
3. Nuclear Power Corporation	200	100	2274	4167	4270	4765	-	-	6744 (7.0)	9032 (4.5)
4. Power Finance Corporation	3385	11607	8717	43004	17294.1	20230	4120	3705	33516 (35.0)	78546 (39.2)
5. Rural Electrification Corporation (REC)	12429	12561	9522	42594	10764	15464	1450	461	34165 (35.6)	71080 (35.5)
6. Housing & Urban Dev. Corp. (HUDCO)	639	1050	4043	10446	1004	5638	450	450	6136 (6.4)	17584 (8.8)
7. Others	445	445	0	363.4	1790	1430	-	-	2235 (2.3)	2218.4 (1.1)
Total	**17898**	**27285**	**28097**	**106859**	**41852**	**60210**	**8120**	**5797**	**95968 (100.0)**	**200130 (100.0)**

- : Nil or negligible
Note : Figures in brackets indicate percentages to total

The share of investment in debentures of Joint stock companies (Market value) in total SCBs' investment was showing a steady decline from 8.4 per cent in 2006 to 4.2 per cent in 2010, but thereafter it increased to 5.3 per cent in 2011 and 5.6 per cent in 2012. Fixed deposits were less preferred by SCBs in 2012 as their share in total investments declined to 0.7 per cent from 2.0 per cent in 2011.



Coupon Rates on Government Securities have increased

7. Distribution of banks' investments in central government securities according to coupon rate showed that there was a steady increase of securities in the coupon rate bracket of 6 to 8 per cent till the year 2010, but from 2011, the share of securities with coupon rate in the bracket of 8 to 10 per cent has shown an upward trend (Chart 4). The weighted average coupon rate[5] of central government securities held by banks increased to 7.85 per cent in 2012 from 7.81 per cent in 2011. This is in lne with the increase in the coupon rate of securities issued during the last two years.

8. As regards to banks' investments in state government securities, securities with coupon rate in the bracket of 6 to 8 per cent had a share of about 40

[5] Amount outstanding (Face value) is taken as weights.

Table 4: Investment Portfolio of Scheduled Commercail Banks over the period 2006 to 2012
(as on March 31)

(Amount in ₹ Million)

Type of Security	2006	2007	2008	2009	2010	2011	2012
Central Government Securities	5,478,967 (64.1)	6,184,563 (65.8)	7,725,646 (66.5)	9,205,788 (64.5)	10,606,494 (61.9)	11,423,294 (61.2)	14,018,641 (62.7)
State Government Securities	1,136,216 (13.3)	1,166,254 (12.4)	1,518,110 (13.1)	2,290,302 (16.1)	2,932,363 (17.1)	3,021,947 (16.2)	3,758,033 (16.8)
Investment in other trustee securities	149,937 (1.8)	149,668 (1.6)	115,572 (1.0)	98,968 (0.7)	63,952 (0.4)	53,318 (0.3)	44,366 (0.2)
Certificate of Deposits	67,159 (0.8)	174,536 (1.9)	315,476 (2.7)	525,717 (3.7)	922,150 (5.4)	1,286,022 (6.9)	1,178,576 (5.3)
Commercial Papers	17,412 (0.2)	15,150 (0.2)	27,650 (0.2)	47,710 (0.3)	71,184 (0.4)	112,224 (0.6)	107,973 (0.5)
Shares of Joint stock companies (MV)	191,384 (2.2)	212,199 (2.3)	314,912 (2.7)	287,141 (2.0)	381,037 (2.2)	415,882 (2.2)	512,768 (2.3)
Debentures of Joint stock companies (MV)	719,542 (8.4)	625,986 (6.7)	600,065 (5.2)	611,315 (4.3)	713,621 (4.2)	986,392 (5.3)	1,242,632 (5.6)
Foreign Securities and Investment by foreign offices	29,576 (2.0)	22,876 (2.2)	150,801 (1.3)	262,609 (1.9)	295,761 (1.7)	228,755 (1.3)	239,405 (1.1)
Others @	615,808 (7.2)	662,572 (7.0)	849,637 (7.2)	932,709 (6.5)	1,161,238 (6.7)	1,144,162 (6.0)	1,260,922 (5.5)
Total Investments	**8,546,573 (100.0)**	**9,393,387 (100.0)**	**11,618,224 (100.0)**	**14,262,448 (100.0)**	**17,147,800 (100.0)**	**18,671,997 (100.0)**	**22,363,316 (100.0)**

@ Investments in securities of Quasi-government bodies, MFs, FDs, Venture capital funds, *etc*

per cent of the investment during the period 2005-06 to 2010-11. It declined to 34 per cent in 2011-12. The share of the investment in the coupon rate bracket of 8 per cent to 10 per cent has shown an upward trend over the period (Chart 5), and in 2011-12 it contributed about 60 per cent of SCBs' investments in state government securities in tandem with the rising interest rate scenario. The weighted average coupon

Chart 4: Coupon Rate-wise Distribution of Investments of Scheduled Commercial Banks in Central Government Securities over the period

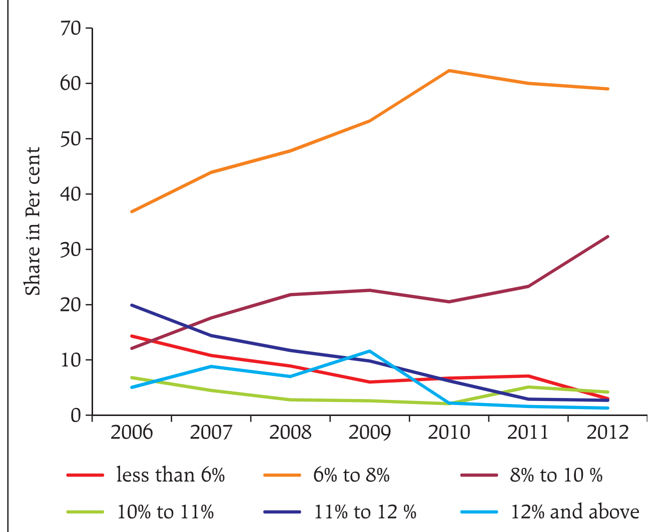
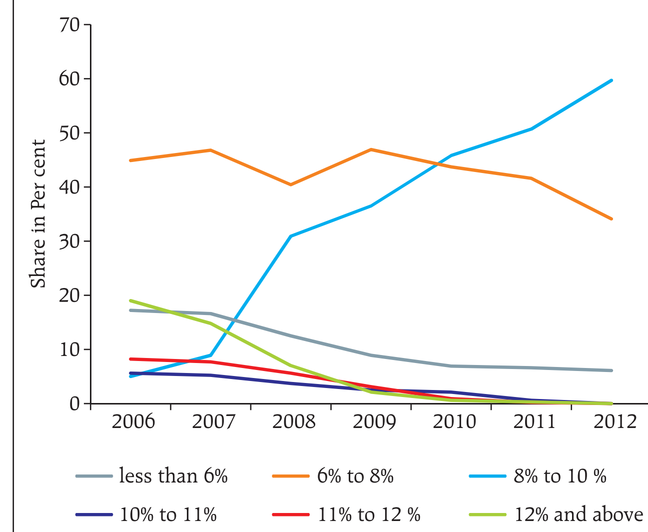


Chart 5: Coupon Rate-wise Distribution of Investments of Scheduled Commercial Banks in State Government Securities over the period



rate of state government securities held by banks increased to 7.87 per cent from 7.73 per cent as at the end of March 2011 in tandem with increase in average coupon rate of securities issued during the year.

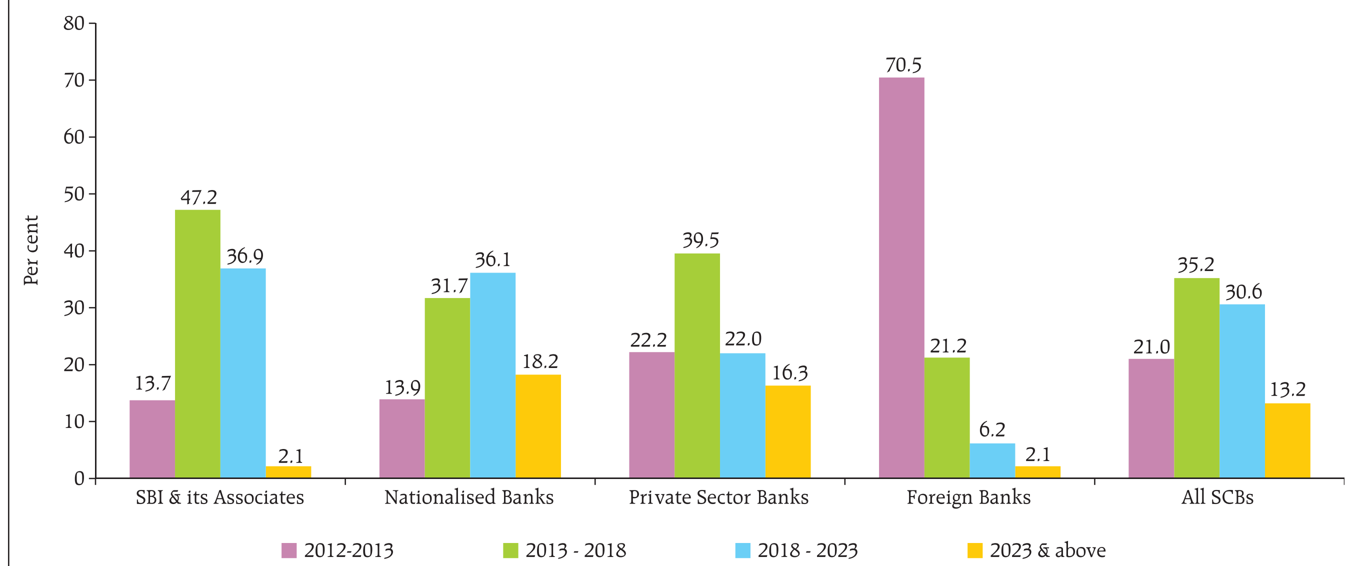
Holding in Government Securities with long-term maturity decreased

9. At all SCBs level, central government securities maturing in 'more than 1 year but less than 6 years' constituted the largest share (35.2 per cent), followed by the securities maturing in 'more than 6 years but less than 11 years' (30.6 per cent). Securities with long-term maturities of more than 11 years had a lower share of 13.2 per cent as at end-March 2012 (18.1 per cent in 2011). On the other hand, the share of securities with residual maturity of less than one year (including treasury bills) increased sharply to 21.0 per cent as at end-March 2012 from 14.8 per cent in the previous year. The change in maturity profile was influenced by yield and term structure of the issuance of government securities and open market operations of RBI.

10. SCB's holding of Treasury bills increased steeply by ₹785.85 billion (80.6 per cent) in 2012 on the back of increased issuance and firming up of yields in 2011-12. The incremental investment in T-bills formed about 30 per cent of the incremental investments in all central government securities. Higher investments in securities like T-bills helped the banks in parking short-term surplus gainfully as well as in managing asset-liability maturities (ALM), especially in view of the lower growth in deposits (14.9 per cent) and high growth in borrowings (24.4 per cent). Among bank groups, Foreign banks were the highest holders of T-Bills (40 per cent) followed by Private sector banks (27 per cent).

11. At bank group level, share of the holdings of central government securities in the maturity bucket 'April 2013 to March 2018' varied between 21.2 per cent for foreign banks and 47.2 per cent for state bank group. (Chart 6). The proportion of central government securities with maturity period '2018-2023' varied between 6.2 per cent for foreign banks and 36.9 per cent for state bank group. Nationalised banks and private sector banks were holding more long-term securities (maturity beyond March 2023) in their investment portfolio with respective shares of 18.2 per cent and 16.3 per cent, while in the case of state bank

Chart 6: Bank Group-wise Distribution of Maturity Period of Investments of Scheduled Commercial Banks in Central Government securities as on March 31, 2012



group and foreign banks such share was low at 2.1 per cent. Over 70 per cent of the investments of Foreign banks were in short-term securities with maturity less than one year, of which T-Bills alone had a share of 53.4 per cent.

12. As regards investments in state government securities by the SCBs, 23.6 per cent was due for maturing during April 2013 to March 2018 while 73.4 per cent had maturity during April 2018 to March 2023 (Chart 7). Private sector banks increased their holding in state government securities in the longer maturity bracket of 2018-2023. Foreign banks were having less exposure to state securities till 2011, but in 2012 they invested in some state government securities of long term maturity.

13. The Investment of SCBs in Central and state government securities, according to Residual Maturity as at end of March 2011 and 2012 is shown in Chart 8. Investments in securities with residual maturity of 7 to 8 years were the highest with a share of 15.0 per cent in total investments as on March 31, 2012. About 45 per cent of banks holding in Government Securities (excluding T-bills) were with residual maturity of 6 to 11 years. The average remaining period of maturity reduced to 7.18 years from 7.37 years as on March 31, 2011.

Share of private sector banks investment in State Government Securities increased

14. SCBs investments in State government securities increased by 24.4 per cent in 2012 as against 3.1 per cent in 2011. About 70 per cent of banks' SDL holding pertains to eight states with high SDP showing that banks prefer to hold to securities of relatively more developed states. While banks holding of state government securities increased sharply in 2012, their investments in all other state-level bodies declined.

15. Bank group-wise pattern of investment in the state-level securities showed that nationalised banks held the highest share at 61.9 per cent, followed by the state bank group at 29.6 per cent. Nationalised banks held a high share in investments in the state-level securities in most of the States/UTs, except in some of the north-eastern states namely Mizoram, Sikkim and Manipur, where State bank group remained invested with higher shares. Private sector banks's investment in state level securities increased at a higher rate of 36.9 per cent in 2012. As a result, the share of investment of private sector banks in state level securities increased to 8.3 per cent from 7.6 per cent, but these were mostly concentrated in securities of states with high SDP. Holdings of foreign banks in state-level securities remained negligible.

Chart 7: Bank Group-wise Distribution of Maturity Period of Investments of Scheduled Commercial Banks in State Government securities as on March 31, 2012

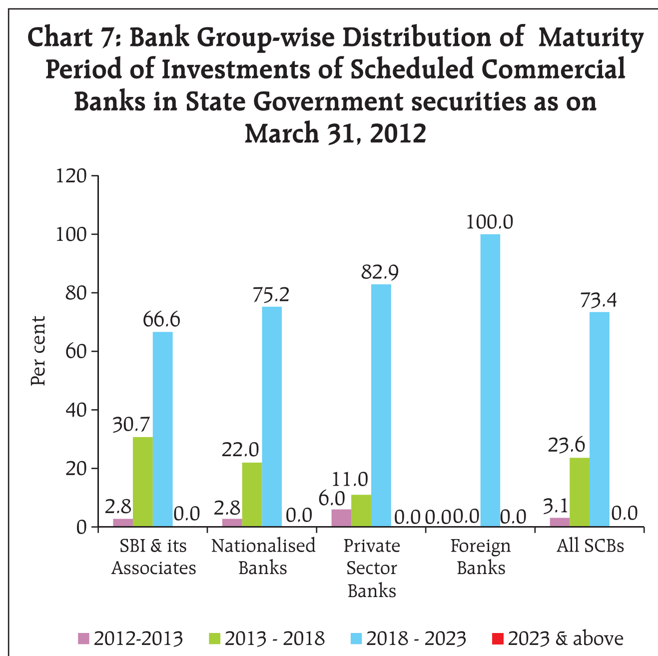
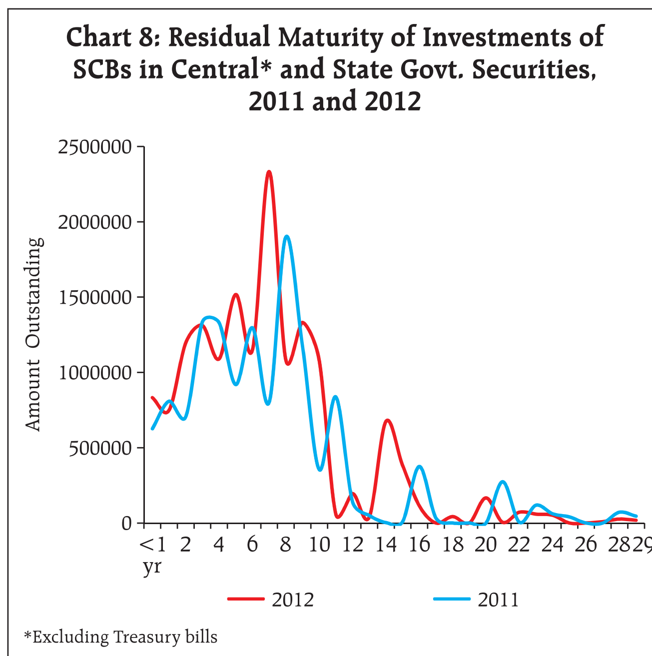


Chart 8: Residual Maturity of Investments of SCBs in Central* and State Govt. Securities, 2011 and 2012



*Excluding Treasury bills

Annex
Basic Statistical Return (BSR)-5

The analysis of investment portfolio of Scheduled Commercial Banks, excluding Regional Rural Banks, presented in this article is based on data furnished in the Basic Statistical Return (BSR)-5 as at end-March 2012 and covers 84 banks, *viz.,* 6 from the State Bank group[6], 20 from the Nationalised Banks group (including IDBI Ltd.), 20 Indian Private Sector Banks and 38 Foreign Banks operating in India. These banks accounted for 97.8 per cent of the total investments of all the SCBs[7] (including Regional Rural Banks) on the last reporting Friday of March 2012. Besides summary findings of March 2012 survey, this article also presents comparable figures for select parameters over the period 2006 to 2012, based on previous studies published earlier.

2. The BSR-5 return covers total investments of domestic banks including their investments abroad and the investments made in India by the foreign banks through their branches located in the country. These investments are classified into: (a) Indian government securities (*i.e.*, central and state government securities taken together), (b) Other trustee securities, (c) Other domestic investments and (d) Foreign investments. Other trustee securities are trustee securities, other than government securities, which are specially approved for investments purpose under the Indian Trusts Act, 1882; it includes securities/shares/bonds/debentures issued by major all-India bodies namely, Industrial Finance Corporation of India Ltd., National Bank for Agriculture and Rural Development, UTI Mutual Fund (formerly UTI) *etc* as well as State-level bodies namely State Electricity Boards, State Financial Corporations, Regional Rural Banks, Co-operatives, State Industrial Development Corporations, State Transport Corporations, Municipalities, local authorities *etc.* Other domestic investments cover i) Shares, bonds and debentures of Indian joint stock companies including public sector companies (non-trustee securities), ii) Fixed deposits with banks, iii) Certificate of deposits and Commercial papers, iv) Units of Mutual Funds, v) Others not elsewhere classified. Foreign investments comprise foreign government securities and other foreign investments. Moreover, investments by foreign offices of the domestic SCBs are classified into three segments namely, Indian securities, Foreign countries securities and other investments.

3. The investment data presented in this article, in general, is referred to by their face value and in the case of investments in shares, bonds and debentures of Indian joint stock companies, market value is also indicated along with the face value. For arriving at aggregates face value of investments is taken except in the case of investments in securities of Indian joint stock companies for which market value is taken.

4. Data on investments of SCBs classified according to broad categories at bank-group level and bank level are published in the Reserve Bank's annual publication *'Statistical Tables Relating to Banks in India (STRBI)'* based on annual accounts of banks. The investment figures presented in this article (as reported in BSR-5) may not necessarily tally with those in STRBI due to differences in valuation, aggregation and accounting practices.

[6] State Bank of Saurashtra and State Bank of Indore were merged with the SBI in October 2008 and August 2010 respectively.

[7] As per the reported figures of investments in Form 'A' return under Section 42 (2) of RBI Act, 1934 as on last reporting Friday of March 2012.

CURRENT STATISTICS

Select Economic Indicators

Reserve Bank of India

Money and Banking

Prices and Production

Government Accounts and Treasury Bills

Financial Markets

External Sector

Payment and Settlement Systems

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Notes: .. = Not available.
– = Nil/Negligible.
P = Preliminary/Provisional. PR = Partially Revised.

No. 1: Select Economic Indicators

Item	2011-12	2011-12		2012-13	
		Q2	Q3	Q2	Q3
	1	2	3	4	5
1 Real Sector (% Change)					
1.1 GDP	6.2	6.5	6.0	5.3	4.5
1.1.1 Agriculture	3.7	3.2	4.1	1.2	1.1
1.1.2 Industry	2.7	2.7	0.9	1.1	2.3
1.1.3 Services	7.9	8.2	8.1	7.1	6.0
1.1a Final Consumption Expenditure	8.1	16.1	9.0	2.9	4.2
1.1b Gross Fixed Capital Formation	4.4	11.1	-1.7	-1.0	6.0
	2011-12	2012		2013	
		Jan	Feb	Jan	Feb
	1	2	3	4	5
1.2 Index of Industrial Production	2.9	1.0	4.3	2.4	..
2 Money and Banking (% Change)					
2.1 Scheduled Commercial Banks					
2.1.1 Deposits	13.5	15.7	14.4	13.1	12.7
2.1.2 Credit	17.0	16.5	15.6	16.1	16.3
2.1.2.1 Non-food Credit	16.8	16.1	15.4	15.8	16.0
2.1.3 Investment in Govt. Securities	15.9	14.2	17.6	16.3	12.5
2.2 Money Stock Measures					
2.2.1 Reserve Money (M0)	3.7	14.6	8.5	4.2	7.5
2.2.2 Broad Money (M3)	13.2	14.8	13.9	12.7	12.4
3 Ratios (%)					
3.1 Cash Reserve Ratio	4.75	6.00	5.50	4.25	4.00
3.2 Statutory Liquidity Ratio	24.0	24.0	24.0	23.0	23.0
3.3 Cash-Deposit Ratio	6.1	7.0	6.0	5.5	5.2
3.4 Credit-Deposit Ratio	76.5	75.4	75.8	77.4	78.1
3.5 Incremental Credit-Deposit Ratio	78.1	72.8	76.3	71.1	78.9
3.6 Investment-Deposit Ratio	29.4	29.3	30.0	30.1	29.9
3.7 Incremental Investment-Deposit Ratio	29.4	33.7	39.9	37.0	34.6
4 Interest Rates (%)					
4.1 Policy Repo Rate	8.50	8.50	8.50	7.75	7.75
4.2 Reverse Repo Rate	7.50	7.50	7.50	6.75	6.75
4.3 Marginal Standing Facility (MSF) Rate	9.50	9.50	9.50	8.75	8.75
4.4 Bank Rate	9.50	6.00	9.50	8.75	8.75
4.5 Base Rate	10.00/10.75	10.00/10.75	10.00/10.75	9.75/10.50	9.70/10.50
4.6 Term Deposit Rate >1 Year	8.50/9.25	8.25/9.25	8.50/9.25	8.50/9.00	7.50/9.00
4.7 Savings Deposit Rate	4.00	4.00	4.00	4.00	4.00
4.8 Call Money Rate (Weighted Average)	9.02	9.04	8.97	7.82	7.85
4.9 91-Day Treasury Bill (Primary) Yield	9.02	8.73	9.06	7.94	8.10
4.10 182-Day Treasury Bill (Primary) Yield	8.66	8.55	8.75	7.94	8.03
4.11 364-Day Treasury Bill (Primary) Yield	8.40	8.47	8.51	7.84	7.90
4.12 10-Year Government Securities Yield	8.62	8.27	8.30	7.91	7.87
5 RBI Reference Rate and Forward Premia					
5.1 INR-US$ Spot Rate (₹ Per Foreign Currency)	51.16	49.68	48.94	53.29	53.77
5.2 INR-Euro Spot Rate (₹ Per Foreign Currency)	68.34	65.52	65.94	72.23	70.68
5.3 Forward Premia of US$ 1-month (%)	8.68	8.82	10.18	6.76	8.26
3-month (%)	7.66	8.45	8.91	7.58	7.96
6-month (%)	6.80	7.31	7.56	7.09	7.40
6 Inflation (%)					
6.1 Wholesale Price Index	9.0	7.2	7.6	6.6	6.8
6.1.1 Primary Articles	9.8	2.8	7.1	10.3	9.7
6.1.2 Fuel and Power	14.0	17.0	15.1	7.1	10.5
6.1.3 Manufactured Products	7.2	6.7	5.8	4.8	4.5
6.2 All India Consumer Price Index	..	7.7	8.8	10.8	10.9
6.3 Consumer Price Index for Industrial Workers	8.3	5.3	7.6	11.6	12.1
7 Foreign Trade (% Change)					
7.1 Imports	32.3	28.8	20.9	6.3	2.7
7.2 Exports	21.8	11.8	7.0	-2.1	4.2

Reserve Bank of India

No. 2: RBI - Liabilities and Assets

(₹ Billion)

Item	As on the Last Friday/ Friday						
	2012-13	2012	2013				
		Mar.	Feb. 22	Mar. 8	Mar. 15	Mar. 22	Mar. 29
	1	2	3	4	5	6	7
1 Issue Department							
1.1 Liabilities							
1.1.1 Notes in Circulation	11,772.18	10,558.28	11,634.06	11,664.43	11,728.11	11,725.53	11,772.18
1.1.2 Notes held in Banking Department	0.08	0.12	0.14	0.15	0.14	0.15	0.08
1.1/1.2 Total Liabilities (Total Notes Issued) or Assets	**11,772.26**	**10,558.40**	**11,634.20**	**11,664.59**	**11,728.26**	**11,725.68**	**11,772.26**
1.2 Assets							
1.2.1 Gold Coin and Bullion	740.85	724.43	753.23	740.85	740.85	740.85	740.85
1.2.2 Foreign Securities	11,019.02	9,822.63	10,868.49	10,912.09	10,976.22	10,972.07	11,019.02
1.2.3 Rupee Coin	1.92	0.88	2.01	1.18	0.72	2.30	1.92
1.2.4 Government of India Rupee Securities	10.46	10.46	10.46	10.46	10.46	10.46	10.46
2 Banking Department							
2.1 Liabilities							
2.1.1 Deposits	4,577.50	4,255.36	4,005.76	3,453.58	3,854.18	3,994.06	4,577.50
2.1.1.1 Central Government	817.59	489.51	754.38	403.90	450.77	878.35	817.59
2.1.1.2 Market Stabilisation Scheme	–	–	–	–	–	–	–
2.1.1.3 State Governments	0.42	0.42	0.42	0.42	0.42	0.42	0.42
2.1.1.4 Scheduled Commercial Banks	3,424.24	3,465.45	2,963.46	2,761.42	3,107.70	2,822.67	3,424.24
2.1.1.5 Scheduled State Co-operative Banks	41.29	34.46	27.96	30.28	30.72	30.64	41.29
2.1.1.6 Non-Scheduled State Co-operative Banks	2.37	0.87	2.33	2.40	2.43	2.37	2.37
2.1.1.7 Other Banks	152.48	147.56	137.72	136.30	142.72	140.54	152.48
2.1.1.8 Others	139.10	117.08	119.48	118.86	119.41	119.07	139.10
2.1.2 Other Liabilities	6,959.83	5,990.18	6,916.00	6,812.62	6,843.39	6,944.86	6,959.83
2.1/2.2 Total Liabilities or Assets	**11,537.33**	**10,245.54**	**10,921.76**	**10,266.20**	**10,697.56**	**10,938.92**	**11,537.33**
2.2 Assets							
2.2.1 Notes and Coins	0.08	0.12	0.14	0.15	0.14	0.15	0.08
2.2.2 Balances held Abroad	3,161.94	3,514.56	3,226.67	3,139.65	3,119.52	3,226.79	3,161.94
2.2.3 Loans and Advances							
2.2.3.1 Central Government	–	–	–	–	–	–	–
2.2.3.2 State Governments	3.70	2.28	6.79	2.11	4.83	0.38	3.70
2.2.3.3 Scheduled Commercial Banks	418.66	63.25	253.74	175.78	174.33	215.88	418.66
2.2.3.4 Scheduled State Co-op.Banks	–	–	–	–	–	–	–
2.2.3.5 Industrial Dev. Bank of India	–	–	–	–	–	–	–
2.2.3.6 NABARD	–	–	–	–	–	–	–
2.2.3.7 EXIM Bank	–	–	–	–	–	–	–
2.2.3.8 Others	19.00	26.93	7.54	8.90	14.07	16.78	19.00
2.2.4 Bills Purchased and Discounted							
2.2.4.1 Internal	–	–	–	–	–	–	–
2.2.4.2 Government Treasury Bills	–	–	–	–	–	–	–
2.2.5 Investments	7,185.00	5,904.72	6,682.00	6,201.92	6,644.94	6,735.48	7,185.00
2.2.6 Other Assets	748.93	733.68	744.89	737.69	739.73	743.47	748.93
2.2.6.1 Gold	672.98	658.07	684.23	672.98	672.98	672.98	672.98

No. 3: Liquidity Operations by RBI

(₹ Billion)

Date	Liquidity Adjustment Facility		MSF	Standing Liquidity Facilities	OMO (Outright)		Net Injection (+)/ Absorption (-) (1+3+4+6-2-5)
	Repo	Reverse Repo			Sale	Purchase	
	1	2	3	4	5	6	7
Feb. 1, 2013	1,090.95	–	–	7.80	–	–	1,098.75
Feb. 4, 2013	720.25	12.00	–	–19.09	–	–	689.16
Feb. 5, 2013	583.20	–	–	–45.00	–	–	538.20
Feb. 6, 2013	576.15	15.00	–	92.36	–	–	653.51
Feb. 7, 2013	1,169.80	32.10	–	–33.72	–	–	1,103.98
Feb. 8, 2013	1,082.25	10.95	–	–40.50	–	–	1,030.80
Feb. 11, 2013	1,094.80	0.10	–	60.84	–	–	1,155.54
Feb. 12, 2013	1,239.65	0.15	–	1.66	–	–	1,241.16
Feb. 13, 2013	1,269.45	0.10	–	1.40	–	–	1,270.75
Feb. 14, 2013	1,197.95	0.10	–	5.00	–	–	1,202.85
Feb. 15, 2013	1,201.20	0.15	–	0.37	–	–	1,201.42
Feb. 18, 2013	1,258.60	0.55	–	–16.90	–	99.98	1,341.13
Feb. 20, 2013	1,222.70	0.40	0.35	20.61	–	–	1,243.26
Feb. 21, 2013	1,123.10	0.45	–	–	–	–	1,122.65
Feb. 22, 2013	1,483.60	3.65	–	3.80	–	–	1,483.75
Feb. 25, 2013	1,284.25	0.25	–	22.10	–	–	1,306.10
Feb. 26, 2013	1,152.90	0.25	–	2.90	–	–	1,155.55
Feb. 27, 2013	1,129.05	0.50	–	6.96	–	–	1,135.51
Feb. 28, 2013	1,068.75	1.25	–	6.47	–	–	1,073.97

No. 4: Sale/ Purchase of U.S. Dollar by the RBI

Item	2011-12	2012	2013	
		Feb.	Jan.	Feb.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US$ Million) (1.1–1.2)	–20,138.00	–320.00	–18.00	–280.00
1.1 Purchase (+)	1,665.00	1,115.00	2,039.00	3,021.00
1.2 Sale (–)	21,803.00	1,435.00	2,057.00	3,301.00
2 ₹ equivalent at contract rate (₹ Billion)	–1,044.98	–18.86	–3.96	–19.69
3 Cumulative (over end-March 2012) (US $ Million)	–20,138.00	–20,138.00	–3,141.00	–3,421.00
(₹ Billion)	–1,044.98	–1,045.79	–173.57	–193.27
4 Outstanding Net Forward Sales (–)/ Purchase (+) at the end of month (US$ Million)	–3,233.00	–1,453.00	–12,809.00	–12,110.00

No. 5: RBI's Standing Facilities

(₹ Billion)

Item	As on the Last Reporting Friday							
	2011-12	2012					2013	
		Feb. 24	Sep. 21	Oct. 19	Nov. 30	Dec. 28	Jan. 25	Feb. 22
	1	2	3	4	5	6	7	8
1 MSF	92.0	–	–	–	–	–	1.8	–
2 Export Credit Refinance for Scheduled Banks								
2.1 Limit	131.5	129.3	381.1	376.9	377.3	383.5	397.4	407.2
2.2 Outstanding	87.9	55.2	166.0	166.1	229.7	245.4	248.0	197.6
3 Liquidity Facility for PDs								
3.1 Limit	26.7	26.7	28.0	28.0	28.0	28.0	28.0	28.0
3.2 Outstanding	13.1	7.7	3.2	3.2	8.7	7.7	6.5	6.1
4 Others								
4.1 Limit	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
4.2 Outstanding	13.3	13.3	19.7	5.3	32.7	16.4	10.9	0.0
5 Total Outstanding (1+2.2+3.2+4.2)	206.3	76.2	188.9	174.6	271.1	269.5	267.1	203.7

Money and Banking

No. 6: Money Stock Measures

(₹ Billion)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2011-12	2012	2013		
		Feb. 24	Jan. 25	Feb. 8	Feb. 22
	1	2	3	4	5
1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4)	10,256.7	10,146.5	11,087.9	11,239.2	11,260.7
1.1 Notes in Circulation	10,537.9	10,433.7	11,436.5	11,549.0	11,634.1
1.2 Circulation of Rupee Coin	127.1	125.4	139.8	139.8	139.8
1.3 Circulation of Small Coins	7.4	7.4	7.4	7.4	7.4
1.4 Cash on Hand with Banks	415.6	420.0	495.9	457.0	520.6
2 Deposit Money of the Public	7,077.4	6,769.3	6,937.5	6,940.1	7,143.5
2.1 Demand Deposits with Banks	7,049.1	6,758.4	6,922.8	6,925.1	7,129.2
2.2 ‘Other’ Deposits with Reserve Bank	28.2	10.9	14.7	15.0	14.3
3 M_1 (1 + 2)	17,334.0	16,915.8	18,025.4	18,179.3	18,404.2
4 Post Office Saving Bank Deposits	50.4	50.4	50.4	50.4	50.4
5 M_2 (3 + 4)	17,384.4	16,966.2	18,075.8	18,229.7	18,454.6
6 Time Deposits with Banks	56,243.5	55,614.7	62,978.6	63,420.7	63,125.2
7 M_3 (3 + 6)	73,577.5	72,530.5	81,004.0	81,600.0	81,529.4
8 Total Post Office Deposits	259.7	259.7	259.7	259.7	259.7
9 M_4 (7 + 8)	73,837.2	72,790.2	81,263.7	81,859.7	81,789.1

No. 7: Sources of Money Stock (M_3)

(₹ Billion)

Sources	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2011-12	2012	2013		
		Feb. 24	Jan. 25	Feb. 8	Feb. 22
	1	2	3	4	5
1 Net Bank Credit to Government	**23,716.1**	**23,314.5**	**26,577.2**	**26,799.2**	**26,632.7**
1.1 RBI's net credit to Government (1.1.1–1.1.2)	5,357.4	4,883.7	5,851.2	5,759.4	5,930.8
1.1.1 Claims on Government	5,542.0	4,885.1	6,257.7	6,150.8	6,685.6
1.1.1.1 Central Government	5,528.3	4,884.0	6,255.7	6,148.8	6,678.8
1.1.1.2 State Governments	13.7	1.1	2.0	2.0	6.8
1.1.2 Government deposits with RBI	184.6	1.4	406.5	391.5	754.8
1.1.2.1 Central Government	184.2	1.0	405.4	391.0	754.4
1.1.2.2 State Governments	0.4	0.4	1.1	0.4	0.4
1.2 Other Banks' Credit to Government	18,358.8	18,430.8	20,726.0	21,039.8	20,702.0
2 Bank Credit to Commercial Sector	**49,605.3**	**47,552.1**	**54,355.2**	**54,838.1**	**55,103.0**
2.1 RBI's credit to commercial sector	39.6	34.3	30.6	19.3	19.3
2.2 Other banks' credit to commercial sector	49,565.7	47,517.8	54,324.6	54,818.9	55,083.7
2.2.1 Bank credit by commercial banks	46,118.5	44,091.0	50,512.2	50,999.0	51,260.1
2.2.2 Bank credit by co-operative banks	3,382.2	3,360.1	3,765.7	3,778.4	3,783.7
2.2.3 Investments by commercial and co-operative banks in other securities	65.0	66.8	46.6	41.4	39.9
3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)	**15,437.8**	**14,673.3**	**16,082.0**	**15,903.6**	**15,989.0**
3.1 RBI's net foreign exchange assets (3.1.1–3.1.2)	14,722.0	14,158.5	15,626.8	15,448.3	15,533.8
3.1.1 Gross foreign assets	14,722.0	14,158.7	15,627.0	15,449.7	15,535.1
3.1.2 Foreign liabilities	0.1	0.2	0.2	1.3	1.3
3.2 Other banks' net foreign exchange assets	715.8	514.7	455.3	455.3	455.3
4 Government's Currency Liabilities to the Public	**134.4**	**132.8**	**147.2**	**147.2**	**147.2**
5 Banking Sector's Net Non-monetary Liabilities	**15,316.2**	**13,142.1**	**16,157.6**	**16,088.1**	**16,342.6**
5.1 Net non-monetary liabilities of RBI	6,038.4	5,375.4	7,013.0	6,829.4	6,959.0
5.2 Net non-monetary liabilities of other banks (residual)	9,277.8	7,766.8	9,144.6	9,258.7	9,383.6
M_3 (1+2+3+4–5)	**73,577.5**	**72,530.5**	**81,004.0**	**81,600.0**	**81,529.4**

No. 8: Monetary Survey

(₹ Billion)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2011-12	2012	2013		
		Feb. 24	Jan. 25	Feb. 8	Feb. 22
	1	2	3	4	5
Monetary Aggregates					
M_1 (1.1 + 1.2.1+1.3)	17,238.0	16,826.7	17,929.3	18,082.8	18,304.6
NM_2 (M_1 + 1.2.2.1)	41,688.4	41,005.3	45,276.2	45,625.6	45,709.8
NM_3 (NM_2 + 1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	73,636.7	72,369.4	80,766.5	81,421.0	81,331.6
1 Components					
1.1 Currency with the Public	10,266.0	10,154.6	11,098.1	11,249.6	11,272.1
1.2 Aggregate Deposits of Residents	61,277.9	60,391.4	67,587.3	68,024.4	67,918.5
1.2.1 Demand Deposits	6,943.7	6,661.2	6,816.4	6,818.1	7,018.2
1.2.2 Time Deposits of Residents	54,334.2	53,730.2	60,770.8	61,206.3	60,900.3
1.2.2.1 Short-term Time Deposits	24,450.4	24,178.6	27,346.9	27,542.8	27,405.1
1.2.2.1.1 Certificates of Deposit (CDs)	4,539.0	4,087.9	3,265.3	3,137.7	3,016.0
1.2.2.2 Long-term Time Deposits	29,883.8	29,551.6	33,424.0	33,663.4	33,495.2
1.3 'Other' Deposits with RBI	28.2	10.9	14.7	15.0	14.3
1.4 Call/Term Funding from Financial Institutions	2,064.5	1,812.5	2,066.4	2,132.0	2,126.7
2 Sources					
2.1 Domestic Credit	74,800.1	72,674.7	82,908.9	83,676.0	83,729.9
2.1.1 Net Bank Credit to the Government	23,339.3	22,943.5	26,117.9	26,340.5	26,170.0
2.1.1.1 Net RBI credit to the Government	5,357.4	4,883.7	5,851.2	5,759.4	5,930.8
2.1.1.2 Credit to the Government by the Banking System	17,981.9	18,059.8	20,266.6	20,581.1	20,239.2
2.1.2 Bank Credit to the Commercial Sector	51,460.8	49,731.3	56,791.0	57,335.5	57,560.0
2.1.2.1 RBI Credit to the Commercial Sector	39.6	34.3	30.6	19.3	19.3
2.1.2.2 Credit to the Commercial Sector by the Banking System	51,421.2	49,697.0	56,760.4	57,316.2	57,540.7
2.1.2.2.1 Other Investments (Non-SLR Securities)	2,719.7	2,994.1	3,433.4	3,516.9	3,475.6
2.2 Government's Currency Liabilities to the Public	134.4	132.8	147.2	147.2	147.2
2.3 Net Foreign Exchange Assets of the Banking Sector	13,950.1	13,481.8	14,379.5	14,275.4	14,378.7
2.3.1 Net Foreign Exchange Assets of the RBI	14,722.0	14,158.5	15,626.8	15,448.3	15,533.8
2.3.2 Net Foreign Currency Assets of the Banking System	–771.8	–676.7	–1,247.3	–1,172.9	–1,155.1
2.4 Capital Account	11,094.1	10,473.4	12,892.8	12,749.9	12,849.2
2.5 Other items (net)	4,154.0	3,446.6	3,776.3	3,927.8	4,075.0

No. 9: Liquidity Aggregates

(₹ Billion)

Aggregates	2011-12	2012		2013	
		Feb.	Dec.	Jan.	Feb.
	1	2	3	4	5
1 NM_3	**73,636.7**	**72,369.4**	**80,057.4**	**80,766.5**	**81,331.6**
2 Postal Deposits	1,241.5	1,218.8	1,364.8	1,372.1	1,372.1
3 L_1 (1 + 2)	**74,878.2**	**73,588.2**	**81,422.2**	**82,138.5**	**82,703.6**
4 Liabilities of Financial Institutions	29.3	29.3	29.3	29.3	29.3
4.1 Term Money Borrowings	26.6	26.6	26.6	26.6	26.6
4.2 Certificates of Deposit	0.3	0.3	0.3	0.3	0.3
4.3 Term Deposits	2.5	2.5	2.5	2.5	2.5
5 L_2 (3 + 4)	**74,907.5**	**73,617.5**	**81,451.5**	**82,167.8**	**82,732.9**
6 Public Deposits with Non-Banking Financial Companies	101.1		99.4		
7 L_3 (5 + 6)	**75,008.6**		**81,550.9**		

No. 10: Reserve Bank of India Survey

(₹ Billion)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2011-12	2012	2013		
		Feb. 24	Jan. 25	Feb. 8	Feb. 22
	1	2	3	4	5
1 Components					
1.1 Currency in Circulation	10,672.3	10,566.5	11,583.8	11,696.2	11,781.3
1.2 Bankers' Deposits with the RBI	3,562.9	3,311.8	3,292.3	3,011.9	3,131.5
1.2.1 Scheduled Commercial Banks	3,373.6	3,117.2	3,118.1	2,840.5	2,963.5
1.3 'Other' Deposits with the RBI	28.2	10.9	14.7	15.0	14.3
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	14,263.4	13,889.1	14,890.8	14,723.1	14,927.1
2 Sources					
2.1 RBI's Domestic Credit	5,445.5	4,973.2	6,129.8	5,957.0	6,205.1
2.1.1 Net RBI credit to the Government	5,357.4	4,883.7	5,851.2	5,759.4	5,930.8
2.1.1.1 Net RBI credit to the Central Government (2.1.1.1.1 + 2.1.1.1.2 + 2.1.1.1.3 + 2.1.1.1.4 – 2.1.1.1.5)	5,344.1	4,883.0	5,850.3	5,757.8	5,924.4
2.1.1.1.1 Loans and Advances to the Central Government	–	–	–	–	–
2.1.1.1.2 Investments in Treasury Bills	–	–	–	–	–
2.1.1.1.3 Investments in dated Government Securities	5,527.5	4,881.5	6,254.3	6,146.2	6,676.8
2.1.1.1.3.1 Central Government Securities	5,517.0	4,871.0	6,243.8	6,135.7	6,666.3
2.1.1.1.4 Rupee Coins	0.8	2.5	1.4	2.6	2.0
2.1.1.1.5 Deposits of the Central Government	184.2	1.0	405.4	391.0	754.4
2.1.1.2 Net RBI credit to State Governments	13.2	0.7	1.0	1.6	6.4
2.1.2 RBI's Claims on Banks	48.5	55.2	248.0	178.3	255.0
2.1.2.1 Loans and Advances to Scheduled Commercial Banks	48.5	55.2	246.8	177.1	253.7
2.1.3 RBI's Credit to Commercial Sector	39.6	34.3	30.6	19.3	19.3
2.1.3.1 Loans and Advances to Primary Dealers	13.6	7.7	6.5	6.1	6.1
2.1.3.2 Loans and Advances to NABARD	–	–	–	–	–
2.2 Government's Currency Liabilities to the Public	134.4	132.8	147.2	147.2	147.2
2.3 Net Foreign Exchange Assets of the RBI	14,722.0	14,158.5	15,626.8	15,448.3	15,533.8
2.3.1 Gold	1,382.5	1,327.8	1,491.0	1,437.5	1,437.5
2.3.2 Foreign Currency Assets	13,339.6	12,830.9	14,135.9	14,011.0	14,096.5
2.4 Capital Account	5,490.0	4,951.1	6,522.1	6,362.0	6,461.3
2.5 Other Items (net)	548.4	424.2	490.9	467.5	497.7

No. 11: Reserve Money - Components and Sources

(₹ Billion)

Item	Outstanding as on March 31/ last Fridays of the month/ Fridays						
	2011-12	2012	2013				
		Feb. 24	Jan. 25	Feb. 1	Feb. 8	Feb. 15	Feb. 22
	1	2	3	4	5	6	7
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 + 2.4 + 2.5 – 2.6)	14,263.4	13,889.1	14,890.8	14,943.5	14,723.1	14,827.7	14,927.1
1 Components							
1.1 Currency in Circulation	10,672.3	10,566.5	11,583.8	11,542.8	11,696.2	11,770.2	11,781.3
1.2 Bankers' Deposits with RBI	3,562.9	3,311.8	3,292.3	3,385.3	3,011.9	3,043.5	3,131.5
1.3 'Other' Deposits with RBI	28.2	10.9	14.7	15.4	15.0	14.0	14.3
2 Sources							
2.1 Net Reserve Bank Credit to Government	5,357.4	4,883.7	5,851.2	5,943.1	5,759.4	5,813.7	5,930.8
2.2 Reserve Bank Credit to Banks	48.5	55.2	248.0	227.0	178.3	247.6	255.0
2.3 Reserve Bank Credit to Commercial Sector	39.6	34.3	30.6	16.5	19.3	19.3	19.3
2.4 Net Foreign Exchange Assets of RBI	14,722.0	14,158.5	15,626.8	15,414.1	15,448.3	15,504.2	15,533.8
2.5 Government's Currency Liabilities to the Public	134.4	132.8	147.2	147.2	147.2	147.2	147.2
2.6 Net Non- Monetary Liabilities of RBI	6,038.4	5,375.4	7,013.0	6,804.4	6,829.4	6,904.3	6,959.0

No. 12: Commercial Bank Survey

(₹ Billion)

Item	Outstanding as on last reporting Fridays of the month/ reporting Fridays of the month				
	2011-12	2012	2013		
		Feb. 24	Jan. 25	Feb. 8	Feb. 22
	1	2	3	4	5
1 Components					
1.1 Aggregate Deposits of Residents	58,309.6	57,426.6	64,467.2	64,905.4	64,800.4
1.1.1 Demand Deposits	6,253.3	5,970.7	6,099.0	6,101.5	6,302.3
1.1.2 Time Deposits of Residents	52,056.3	51,456.0	58,368.2	58,804.0	58,498.1
1.1.2.1 Short-term Time Deposits	23,425.3	23,155.2	26,265.7	26,461.8	26,324.1
1.1.2.1.1 Certificates of Deposits (CDs)	4,247.0	4,087.9	3,265.3	3,137.7	3,016.0
1.1.2.2 Long-term Time Deposit	28,631.0	28,300.8	32,102.5	32,342.2	32,174.0
1.2 Call/Term Funding from Financial Institutions	2,064.5	1,812.5	2,066.4	2,132.0	2,126.7
2 Sources					
2.1 Domestic Credit	66,236.7	64,507.3	73,568.1	74,433.1	74,311.9
2.1.1 Credit to the Government	17,350.2	17,427.9	19,637.3	19,952.6	19,611.3
2.1.2 Credit to the Commercial Sector	48,886.5	47,079.4	53,930.8	54,480.4	54,700.7
2.1.2.1 Bank Credit	46,118.5	44,091.0	50,512.2	50,999.0	51,260.1
2.1.2.1.1 Non-food Credit	45,305.5	43,258.8	49,455.3	49,911.7	50,190.9
2.1.2.2 Net Credit to Primary Dealers	30.0	55.1	48.5	33.0	33.6
2.1.2.3 Investments in Other Approved Securities	27.7	29.0	26.3	21.1	21.1
2.1.2.4 Other Investments (in non-SLR Securities)	2,710.2	2,904.5	3,343.7	3,427.3	3,385.9
2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1–2.2.2–2.2.3)	–801.9	–676.7	–1,247.3	–1,172.9	–1,155.1
2.2.1 Foreign Currency Assets	732.7	726.6	441.4	536.0	563.3
2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits	781.2	772.5	803.8	803.2	810.2
2.2.3 Overseas Foreign Currency Borrowings	753.4	630.8	884.9	905.7	908.2
2.3 Net Bank Reserves (2.3.1+2.3.2–2.3.3)	3,506.5	3,428.9	3,313.8	3,067.0	3,175.9
2.3.1 Balances with the RBI	3,232.7	3,117.2	3,118.1	2,840.5	2,963.5
2.3.2 Cash in Hand	361.3	366.9	442.6	403.6	466.2
2.3.3 Loans and Advances from the RBI	87.5	55.2	246.8	177.1	253.7
2.4 Capital Account	5,291.5	5,280.5	6,129.0	6,146.2	6,146.2
2.5 Other items (net) (2.1+2.2+2.3–2.4–1.1–1.2)	3,275.5	2,739.9	2,972.1	3,143.5	3,259.5
2.5.1 Other Demand and Time Liabilities (net of 2.2.3)	2,980.5	2,800.2	3,038.1	3,013.8	3,090.3
2.5.2 Net Inter-Bank Liabilities (other than to PDs)	–525.9	–509.2	–504.8	–549.0	–477.9

No. 13: Scheduled Commercial Banks' Investments

(₹ Billion)

Item	As on March 23, 2012	2012	2013		
		Feb. 24	Jan. 25	Feb. 8	Feb. 22
	1	2	3	4	5
1 SLR Securities	17,377.9	17,456.9	19,661.1	19,973.7	19,632.3
2 Commercial Paper	196.0	248.5	318.4	277.3	272.5
3 Shares issued by					
3.1 PSUs	72.0	69.0	77.6	80.7	87.4
3.2 Private Corporate Sector	301.1	298.5	331.6	332.1	331.7
3.3 Others	5.2	8.1	8.7	8.7	11.4
4 Bonds/Debentures issued by					
4.1 PSUs	412.1	397.5	368.6	348.1	356.5
4.2 Private Corporate Sector	740.5	721.0	950.7	975.6	974.2
4.3 Others	349.3	385.4	412.5	422.4	422.9
5 Instruments issued by					
5.1 Mutual funds	251.4	339.9	517.6	575.3	498.6
5.2 Financial institutions	382.5	436.5	408.5	407.0	430.7

No. 14: Business in India - All Scheduled Banks and All Scheduled Commercial Banks

(₹ Billion)

Item	As on the Last Reporting Friday (in case of March)/ Last Friday							
	All Scheduled Banks				All Scheduled Commercial Banks			
	2011-12	2012	2013	2013	2011-12	2012	2013	2013
		Feb.	Jan.	Feb.		Feb.	Jan.	Feb.
	1	2	3	4	5	6	7	8
Number of Reporting Banks	237	235	221	225	169	167	154	158
1 Liabilities to the Banking System	1,256.1	1,210.3	1,236.8	1,335.8	1,223.2	1,176.5	1,195.9	1,297.7
1.1 Demand and Time Deposits from Banks	874.5	808.3	816.1	826.6	842.5	777.9	785.5	795.4
1.2 Borrowings from Banks	320.1	275.8	337.2	417.2	319.2	272.4	326.9	410.5
1.3 Other Demand and Time Liabilities	61.5	126.2	83.6	91.9	61.4	126.2	83.6	91.9
2 Liabilities to Others	66,655.8	65,179.9	73,211.3	73,707.9	64,889.2	63,442.6	71,263.3	71,735.7
2.1 Aggregate Deposits	60,777.9	59,863.1	67,172.3	67,510.4	59,090.8	58,199.2	65,288.0	65,610.5
2.1.1 Demand	6,401.7	6,117.8	6,260.8	6,461.8	6,253.3	5,970.7	6,103.6	6,302.3
2.1.2 Time	54,376.3	53,745.3	60,911.4	61,048.7	52,837.5	52,228.5	59,184.4	59,308.3
2.2 Borrowings	2,083.3	1,828.0	2,077.9	2,138.9	2,064.5	1,812.5	2,066.0	2,126.7
2.3 Other Demand and Time Liabilities	3,794.6	3,488.7	3,961.1	4,058.6	3,733.9	3,431.0	3,909.2	3,998.5
3 Borrowings from Reserve Bank	87.9	55.2	248.0	255.0	87.5	55.2	246.8	253.7
3.1 Against Usance Bills /Promissory Notes	–	–	–	–	–	–	–	–
3.2 Others	87.9	55.2	248.0	255.0	87.5	55.2	246.8	253.7
4 Cash in Hand and Balances with Reserve Bank	3,687.0	3,585.4	3,653.2	3,518.1	3,594.0	3,484.1	3,562.0	3,429.7
4.1 Cash in Hand	369.7	376.5	453.4	476.4	361.3	366.9	444.0	466.2
4.2 Balances with Reserve Bank	3,317.3	3,208.9	3,199.9	3,041.7	3,232.7	3,117.2	3,118.1	2,963.5
5 Assets with the Banking System	2,040.1	2,001.7	2,018.2	2,049.0	1,779.1	1,740.8	1,764.7	1,809.2
5.1 Balances with Other Banks	792.1	709.2	885.6	860.2	706.5	633.3	795.7	771.6
5.1.1 In Current Account	117.8	105.7	112.4	119.6	103.2	89.7	97.6	104.2
5.1.2 In Other Accounts	674.3	603.6	773.3	740.6	603.3	543.6	698.1	667.4
5.2 Money at Call and Short Notice	356.9	343.8	327.4	398.8	232.8	210.5	219.7	301.9
5.3 Advances to Banks	139.6	72.7	83.4	96.5	135.8	68.9	76.4	89.4
5.4 Other Assets	751.6	876.1	721.8	693.6	703.9	828.0	673.0	646.4
6 Investment	17,912.9	17,988.6	20,262.7	20,232.7	17,377.9	17,456.9	19,661.1	19,632.3
6.1 Government Securities	17,882.7	17,957.1	20,236.2	20,209.4	17,350.2	17,427.9	19,638.2	19,611.3
6.2 Other Approved Securities	30.2	31.5	26.5	23.3	27.7	29.0	22.9	21.1
7 Bank Credit	47,537.8	45,486.7	52,134.9	52,906.2	46,118.5	44,091.0	50,509.1	51,260.1
7a Food Credit	876.3	895.4	1,138.4	1,150.6	813.0	832.1	1,057.1	1,069.2
7.1 Loans, Cash-credits and Overdrafts	45,760.4	43,881.9	50,243.2	50,971.3	44,359.8	42,504.3	48,640.1	49,349.0
7.2 Inland Bills-Purchased	168.3	161.7	230.9	238.4	163.4	156.9	226.0	232.4
7.3 Inland Bills-Discounted	989.6	870.9	1,005.6	1,054.6	979.8	861.6	991.8	1,041.1
7.4 Foreign Bills-Purchased	212.7	181.3	208.7	203.3	211.7	180.0	207.4	201.5
7.5 Foreign Bills-Discounted	406.7	390.9	446.5	438.7	403.8	388.2	443.9	436.1

No. 15: Deployment of Gross Bank Credit by Major Sectors

(₹ Billion)

Item	Outstanding as on				Growth (%)	
	Mar. 23, 2012	2012	2013		Financial year so far	Y-o-Y
		Feb. 24	Jan. 25	Feb. 22	2012-13	2013
	1	2	3	4	5	6
1 Gross Bank Credit	**43,714**	**41,797**	**47,368**	**47,911**	**9.6**	**14.6**
1.1 Food Credit	**816**	**847**	**1,070**	**1,053**	**29.0**	**24.3**
1.2 Non-food Credit	**42,897**	**40,950**	**46,297**	**46,858**	**9.2**	**14.4**
1.2.1 Agriculture & Allied Activities	**5,225**	**4,733**	**5,580**	**5,603**	**7.2**	**18.4**
1.2.2 Industry	**19,675**	**18,819**	**21,309**	**21,592**	**9.7**	**14.7**
1.2.2.1 Micro & Small	2,592	2,492	2,732	2,811	8.4	12.8
1.2.2.2 Medium	2,056	2,044	1,960	1,832	–10.9	–10.4
1.2.2.3 Large	15,026	14,283	16,617	16,949	12.8	18.7
1.2.3 Services	**10,168**	**9,727**	**10,739**	**10,957**	**7.8**	**12.7**
1.2.3.1 Transport Operators	713	682	724	723	1.3	6.0
1.2.3.2 Computer Software	154	150	161	167	8.7	11.7
1.2.3.3 Tourism, Hotels & Restaurants	313	313	360	351	12.2	12.3
1.2.3.4 Shipping	89	108	77	76	–14.1	–29.6
1.2.3.5 Professional Services	639	546	543	537	–15.9	–1.6
1.2.3.6 Trade	2,209	2,171	2,575	2,680	21.3	23.5
1.2.3.6.1 Wholesale Trade	1,280	1,246	1,397	1,481	15.7	18.9
1.2.3.6.2 Retail Trade	929	925	1,178	1,199	29.1	29.7
1.2.3.7 Commercial Real Estate	1,205	1,180	1,311	1,304	8.2	10.5
1.2.3.8 Non-Banking Financial Companies (NBFCs)	2,218	2,078	2,444	2,423	9.3	16.6
1.2.3.9 Other Services	2,628	2,500	2,544	2,695	2.6	7.8
1.2.4 Personal Loans	**7,830**	**7,671**	**8,669**	**8,706**	**11.2**	**13.5**
1.2.4.1 Consumer Durables	88	87	80	81	–7.8	–6.7
1.2.4.2 Housing	4,027	3,945	4,446	4,480	11.2	13.5
1.2.4.3 Advances against Fixed Deposits	685	563	605	610	–11.0	8.3
1.2.4.4 Advances to Individuals against share & bonds	38	37	34	34	–11.1	–7.7
1.2.4.5 Credit Card Outstanding	204	206	252	255	24.7	23.7
1.2.4.6 Education	502	501	547	549	9.3	9.5
1.2.4.7 Vehicle Loans	949	932	1,113	1,127	18.7	20.9
1.2.4.8 Other Personal Loans	1,336	1,401	1,592	1,571	17.6	12.2
1.2A Priority Sector	**14,122**	**13,151**	**14,917**	**15,071**	**6.7**	**14.6**
1.2A.1 Agriculture & Allied Activities	5,225	4,733	5,580	5,603	7.2	18.4
1.2A.2 Micro & Small Enterprises	5,191	4,888	5,429	5,517	6.3	12.9
1.2A.2.1 Manufacturing	2,592	2,492	2,732	2,811	8.4	12.8
1.2A.2.2 Services	2,599	2,396	2,697	2,706	4.2	13.0
1.2A.3 Housing	2,654	2,557	2,710	2,724	2.6	6.5
1.2A.4 Micro-Credit	231	210	238	242	4.8	15.5
1.2A.5 Education Loans	483	484	523	524	8.7	8.3
1.2A.6 State-Sponsored Orgs. for SC/ST	26	27	29	29	11.5	7.4
1.2A.7 Weaker Sections	2,563	2,417	2,856	2,917	13.8	20.7
1.2A.8 Export Credit	377	316	409	443	17.5	40.2

No. 16: Industry-wise Deployment of Gross Bank Credit

(₹ Billion)

Industry	Outstanding as on				Growth (%)	
	Mar. 23, 2012	2012	2013		Financial year so far	Y-o-Y
		Feb. 24	Jan. 25	Feb. 22	2012-13	2013
	1	2	3	4	5	6
1 Industry	**19,675**	**18,819**	**21,309**	**21,592**	**9.7**	**14.7**
1.1 Mining & Quarrying (incl. Coal)	**325**	**301**	**398**	**391**	**20.2**	**29.7**
1.2 Food Processing	**1,024**	**972**	**1,117**	**1,142**	**11.5**	**17.5**
1.2.1 Sugar	312	300	281	293	–6.0	–2.4
1.2.2 Edible Oils & Vanaspati	144	134	159	162	12.8	21.2
1.2.3 Tea	23	22	26	27	15.4	20.2
1.2.4 Others	546	516	651	661	21.1	28.0
1.3 Beverage & Tobacco	**135**	**131**	**168**	**168**	**24.5**	**28.6**
1.4 Textiles	**1,599**	**1,558**	**1,669**	**1,697**	**6.1**	**8.9**
1.4.1 Cotton Textiles	810	798	836	852	5.1	6.7
1.4.2 Jute Textiles	14	14	18	18	29.6	30.6
1.4.3 Man-Made Textiles	114	111	120	121	6.8	9.2
1.4.4 Other Textiles	661	635	694	706	6.8	11.1
1.5 Leather & Leather Products	**74**	**72**	**84**	**82**	**10.7**	**14.0**
1.6 Wood & Wood Products	**63**	**62**	**78**	**79**	**24.5**	**27.4**
1.7 Paper & Paper Products	**251**	**247**	**286**	**289**	**15.2**	**17.3**
1.8 Petroleum, Coal Products & Nuclear Fuels	**701**	**564**	**656**	**699**	**–0.2**	**23.9**
1.9 Chemicals & Chemical Products	**1,125**	**1,047**	**1,253**	**1,277**	**13.5**	**22.0**
1.9.1 Fertiliser	152	141	201	212	39.7	51.1
1.9.2 Drugs & Pharmaceuticals	472	454	482	478	1.2	5.3
1.9.3 Petro Chemicals	184	150	163	176	–4.7	17.4
1.9.4 Others	317	303	406	411	29.9	35.9
1.10 Rubber, Plastic & their Products	**258**	**251**	**298**	**301**	**17.0**	**19.8**
1.11 Glass & Glassware	**60**	**60**	**65**	**66**	**10.7**	**10.3**
1.12 Cement & Cement Products	**372**	**365**	**435**	**444**	**19.4**	**21.6**
1.13 Basic Metal & Metal Product	**2,556**	**2,496**	**2,965**	**3,007**	**17.6**	**20.5**
1.13.1 Iron & Steel	1,927	1,880	2,220	2,250	16.7	19.7
1.13.2 Other Metal & Metal Product	629	617	745	757	20.3	22.7
1.14 All Engineering	**1,136**	**1,105**	**1,279**	**1,294**	**13.9**	**17.1**
1.14.1 Electronics	320	314	364	364	13.7	16.0
1.14.2 Others	816	791	915	930	14.0	17.5
1.15 Vehicles, Vehicle Parts & Transport Equipment	**516**	**519**	**595**	**613**	**18.8**	**18.1**
1.16 Gems & Jewellery	**504**	**490**	**577**	**584**	**16.0**	**19.2**
1.17 Construction	**567**	**569**	**602**	**619**	**9.2**	**8.8**
1.18 Infrastructure	**6,191**	**6,064**	**7,162**	**7,250**	**17.1**	**19.6**
1.18.1 Power	3,289	3,190	4,072	4,140	25.9	29.8
1.18.2 Telecommunications	936	920	920	919	–1.8	–0.0
1.18.3 Roads	1,144	1,129	1,302	1,327	16.0	17.5
1.18.4 Other Infrastructure	822	825	869	865	5.1	4.8
1.19 Other Industries	**2,219**	**1,945**	**1,624**	**1,588**	**–28.4**	**–18.3**

No. 17: State Co-operative Banks Maintaining Accounts with the Reserve Bank of India

(₹ Billion)

Item	Last Reporting Friday (in case of March)/Last Friday/ Reporting Friday					
	2011-12	2011	2012			
		Nov. 25	Oct. 26	Nov. 2	Nov. 16	Nov. 30
	1	2	3	4	5	6
Number of Reporting Banks	31	31	31	31	31	31
1 Aggregate Deposits (2.1.1.2+2.2.1.2)	315.3	294.4	331.3	331.6	332.7	335.8
2 Demand and Time Liabilities						
2.1 Demand Liabilities	126.1	107.9	113.6	116.6	113.4	121.7
2.1.1 Deposits						
2.1.1.1 Inter-Bank	19.6	13.3	16.9	16.9	17.3	19.9
2.1.1.2 Others	66.4	63.5	69.7	70.0	70.0	70.5
2.1.2 Borrowings from Banks	12.3	9.1	8.9	10.3	9.3	10.1
2.1.3 Other Demand Liabilities	27.8	22.0	18.2	19.4	16.7	21.2
2.2 Time Liabilities	715.1	670.8	745.3	747.2	742.5	747.5
2.2.1 Deposits						
2.2.1.1 Inter-Bank	455.4	434.0	476.2	477.2	472.9	474.4
2.2.1.2 Others	248.9	230.8	261.7	261.6	262.7	265.3
2.2.2 Borrowings from Banks	3.6	–	–	1.0	–	–
2.2.3 Other Time Liabilities	7.2	6.0	7.4	7.4	6.9	7.8
3 Borrowing from Reserve Bank	–	–	–	–	0.1	0.1
4 Borrowings from a notified bank / State Government	275.9	198.9	294.1	299.0	298.8	300.2
4.1 Demand	106.9	100.6	121.3	123.4	123.3	124.2
4.2 Time	169.0	98.3	172.8	175.6	175.5	176.0
5 Cash in Hand and Balances with Reserve Bank	37.1	40.7	36.4	33.1	31.6	34.7
5.1 Cash in Hand	1.9	1.9	2.0	2.0	2.1	2.2
5.2 Balance with Reserve Bank	35.2	38.9	34.4	31.1	29.5	32.5
6 Balances with Other Banks in Current Account	6.5	5.9	5.9	5.5	5.3	5.2
7 Investments in Government Securities	251.8	250.0	257.5	259.1	257.6	258.8
8 Money at Call and Short Notice	159.1	147.0	138.5	120.9	141.6	137.9
9 Bank Credit (10.1+11)	310.3	234.3	328.8	328.5	328.1	328.7
10 Advances						
10.1 Loans, Cash-Credits and Overdrafts	310.1	234.2	328.7	328.4	328.0	328.6
10.2 Due from Banks	461.6	471.8	551.2	555.8	554.9	557.4
11 Bills Purchased and Discounted	0.1	0.2	0.1	0.1	0.1	0.1

Prices and Production

No. 18: Consumer Price Index (Base: 2010=100)

Group/Sub group	2011-12			Rural			Urban			Combined		
	Rural	Urban	Combined	Feb. 12	Jan. 13	Feb. 13	Feb. 12	Jan. 13	Feb. 13	Feb. 12	Jan. 13	Feb. 13
	1	2	3	4	5	6	7	8	9	10	11	12
1 Food, beverages and tobacco	**111.9**	**110.9**	**111.6**	**113.6**	**127.8**	**128.7**	**112.9**	**127.2**	**128.4**	**113.4**	**127.6**	**128.6**
1.1 Cereals and products	107.3	102.1	106.0	108.3	122.8	124.9	102.6	122.2	125.1	106.8	122.6	125.0
1.2 Pulses and products	100.9	98.9	100.3	103.2	115.4	115.5	100.9	116.6	114.5	102.5	115.8	115.2
1.3 Oils and fats	118.5	125.4	120.7	123.5	142.5	143.3	132.5	147.8	147.9	126.4	144.2	144.8
1.4 Egg, fish and meat	115.6	113.3	114.8	118.1	132.5	134.9	117.0	135.1	138.6	117.7	133.4	136.2
1.5 Milk and products	119.1	117.6	118.5	124.8	135.2	136.0	122.8	130.3	130.8	124.1	133.4	134.1
1.6 Condiments and spices	120.9	121.7	121.1	121.4	128.6	128.7	121.7	124.0	124.6	121.5	127.3	127.5
1.7 Vegetables	107.2	101.8	105.5	102.4	125.3	124.2	96.5	115.8	116.8	100.5	122.3	121.9
1.8 Fruits	127.6	126.8	127.2	126.8	138.1	139.8	122.6	133.3	134.4	125.0	136.0	137.5
1.9 Sugar etc	97.1	96.4	96.9	99.5	112.9	111.7	98.4	111.5	110.0	99.2	112.5	111.2
1.10 Non-alcoholic beverages	114.0	112.4	113.3	117.5	128.2	128.6	116.7	128.7	130.0	117.2	128.4	129.2
1.11 Prepared meals etc	114.7	113.0	113.9	117.2	127.3	128.0	117.1	129.8	131.0	117.2	128.5	129.5
1.12 Pan, tobacco and intoxicants	120.0	118.5	119.6	122.8	135.1	135.6	123.0	136.8	137.9	122.9	135.6	136.2
2 Fuel and light	**118.1**	**113.8**	**116.5**	**121.3**	**130.6**	**131.2**	**117.8**	**128.8**	**129.2**	**120.0**	**129.9**	**130.4**
3 Housing	**--**	**108.7**	**108.7**	**--**	**--**	**--**	**113.6**	**124.5**	**125.5**	**113.6**	**124.5**	**125.5**
4 Clothing, bedding and footwear	**118.7**	**119.4**	**118.9**	**122.6**	**135.9**	**136.4**	**124.5**	**136.5**	**137.3**	**123.3**	**136.1**	**136.7**
4.1 Clothing and bedding	119.0	120.4	119.5	123.0	136.5	137.1	125.6	138.0	138.8	123.9	137.0	137.7
4.2 Footwear	116.6	113.8	115.6	120.6	132.0	132.5	118.5	128.1	128.8	119.8	130.6	131.2
5 Miscellaneous	**112.6**	**108.7**	**110.8**	**115.6**	**123.0**	**123.6**	**111.5**	**119.1**	**120.0**	**113.7**	**121.2**	**121.9**
5.1 Medical care	110.0	107.3	109.1	112.5	118.7	119.1	110.3	117.8	118.4	111.8	118.4	118.9
5.2 Education, stationery etc	110.6	107.7	109.0	112.9	119.2	119.7	109.8	118.8	119.1	111.2	119.0	119.4
5.3 Recreation and amusement	108.5	103.2	105.3	110.4	116.0	116.5	103.7	108.5	108.8	106.4	111.5	111.9
5.4 Transport and communication	113.7	110.2	111.7	116.8	124.4	125.7	112.8	119.2	120.8	114.5	121.5	122.9
5.5 Personal care and effects	110.0	106.7	108.6	112.5	120.3	120.9	109.8	117.3	117.7	111.4	119.1	119.6
5.6 Household requisites	117.4	109.8	114.4	121.4	130.5	130.3	113.4	122.8	123.1	118.2	127.4	127.4
5.7 Others	119.2	117.0	118.3	123.1	134.9	135.8	123.2	137.8	139.4	123.1	136.1	137.3
General Index (All Groups)	**113.1**	**110.4**	**111.9**	**115.4**	**127.3**	**128.1**	**113.5**	**124.9**	**125.8**	**114.6**	**126.3**	**127.1**

Source: Central Statistics Office, Ministry of Statistics and Programme Implementation, Government of India.

No. 19: Other Consumer Price Indices

Item	Base Year	Linking Factor	2011-12	Feb. 12	Jan. 13	Feb. 13
	1	2	3	4	5	6
1 Consumer Price Index for Industrial Workers	2001	4.63	195	199	221	223
2 Consumer Price Index for Agricultural Labourers	1986-87	5.89	611	621	694	700
3 Consumer Price Index for Rural Labourers	1986-87	5.89	611	623	695	701

Source: Labour Bureau, Ministry of Labour and Employment, Government of India.

No. 20: Monthly Average Price of Gold and Silver in Mumbai

Item	2011-12	2012	2013	
		Feb.	Jan.	Feb.
	1	2	3	4
1 Standard Gold (₹ per 10 grams)	25,722	28,119	30,520	29,963
2 Silver (₹ per kilogram)	57,311	56,767	58,732	57,311

Source: Bombay Bullion Association Ltd.

No. 21: Wholesale Price Index

(Base: 2004-05 = 100)

Commodities	Weight	2011-12	2012		2013	
			Feb.	Dec.	Jan. (P)	Feb. (P)
	1	2	3	4	5	6
1 ALL COMMODITIES	**100.000**	**156.1**	**159.3**	**168.8**	**169.2**	**170.2**
1.1 PRIMARY ARTICLES	**20.118**	**200.3**	**203.0**	**219.9**	**221.4**	**222.7**
1.1.1 Food articles	**14.337**	**192.7**	**192.4**	**211.2**	**213.8**	**214.3**
1.1.1.1 Food Grains	4.090	180.7	183.5	215.8	215.9	217.2
1.1.1.1.1 Cereals	3.373	176.2	178.2	209.1	209.5	212.4
1.1.1.1.2 Pulses	0.717	201.8	208.6	247.5	246.4	239.8
1.1.1.2 Fruits & Vegetables	3.843	183.2	166.0	181.0	187.6	183.2
1.1.1.2.1 Vegetables	1.736	179.3	161.0	180.0	188.7	180.5
1.1.1.2.2 Fruits	2.107	186.4	170.2	181.9	186.7	185.4
1.1.1.3 Milk	3.238	194.0	201.5	210.6	210.4	210.7
1.1.1.4 Eggs, Meat & Fish	2.414	214.3	230.4	250.0	253.2	260.0
1.1.1.5 Condiments & Spices	0.569	237.5	214.4	209.9	217.3	222.1
1.1.1.6 Other Food Articles	0.183	216.5	216.5	242.4	245.4	235.9
1.1.2 Non-Food Articles	**4.258**	**182.7**	**186.8**	**203.5**	**202.3**	**205.6**
1.1.2.1 Fibres	0.877	218.4	197.0	205.2	204.8	211.9
1.1.2.2 Oil Seeds	1.781	158.8	164.3	204.0	204.9	202.8
1.1.2.3 Other Non-Food Articles	1.386	195.3	202.3	209.4	205.2	208.9
1.1.2.4 Flowers	0.213	153.9	232.3	153.7	151.3	181.4
1.1.3 Minerals	**1.524**	**320.7**	**348.1**	**347.0**	**347.0**	**350.1**
1.1.3.1 Metallic Minerals	0.489	411.5	459.2	434.3	435.8	434.3
1.1.3.2 Other Minerals	0.135	165.9	172.4	219.3	215.4	219.3
1.1.3.3 Crude Petroleum	0.900	294.5	314.1	318.8	318.5	323.9
1.2 FUEL & POWER	**14.910**	**169.0**	**176.7**	**190.4**	**189.5**	**195.2**
1.2.1 Coal	2.094	191.0	210.3	210.3	210.3	210.3
1.2.2 Mineral Oils	9.364	184.0	191.2	207.3	205.8	214.9
1.2.3 Electricity	3.452	115.0	117.0	132.4	132.4	132.4
1.3 MANUFACTURED PRODUCTS	**64.972**	**139.5**	**141.8**	**148.0**	**148.3**	**148.2**
1.3.1 Food Products	**9.974**	**151.2**	**153.2**	**166.7**	**165.9**	**165.7**
1.3.1.1 Dairy Products	0.568	171.6	178.7	175.7	175.8	176.0
1.3.1.2 Canning, Preserving & Processing of Food	0.358	139.6	144.5	145.5	144.8	144.4
1.3.1.3 Grain Mill Products	1.340	146.2	146.3	162.8	162.1	163.5
1.3.1.4 Bakery Products	0.444	127.2	128.4	130.0	134.8	130.0
1.3.1.5 Sugar, Khandsari & Gur	2.089	167.7	169.9	190.0	188.4	186.4
1.3.1.6 Edible Oils	3.043	135.7	139.3	149.6	149.3	148.4
1.3.1.7 Oil Cakes	0.494	175.3	175.5	212.7	214.1	211.1
1.3.1.8 Tea & Coffee Proccessing	0.711	156.6	150.8	170.4	165.1	170.3
1.3.1.9 Manufacture of Salt	0.048	176.2	181.8	181.8	181.8	181.8
1.3.1.10 Other Food Products	0.879	157.4	159.6	167.6	166.1	170.0
1.3.2 Beverages, Tobacco & Tobacco Products	**1.762**	**163.3**	**167.8**	**177.1**	**177.0**	**178.8**
1.3.2.1 Wine Industries	0.385	122.6	123.6	125.0	124.9	126.0
1.3.2.2 Malt Liquor	0.153	170.0	170.2	171.8	171.8	171.8
1.3.2.3 Soft Drinks & Carbonated Water	0.241	148.5	151.5	153.6	155.0	156.8
1.3.2.4 Manufacture of Bidi, Cigarettes, Tobacco & Zarda	0.983	181.8	188.7	204.1	203.7	206.0
1.3.3 Textiles	**7.326**	**128.5**	**127.4**	**132.5**	**133.4**	**133.1**
1.3.3.1 Cotton Textiles	2.605	143.8	140.4	146.0	146.9	148.2
1.3.3.1.1 Cotton Yarn	1.377	154.7	148.1	156.3	158.0	160.1
1.3.3.1.2 Cotton Fabric	1.228	131.6	131.7	134.5	134.6	134.9
1.3.3.2 Man-Made Textiles	2.206	120.0	119.9	125.6	127.2	127.6
1.3.3.2.1 Man-Made Fibre	1.672	120.1	119.5	126.1	127.0	127.8
1.3.3.2.2 Man-Made Fabric	0.533	119.7	121.2	123.9	127.7	126.9
1.3.3.3 Woollen Textiles	0.294	132.6	134.2	146.6	148.7	146.2
1.3.3.4 Jute, Hemp & Mesta Textiles	0.261	176.3	171.0	180.0	179.5	180.4
1.3.3.5 Other Misc. Textiles	1.960	110.9	111.8	113.8	113.8	110.9
1.3.4 Wood & Wood Products	**0.587**	**161.0**	**163.9**	**173.5**	**174.4**	**173.7**
1.3.4.1 Timber/Wooden Planks	0.181	136.0	137.4	141.2	141.5	141.8
1.3.4.2 Processed Wood	0.128	170.8	174.2	180.8	180.9	180.9
1.3.4.3 Plywood & Fibre Board	0.241	179.3	182.6	197.9	199.6	197.5
1.3.4.4 Others	0.038	131.5	136.7	148.1	149.8	150.7

No. 21: Wholesale Price Index (Concld.)

(Base: 2004-05 = 100)

Commodities	Weight	2011-12	2012		2013	
			Feb.	Dec.	Jan. (P)	Feb. (P)
	1	2	3	4	5	6
1.3.5 Paper & Paper Products	**2.034**	**131.9**	**132.3**	**137.7**	**137.8**	**138.3**
1.3.5.1 Paper & Pulp	1.019	133.0	132.5	136.8	136.9	137.7
1.3.5.2 Manufacture of boards	0.550	124.9	124.5	129.3	129.3	129.6
1.3.5.3 Printing & Publishing	0.465	137.9	140.9	149.8	149.8	150.0
1.3.6 Leather & Leather Products	**0.835**	**130.0**	**130.4**	**135.1**	**135.7**	**133.8**
1.3.6.1 Leathers	0.223	110.9	110.5	112.6	112.5	112.9
1.3.6.2 Leather Footwear	0.409	143.8	143.9	150.8	152.0	148.0
1.3.6.3 Other Leather Products	0.203	123.2	124.9	128.0	128.0	128.0
1.3.7 Rubber & Plastic Products	**2.987**	**133.6**	**134.2**	**138.6**	**138.3**	**139.0**
1.3.7.1 Tyres & Tubes	0.541	161.2	162.1	163.9	163.9	162.8
1.3.7.1.1 Tyres	0.488	160.9	161.9	163.8	163.8	162.6
1.3.7.1.2 Tubes	0.053	163.0	164.4	165.2	165.2	165.1
1.3.7.2 Plastic Products	1.861	122.5	122.6	128.1	127.7	129.2
1.3.7.3 Rubber Products	0.584	143.6	145.2	148.4	148.2	148.2
1.3.8 Chemicals & Chemical Products	**12.018**	**134.7**	**137.9**	**144.5**	**144.9**	**144.9**
1.3.8.1 Basic Inorganic Chemicals	1.187	138.2	141.5	149.7	149.4	148.9
1.3.8.2 Basic Organic Chemicals	1.952	135.0	136.8	139.4	139.4	140.1
1.3.8.3 Fertilisers & Pesticides	3.145	129.8	136.3	147.5	149.1	147.9
1.3.8.3.1 Fertilisers	2.661	132.6	140.1	152.1	153.9	152.5
1.3.8.3.2 Pesticides	0.483	114.9	115.9	122.3	122.2	122.3
1.3.8.4 Paints, Varnishes & Lacquers	0.529	128.5	134.9	144.4	144.2	144.3
1.3.8.5 Dyestuffs & Indigo	0.563	122.5	123.8	127.3	127.3	127.7
1.3.8.6 Drugs & Medicines	0.456	119.6	121.3	124.9	124.0	124.5
1.3.8.7 Perfumes, Cosmetics, Toiletries etc.	1.130	145.3	146.8	152.7	152.7	152.7
1.3.8.8 Turpentine, Plastic Chemicals	0.586	136.1	138.3	139.1	139.3	138.8
1.3.8.9 Polymers including Synthetic Rubber	0.970	130.4	130.5	134.0	134.4	134.8
1.3.8.10 Petrochemical Intermediates	0.869	156.2	158.8	164.0	165.1	166.1
1.3.8.11 Matches, Explosives & other Chemicals	0.629	135.5	136.7	144.0	143.5	145.1
1.3.9 Non-Metallic Mineral Products	**2.556**	**152.9**	**156.2**	**162.4**	**163.3**	**164.8**
1.3.9.1 Structural Clay Products	0.658	155.3	159.3	166.5	166.8	167.1
1.3.9.2 Glass, Earthenware, Chinaware & their Products	0.256	127.0	128.1	131.9	131.6	131.6
1.3.9.3 Cement & Lime	1.386	157.0	160.5	164.9	167.4	168.6
1.3.9.4 Cement, Slate & Graphite Products	0.256	150.8	153.0	168.8	164.1	171.4
1.3.10 Basic Metals, Alloys & Metal Products	**10.748**	**156.3**	**162.0**	**165.4**	**166.0**	**165.0**
1.3.10.1 Ferrous Metals	8.064	147.7	153.1	154.9	155.5	154.9
1.3.10.1.1 Iron & Semis	1.563	152.7	161.3	156.6	160.8	155.6
1.3.10.1.2 Steel: Long	1.630	158.5	164.3	168.0	167.8	167.1
1.3.10.1.3 Steel: Flat	2.611	146.0	150.7	153.6	153.4	153.6
1.3.10.1.4 Steel: Pipes & Tubes	0.314	125.2	125.1	127.9	127.7	127.7
1.3.10.1.5 Stainless Steel & alloys	0.938	145.9	151.3	157.3	157.2	159.1
1.3.10.1.6 Castings & Forgings	0.871	133.5	137.1	139.3	138.4	140.9
1.3.10.1.7 Ferro alloys	0.137	146.8	147.0	151.6	152.8	151.4
1.3.10.2 Non-Ferrous Metals	1.004	157.1	157.6	162.4	161.6	162.4
1.3.10.2.1 Aluminium	0.489	128.1	129.5	136.5	136.3	136.1
1.3.10.2.2 Other Non-Ferrous Metals	0.515	184.7	184.2	187.1	185.7	187.3
1.3.10.3 Metal Products	1.680	197.2	207.5	217.9	218.8	215.3
1.3.11 Machinery & Machine Tools	**8.931**	**125.1**	**126.3**	**128.9**	**129.1**	**129.3**
1.3.11.1 Agricultural Machinery & Implements	0.139	133.9	135.5	137.2	137.3	137.3
1.3.11.2 Industrial Machinery	1.838	142.3	143.6	147.1	147.1	147.2
1.3.11.3 Construction Machinery	0.045	131.7	131.8	136.5	136.5	136.5
1.3.11.4 Machine Tools	0.367	145.0	145.8	157.2	157.0	157.7
1.3.11.5 Air Conditioner & Refrigerators	0.429	109.8	110.1	112.4	112.4	113.9
1.3.11.6 Non-Electrical Machinery	1.026	121.6	124.0	123.0	123.1	123.2
1.3.11.7 Electrical Machinery, Equipment & Batteries	2.343	129.7	130.9	133.6	133.8	133.9
1.3.11.8 Electrical Accessories, Wires, Cables etc.	1.063	138.0	139.7	143.6	144.4	144.6
1.3.11.9 Electrical Apparatus & Appliances	0.337	116.3	116.8	118.3	118.4	118.7
1.3.11.10 Electronics Items	0.961	84.8	85.3	87.2	87.2	87.2
1.3.11.11 IT Hardware	0.267	88.5	89.1	89.2	89.2	89.2
1.3.11.12 Communication Equipments	0.118	94.2	94.4	93.7	93.7	93.7
1.3.12 Transport, Equipment & Parts	**5.213**	**124.6**	**125.8**	**131.2**	**131.3**	**131.3**
1.3.12.1 Automotives	4.231	123.8	125.0	130.4	130.5	130.5
1.3.12.2 Auto Parts	0.804	125.3	126.5	131.3	131.2	131.2
1.3.12.3 Other Transport Equipments	0.178	140.3	142.1	149.7	149.8	149.8

Source: Office of the Economic Adviser, Ministry of Commerce and Industry, Government of India.

No. 22: Index of Industrial Production (Base:2004-05=100)

Industry	Weight	2010-11	2011-12	April-January		January	
				2011-12	2012-13	2012	2013
	1	2	3	4	5	6	7
General Index	**100.00**	**165.5**	**170.3**	**168.0**	**169.6**	**177.6**	**181.8**
1 Sectoral Classification							
1.1 Mining and Quarrying	14.16	131.0	128.5	125.7	123.3	138.0	134.0
1.2 Manufacturing	75.53	175.7	181.0	178.6	180.2	188.6	193.7
1.3 Electricity	10.32	138.0	149.3	148.8	155.8	151.1	160.7
2 Use-Based Classification							
2.1 Basic Goods	45.68	142.2	150.0	148.3	152.4	156.9	162.3
2.2 Capital Goods	8.83	278.9	267.8	263.9	239.4	256.8	252.1
2.3 Intermediate Goods	15.69	145.3	144.4	143.2	145.7	146.5	149.4
2.4 Consumer Goods	29.81	178.3	186.1	183.0	187.9	202.2	207.9
2.4.1 Consumer Durables	8.46	287.7	295.1	291.7	301.1	287.4	284.8
2.4.2 Consumer Non-Durables	21.35	135.0	142.9	139.9	143.1	168.4	177.4

Source : Central Statistics Office, Ministry of Statistics and Programme Implementation, Government of India.

Government Accounts and Treasury Bills

No. 23: Union Government Accounts at a Glance

(Amount in ₹ Billion)

Item	Financial Year	April–February			
	2012-13 (Revised Estimates)	2011-12 (Actuals)	2012-13 (Actuals)	Percentage to Revised Estimates	
				2011-12	2012-13
	1	2	3	4	5
1 Revenue Receipts	8,718.3	5,929.3	6,788.3	77.3	77.9
1.1 Tax Revenue (Net)	7,421.2	4,935.9	5,719.3	76.9	77.1
1.2 Non-Tax Revenue	1,297.1	993.4	1,069.0	79.6	82.4
2 Capital Receipts	5,590.0	5,140.4	5,407.1	93.2	96.7
2.1 Recovery of Loans	140.7	177.2	105.6	124.3	75.0
2.2 Other Receipts	240.0	27.4	228.0	17.7	95.0
2.3 Borrowings and Other Liabilities	5,209.3	4,935.7	5,073.6	94.6	97.4
3 Total Receipts (1+2)	14,308.3	11,069.6	12,195.4	83.9	85.2
4 Non-Plan Expenditure	10,016.4	7,786.6	8,665.2	87.3	86.5
4.1 On Revenue Account	9,197.0	6,969.4	7,871.5	85.4	85.6
4.1.1 Interest Payments	3,166.7	2,360.1	2,638.5	85.6	83.3
4.2 On Capital Account	819.4	817.3	793.7	107.0	96.9
5 Plan Expenditure	4,291.9	3,283.0	3,530.2	77.0	82.3
5.1 On Revenue Account	3,433.7	2,774.6	2,877.9	80.1	83.8
5.2 On Capital Account	858.1	508.4	652.3	63.2	76.0
6 Total Expenditure (4+5)	14,308.3	11,069.6	12,195.4	83.9	85.2
7 Revenue Expenditure (4.1+5.1)	12,630.7	9,744.0	10,749.4	83.9	85.1
8 Capital Expenditure (4.2+5.2)	1,677.5	1,325.7	1,446.0	84.6	86.2
9 Revenue Deficit (7-1)	3,912.4	3,814.7	3,961.1	96.6	101.2
10 Fiscal Deficit {6-(1+2.1+2.2)}	5,209.2	4,935.7	5,073.6	94.6	97.4
11 Gross Primary Deficit [10-4.1.1]	2,042.5	2,575.6	2,435.1	104.5	119.2

Source: Controller General of Accounts, Ministry of Finance, Government of India.

No. 24: Treasury Bills – Ownership Pattern

(₹ Billion)

Item	2012-13	2012	2013					
		Feb. 24	Jan. 18	Jan. 25	Feb. 1	Feb. 8	Feb. 15	Feb. 22
	1	2	3	4	5	6	7	8
1 14-day								
1.1 Banks	–	–	–	–	–	–	–	–
1.2 Primary Dealers	–	–	–	–	–	–	–	–
1.3 State Governments	1,588.5	854.2	900.0	1,052.2	1,184.8	1,029.4	1,047.5	1,241.7
1.4 Others	3.7	15.7	12.2	3.1	3.5	7.0	5.9	8.9
2 91-day								
2.1 Banks	342.1	335.7	408.4	371.4	373.3	364.7	357.2	335.7
2.2 Primary Dealers	261.2	343.9	183.3	191.9	205.6	201.2	202.2	209.6
2.3 State Governments	292.6	386.9	524.2	549.2	519.2	529.7	472.5	449.8
2.4 Others	145.6	156.7	102.9	136.7	121.1	134.1	140.7	154.8
3 182-day								
3.1 Banks	216.0	127.4	280.5	270.0	264.8	259.1	258.4	250.1
3.2 Primary Dealers	225.0	235.2	243.0	252.7	275.2	250.9	267.2	268.2
3.3 State Governments	2.4	4.0	2.4	2.4	2.4	2.4	2.4	2.4
3.4 Others	200.9	127.3	126.5	127.2	110.0	140.1	124.4	131.7
4 364-day								
4.1 Banks	324.8	231.0	244.3	240.9	267.4	279.6	286.5	291.6
4.2 Primary Dealers	511.8	475.0	622.0	587.3	612.6	560.9	538.8	556.4
4.3 State Governments	3.8	4.2	3.8	3.8	3.8	3.8	3.8	3.8
4.4 Others	464.3	173.5	384.7	432.8	381.0	430.5	445.7	433.0
5 Total	4,582.8	3,470.7	4,038.1	4,221.6	4,324.6	4,193.3	4,153.2	4,337.6

No. 25: Auctions of Treasury Bills

(Amount in ₹ Billion)

Date of Auction	Notified Amount	Bids Received			Bids Accepted			Total Issue (6+7)	Cut-off Price	Implicit Yield at Cut-off Price (per cent)
		Number	Total Face Value		Number	Total Face Value				
			Competitive	Non-Competitive		Competitive	Non-Competitive			
	1	2	3	4	5	6	7	8	9	10
91-day Treasury Bills										
2012-13										
Jan. 30	50	51	167.47	50.01	30	50.00	50.01	100.01	98.06	7.9353
Feb. 6	50	64	205.26	60.63	49	50.00	60.63	110.63	98.05	7.9770
Feb. 13	50	56	153.41	5.04	34	50.00	5.04	55.04	98.05	7.9770
Feb. 20	50	47	153.34	12.28	32	50.00	12.28	62.28	98.04	8.0187
Feb. 27	70	62	135.66	27.22	38	57.11	27.22	84.33	98.02	8.1022
182-day Treasury Bills										
2012-13										
Jan. 30	50	47	120.34	–	20	50.00	–	50.00	96.19	7.9436
Feb. 13	50	49	133.09	0.01	11	50.00	0.01	50.01	96.19	7.9436
Feb. 27	50	54	139.53	–	14	41.92	–	41.92	96.15	8.0303
364-day Treasury Bills										
2012-13										
Jan. 9	50	73	189.16	0.08	23	50.00	0.08	50.08	92.74	7.8498
Jan. 23	50	52	118.39	–	28	50.00	–	50.00	92.75	7.8382
Feb. 6	50	85	184.87	–	34	50.00	–	50.00	92.71	7.8848
Feb. 20	50	74	162.95	0.01	31	50.00	0.01	50.01	92.70	7.8965

Financial Markets

No. 26: Daily Call Money Rates

(Per cent per annum)

As on		Range of Rates	Weighted Average Rates
		Borrowings/ Lendings	Borrowings/ Lendings
		1	2
February	1, 2013	6.40-7.90	7.79
February	2, 2013	5.00-7.60	7.15
February	4, 2013	6.40-7.85	7.73
February	5, 2013	6.40-7.85	7.74
February	6, 2013	6.40-8.25	7.79
February	7, 2013	6.40-7.95	7.78
February	8, 2013	6.40-7.85	7.75
February	9, 2013	6.75-8.75	7.86
February	11, 2013	6.40-7.85	7.79
February	12, 2013	6.40-7.90	7.80
February	13, 2013	6.40-7.90	7.80
February	14, 2013	6.40-7.90	7.79
February	15, 2013	6.75-8.10	7.81
February	16, 2013	6.50-7.75	7.51
February	18, 2013	6.75-8.02	7.87
February	20, 2013	6.75-7.95	7.83
February	21, 2013	6.55-8.00	7.85
February	22, 2013	6.40-8.00	7.86
February	23, 2013	6.50-7.80	7.64
February	25, 2013	6.40-7.95	7.85
February	26, 2013	6.40-7.90	7.84
February	27, 2013	6.40-7.90	7.84
February	28, 2013	6.40-7.90	7.85
March	1, 2013	6.40-7.95	7.84
March	2, 2013	5.00-7.65	6.73
March	4, 2013	6.25-7.90	7.70
March	5, 2013	6.15-7.85	7.70
March	6, 2013	6.30-7.95	7.75
March	7, 2013	6.30-8.00	7.74
March	8, 2013	6.25-8.00	7.75
March	9, 2013	6.50-7.80	7.63
March	11, 2013	6.40-7.90	7.81
March	12, 2013	6.40-7.85	7.79
March	13, 2013	6.40-7.90	7.80
March	14, 2013	6.40-7.85	7.79
March	15, 2013	6.40-8.10	7.83

No. 27: Certificates of Deposit

Item	2012	2013			
	Feb. 24	Jan. 11	Jan. 25	Feb. 8	Feb. 22
	1	2	3	4	5
1 Amount Outstanding (₹ Billion)	4,028.9	3,382.9	3,251.0	3,125.2	3,010.9
1.1 Issued during the fortnight (₹ Billion)	388.0	241.1	174.8	169.1	246.8
2 Rate of Interest (per cent)	9.30-10.65	8.19-8.88	8.11-9.25	7.85-9.31	7.95-9.90

No. 28: Commercial Paper

Item	2012	2013			
	Feb. 29	Jan. 15	Jan. 31	Feb. 15	Feb. 28
	1	2	3	4	5
1 Amount Outstanding (₹ Billion)	1,617.6	2,117.5	1,998.4	2,095.6	1,923.4
1.1 Reported during the fortnight (₹ Billion)	254.9	472.3	275.6	430.0	263.1
2 Rate of Interest (per cent)	8.47-14.75	8.05-13.45	7.97-13.37	7.88-14.96	8.02-13.96

No. 29: Average Daily Turnover in Select Financial Markets

(₹ Billion)

Item	2011-12	2012	2013					
		Feb. 24	Jan. 18	Jan. 25	Feb. 1	Feb. 8	Feb. 15	Feb. 22
	1	2	3	4	5	6	7	8
1 Call Money	217.0	225.9	235.2	281.2	314.1	234.4	274.1	103.2
2 Notice Money	59.8	71.2	62.5	6.0	93.2	69.8	74.5	165.6
3 Term Money	4.9	2.8	10.6	7.6	16.9	9.4	11.4	11.8
4 CBLO	769.3	687.3	886.0	776.4	1,150.5	939.0	833.5	707.1
5 Market Repo	519.2	582.2	705.0	796.0	824.9	944.7	976.6	1,083.5
6 Repo in Corporate Bond	0.1	1.1	–	–	0.8	–	–	–
7 Forex (US $ million)	57,105	51,997	54,967	50,949	58,744	54,408	46,533	41,949
8 Govt. of India Dated Securities	264.4	249.8	1,116.1	700.3	584.8	657.5	819.3	650.0
9 State Govt. Securities	4.4	6.0	11.9	26.6	8.6	12.7	8.0	11.3
10 Treasury Bills								
10.1 91-Day	15.9	16.3	14.8	16.5	19.6	17.8	9.0	16.0
10.2 182-Day	4.5	0.9	8.4	1.6	5.7	8.0	3.5	1.2
10.3 364-Day	7.8	8.8	18.2	29.1	16.1	30.6	20.3	30.2
10.4 Cash Management Bills	3.5	–	–	–	–	–	–	–
11 Total Govt. Securities (8+9+10)	300.6	281.8	1,169.4	774.1	634.8	726.6	860.0	708.8
11.1 RBI	6.3	25.4	0.4	0.8	0.4	4.8	2.3	25.4

No. 30: New Capital Issues By Non-Government Public Limited Companies

(Amount in ₹ Billion)

Security & Type of Issue	2011-12		2011-12 (Apr.-Jan.)		2012-13 (Apr.-Jan.)		Jan. 2012		Jan. 2013	
	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount
	1	2	3	4	5	6	7	8	9	10
1 Equity Shares	49	81.5	39	70.7	32	119.9	–	–	2	4.9
1A Premium	47	65.6	38	55.6	29	109.0	–	–	2	4.8
1.1 Prospectus	34	57.8	29	49.8	20	45.0	–	–	1	0.1
1.1.1 Premium	33	44.3	29	36.6	18	42.2	–	–	1	0.1
1.2 Rights	15	23.7	10	20.9	12	74.8	–	–	1	4.7
1.2.1 Premium	14	21.3	9	19.0	11	66.8	–	–	1	4.7
2 Preference Shares	–	–	–	–	–	–	–	–	–	–
2.1 Prospectus	–	–	–	–	–	–	–	–	–	–
2.2 Rights	–	–	–	–	–	–	–	–	–	–
3 Debentures	–	–	–	–	–	–	–	–	–	–
3.1 Prospectus	–	–	–	–	–	–	–	–	–	–
3.2 Rights	–	–	–	–	–	–	–	–	–	–
3.2.1 Convertible	–	–	–	–	–	–	–	–	–	–
3.2.1.1 Prospectus	–	–	–	–	–	–	–	–	–	–
3.2.1.2 Rights	–	–	–	–	–	–	–	–	–	–
3.2.2 Non-Convertible	–	–	–	–	–	–	–	–	–	–
3.2.2.1 Prospectus	–	–	–	–	–	–	–	–	–	–
3.2.2.2 Rights	–	–	–	–	–	–	–	–	–	–
4 Bonds	–	–	–	–	–	–	–	–	–	–
4.1 Prospectus	–	–	–	–	–	–	–	–	–	–
4.2 Rights	–	–	–	–	–	–	–	–	–	–
5 Total (1+2+3+4)	49	81.5	39	70.7	32	119.9	–	–	2	4.9
5.1 Prospectus	34	57.8	29	49.8	20	45.0	–	–	1	0.1
5.2 Rights	15	23.7	10	20.9	12	74.8	–	–	1	4.7

Source: Based on prospectus/advertisements issued by companies, replies to Reserve Bank's questionnaire and information received from SEBI, stock exchanges, press reports, etc.

External Sector

No. 31: Foreign Trade

Item	Unit	2011-12	2012				2013	
			Feb.	Oct.	Nov.	Dec.	Jan.	Feb.
		1	2	3	4	5	6	7
1 Exports	₹ Billion	14,659.6	1,238.7	1,262.2	1,242.3	1,337.0	1,348.9	1,412.1
	US $ Million	305,963.9	25,194.4	23,803.7	22,679.3	24,466.5	24,833.7	26,259.4
1.1 Oil	₹ Billion	2,679.1	190.1	325.9	290.2	263.1	259.1	..
	US $ Million	56,038.5	3,866.6	6,145.9	5,297.3	5,426.0	4,769.9	..
1.2 Non-oil	₹ Billion	11,980.4	1,048.6	936.3	952.1	1,074.0	1,089.8	..
	US $ Million	249,925.4	21,327.8	17,657.8	17,381.9	19,040.5	20,063.8	..
2 Imports	₹ Billion	23,454.6	1,972.5	2,367.5	2,260.6	2,365.4	2,479.7	2,214.5
	US $ Million	489,319.5	40,118.5	44,650.0	41,270.0	43,285.0	45,651.9	41,181.7
2.1 Oil	₹ Billion	7,430.7	645.3	835.8	776.1	800.9	873.1	814.6
	US $ Million	154,967.6	13,121.0	15,763.2	14,169.1	14,656.5	16,074.3	15,148.3
2.2 Non-oil	₹ Billion	16,023.9	1,327.2	1,531.7	1,484.5	1,564.5	1,606.6	1,399.9
	US $ Million	334,351.9	26,997.5	28,886.8	27,100.9	28,628.5	29,577.5	26,033.4
3 Trade Balance	₹ Billion	–8,795.0	–733.8	–1,105.4	–1,018.3	–1,028.4	–1,130.8	–802.4
	US $ Million	–183,355.6	–14,924.1	–20,846.3	–18,590.8	–18,818.5	–20,818.1	–14,922.3
3.1 Oil	₹ Billion	–4,751.6	–455.2	–509.9	–486.0	–537.9	–614.0	..
	US $ Million	–98,929.1	–9,254.4	–9,617.3	–8,871.8	–9,230.5	–11,304.4	..
3.2 Non-oil	₹ Billion	–4,043.4	–278.6	–595.4	–532.4	–490.5	–516.8	..
	US $ Million	–84,426.5	–5,669.8	–11,229.0	–9,718.9	–9,588.0	–9,513.7	..

Source: DGCI & S and Ministry of Commerce & Industry.

No. 32: Foreign Exchange Reserves

Item	Unit	2012	2013					
		Mar. 16	Feb. 8	Feb. 15	Feb. 22	Mar. 1	Mar. 8	Mar. 15
		1	2	3	4	5	6	7
1 Total Reseves	**₹ Billion**	**14,794**	**15,771**	**15,828**	**15,857**	**15,812**	**15,780**	**15,822**
	US $ Million	**294,821**	**294,543**	**293,519**	**291,916**	**290,574**	**290,350**	**292,317**
1.1 Foreign Currency Assets	₹ Billion	13,055	13,970	14,025	14,055	14,035	14,003	14,047
	US $ Million	259,489	260,780	259,786	258,229	257,608	257,382	259,354
1.2 Gold	₹ Billion	1,377	1,438	1,438	1,438	1,414	1,414	1,414
	US $ Million	28,128	26,975	26,975	26,975	26,292	26,292	26,292
1.3 SDRs	SDRs Million	2,885	2,886	2,887	2,887	2,887	2,887	2,887
	₹ Billion	222	237	238	238	237	237	236
	US $ Million	4,420	4,426	4,406	4,376	4,352	4,353	4,349
1.4 Reserve Tranche Position in IMF	₹ Billion	140	127	127	127	127	126	126
	US $ Million	2,785	2,362	2,352	2,336	2,323	2,323	2,321

No. 33: NRI Deposits

(US$ Million)

Scheme	Outstanding				Flows	
	2011-12	2012	2013		2011-12	2012-13
		Feb.	Jan.	Feb.	Apr.-Feb.	Apr.-Feb.
	1	2	3	4	5	6
1 NRI Deposits	**58,608**	**58,213**	**69,065**	**69,319**	**9,733**	**13,379**
1.1 FCNR(B)	14,968	15,550	14,840	14,808	–48	–160
1.2 NR(E)RA	31,408	29,997	44,346	44,764	5,854	15,271
1.3 NRO	12,232	12,666	9,879	9,747	3,926	–1,732

No. 34: Foreign Investment Inflows

(US$ Million)

Item	2011-12	2011-12	2012-13	2012	2013	
		Apr.-Feb.	Apr.-Feb.	Feb.	Jan.	Feb.
	1	2	3	4	5	6
1 Foreign Investment Inflows	**39,177**	**39,545**	**47,724**	**9,655**	**9,295**	**6,664**
1.1 Net Foreign Direct Investment (1.1.1–1.1.2)	**22,006**	**21,763**	**21,533**	**484**	**3,122**	**2,433**
1.1.1 Direct Investment to India (1.1.1.1–1. 1.1.2)	**32,955**	**31,784**	**27,568**	**1,757**	**3,204**	**2,621**
1.1.1.1 Gross Inflows/Gross Investments	**46,553**	**43,935**	**33,912**	**3,204**	**3,672**	**3,088**
1.1.1.1.1 Equity	35,854	34,132	21,268	2,306	2,248	1,886
1.1.1.1.1.1 Government (SIA/FIPB)	3,046	3,001	2,306	205	192	84
1.1.1.1.1.2 RBI	20,427	19,177	14,959	1,270	1,687	1,381
1.1.1.1.1.3 Acquisition of shares	11,360	11,027	3,036	736	279	330
1.1.1.1.1.4 Equity capital of unincorporated bodies	1,021	927	968	95	91	91
1.1.1.1.2 Reinvested earnings	8,205	7,444	10,089	762	936	936
1.1.1.1.3 Other capital	2,494	2,359	2,555	136	488	266
1.1.1.2 Repatriation/Disinvestment	**13,598**	**12,151**	**6,345**	**1,448**	**468**	**468**
1.1.1.2.1 Equity	13,018	11,598	5,650	1,421	467	467
1.1.1.2.2 Other capital	580	553	695	27	1	1
1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3–1.1.2.4)	**10,949**	**10,020**	**6,034**	**1,273**	**82**	**188**
1.1.2.1 Equity capital	6,388	5,574	5,756	558	287	355
1.1.2.2 Reinvested Earnings	1,208	1,108	1,089	101	99	99
1.1.2.3 Other Capital	5,808	5,566	4,025	842	165	204
1.1.2.4 Repatriation/Disinvestment	2,455	2,228	4,835	228	469	469
1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3–1.2.4)	**17,171**	**17,781**	**26,191**	**9,171**	**6,172**	**4,231**
1.2.1 GDRs/ADRs	597	597	187	–	–	–
1.2.2 FIIs	16,813	17,365	26,337	9,228	6,117	4,176
1.2.3 Offshore funds and others	–	–	–	–	–	–
1.2.4 Portfolio investment by India	239	181	333	57	–55	–55

No. 35: Outward Remittances under the Liberalised Remittance Scheme (LRS) for Resident Individuals

(US$ Million)

Item	2011-12	2012			2013
		Jan.	Nov.	Dec.	Jan.
	1	2	3	4	5
1 Outward Remittances under the LRS	**1,001.6**	**69.6**	**77.4**	**79.5**	**98.9**
1.1 Deposit	26.6	1.3	1.0	0.6	2.8
1.2 Purchase of immovable property	62.2	2.0	6.3	4.6	6.9
1.3 Investment in equity/debt	239.5	14.8	11.8	11.5	13.5
1.4 Gift	244.6	12.1	16.9	20.0	22.6
1.5 Donations	3.5	0.2	1.0	0.4	0.2
1.6 Travel	34.9	4.1	5.0	3.3	4.8
1.7 Maintenance of close relatives	165.2	14.4	14.5	16.4	20.8
1.8 Medical Treatment	3.6	0.6	0.3	0.4	0.4
1.9 Studies Abroad	114.3	11.8	8.0	10.7	15.4
1.10 Others	107.2	8.3	12.6	11.7	11.5

No. 36: Indices of Real Effective Exchange Rate (REER) and Nominal Effective Exchange Rate (NEER) of the Indian Rupee

Item	2010-11	2011-12	2012	2013	
			March	February	March
	1	2	3	4	5
36-Currency Export and Trade Based Weights (Base: 2004-05=100)					
1 Trade-Based Weights					
1.1 NEER	93.66	87.61	84.22	79.00	78.79
1.2 REER	102.34	99.15	96.94	93.29	93.04
2 Export-Based Weights					
2.1 NEER	94.74	89.06	85.81	80.59	80.35
2.2 REER	103.52	100.68	98.60	95.27	94.99
6-Currency Trade Based Weights					
1 Base: 2004-05 (April-March) =100					
1.1 NEER	91.83	84.86	81.60	76.38	76.40
1.2 REER	114.91	111.86	109.59	106.42	106.40
2 Base: 2010-11 (April-March) =100					
2.1 NEER	100.00	92.41	88.86	83.17	83.19
2.2 REER	100.00	97.35	95.37	92.61	92.60

No. 37: External Commercial Borrowings (ECBs)

(Amount in US$ Million)

Item	2011-12	2012	2013	
		Feb.	Jan.	Feb.
	1	2	3	4
1 Automatic Route				
1.1 Number	999	64	57	58
1.2 Amount	27,849	863	638	1,082
2 Approval Route				
2.1 Number	68	12	12	8
2.2 Amount	7,861	1,740	2,876	1,261
3 Total (1+2)				
3.1 Number	1,067	76	69	66
3.2 Amount	35,710	2,603	3,514	2,343
4 Weighted Average Maturity (in years)	5.78	4.97	5.72	13.50
5 Interest Rate (per cent)				
5.1 Weighted Average Margin over 6-month LIBOR or reference rate for Floating Rate Loans	2.89	2.19	2.38	2.68
5.2 Interest rate range for Fixed Rate Loans	0.00-8.00	0.00-4.39	0.00-9.00	1.31-5.88

No. 38: India's Overall Balance of Payments

(US $ Million)

Item	Oct-Dec 2011 (PR)			Oct-Dec 2012 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	**234,890**	**247,703**	**–12,812**	**250,140**	**249,359**	**781**
1 CURRENT ACCOUNT	**128,266**	**148,220**	**–19,954**	**127,825**	**160,371**	**–32,546**
1.1 MERCHANDISE	**71,400**	**120,104**	**–48,704**	**71,833**	**131,437**	**–59,604**
1.2 INVISIBLES	**56,866**	**28,116**	**28,750**	**55,993**	**28,934**	**27,059**
1.2.1 Services	37,552	21,385	16,167	36,502	18,912	17,590
1.2.1.1 Travel	5,068	3,530	1,538	5,050	3,010	2,039
1.2.1.2 Transportation	4,705	4,444	260	4,215	3,570	645
1.2.1.3 Insurance	799	440	359	524	552	–28
1.2.1.4 G.n.i.e.	145	186	–40	140	153	–13
1.2.1.5 Miscellaneous	26,835	12,785	14,050	26,574	11,628	14,946
1.2.1.5.1 Software Services	16,123	317	15,806	16,466	565	15,901
1.2.1.5.2 Business Services	6,806	6,950	–143	7,135	7,906	–770
1.2.1.5.3 Financial Services	1,613	2,189	–577	1,382	898	484
1.2.1.5.4 Communication Services	456	341	115	358	250	108
1.2.2 Transfers	17,024	614	16,410	16,827	1,081	15,745
1.2.2.1 Official	351	149	202	336	261	75
1.2.2.2 Private	16,673	465	16,208	16,491	821	15,670
1.2.3 Income	2,290	6,118	–3,827	2,664	8,940	–6,276
1.2.3.1 Investment Income	1,707	5,566	–3,859	1,898	8,372	–6,474
1.2.3.2 Compensation of Employees	583	551	32	766	568	198
2 CAPITAL ACCOUNT	**106,624**	**98,944**	**7,680**	**120,749**	**88,988**	**31,761**
2.1 Foreign Investment	**49,784**	**42,922**	**6,861**	**53,077**	**41,771**	**11,306**
2.1.1 Foreign Direct Investment	10,434	5,470	4,963	9,126	6,600	2,526
2.1.1.1 In India	9,432	2,559	6,873	7,530	2,720	4,810
2.1.1.1.1 Equity	7,149	2,515	4,634	4,363	2,624	1,739
2.1.1.1.2 Reinvested Earnings	2,051	–	2,051	3,092	–	3,092
2.1.1.1.3 Other Capital	232	44	188	75	96	–21
2.1.1.2 Abroad	1,001	2,911	–1,910	1,595	3,880	–2,284
2.1.1.2.1 Equity	1,001	1,385	–384	1,595	2,167	–571
2.1.1.2.2 Reinvested Earnings	–	302	–302	–	297	–297
2.1.1.2.3 Other Capital	–	1,223	–1,223	–	1,416	–1,416
2.1.2 Portfolio Investment	39,350	37,452	1,898	43,951	35,171	8,781
2.1.2.1 In India	39,149	37,204	1,945	43,448	33,444	10,004
2.1.2.1.1 FIIs	39,065	37,204	1,861	43,289	33,444	9,845
2.1.2.1.2 ADR/GDRs	84	–	84	159	–	159
2.1.2.2 Abroad	201	248	–47	503	1,727	–1,224
2.2 Loans	**35,183**	**33,581**	**1,602**	**40,721**	**30,092**	**10,630**
2.2.1 External Assistance	2,209	856	1,353	2,250	851	1,399
2.2.1.1 By India	17	57	–39	13	68	–55
2.2.1.2 To India	2,191	800	1,392	2,237	783	1,454
2.2.2 Commercial Borrowings	7,827	8,153	–327	7,400	4,379	3,021
2.2.2.1 By India	1,405	901	504	409	498	–89
2.2.2.2 To India	6,422	7,252	–830	6,991	3,881	3,110
2.2.3 Short Term to India	25,148	24,572	576	31,071	24,861	6,210
2.2.3.1 Suppliers' Credit > 180 days & Buyers' Credit	25,148	23,897	1,251	29,402	24,861	4,541
2.2.3.2 Suppliers' Credit up to 180 days	–	675	–675	1,669	–	1,669
2.3 Banking Capital	**16,146**	**21,632**	**–5,487**	**20,245**	**14,964**	**5,281**
2.3.1 Commercial Banks	16,143	21,505	–5,362	20,245	14,927	5,318
2.3.1.1 Assets	393	2,770	–2,377	2,688	1,540	1,148
2.3.1.2 Liabilities	15,750	18,735	–2,985	17,557	13,386	4,170
2.3.1.2.1 Non-Resident Deposits	15,698	12,375	3,323	15,505	12,853	2,651
2.3.2 Others	3	127	–124	–	37	–37
2.4 Rupee Debt Service	–	–	–	–	–	–
2.5 Other Capital	**5,511**	**808**	**4,703**	**6,706**	**2,162**	**4,544**
3 Errors & Omissions	**–**	**538**	**–538**	**1,566**	**–**	**1,566**
4 Monetary Movements	**12,812**	–	**12,812**	–	**781**	**–781**
4.1 I.M.F.	–	–	–	–	–	–
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	12,812	–	12,812	–	781	–781

No. 39: India's Overall Balance of Payments

(₹ Billion)

Item	Oct-Dec 2011 (PR)			Oct-Dec 2012 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	**11,963**	**12,616**	**–653**	**13,545**	**13,503**	**42**
1 CURRENT ACCOUNT	**6,533**	**7,549**	**–1,016**	**6,922**	**8,684**	**–1,762**
1.1 MERCHANDISE	**3,636**	**6,117**	**–2,481**	**3,890**	**7,117**	**–3,228**
1.2 INVISIBLES	**2,896**	**1,432**	**1,464**	**3,032**	**1,567**	**1,465**
1.2.1 Services	1,913	1,089	823	1,977	1,024	952
1.2.1.1 Travel	258	180	78	273	163	110
1.2.1.2 Transportation	240	226	13	228	193	35
1.2.1.3 Insurance	41	22	18	28	30	–1
1.2.1.4 G.n.i.e.	7	9	–2	8	8	–1
1.2.1.5 Miscellaneous	1,367	651	716	1,439	630	809
1.2.1.5.1 Software Services	821	16	805	892	31	861
1.2.1.5.2 Business Services	347	354	–7	386	428	–42
1.2.1.5.3 Financial Services	82	111	–29	75	49	26
1.2.1.5.4 Communication Services	23	17	6	19	14	6
1.2.2 Transfers	867	31	836	911	59	853
1.2.2.1 Official	18	8	10	18	14	4
1.2.2.2 Private	849	24	825	893	44	849
1.2.3 Income	117	312	–195	144	484	–340
1.2.3.1 Investment Income	87	284	–197	103	453	–351
1.2.3.2 Compensation of Employees	30	28	2	41	31	11
2 CAPITAL ACCOUNT	**5,430**	**5,039**	**391**	**6,538**	**4,819**	**1,720**
2.1 Foreign Investment	**2,536**	**2,186**	**349**	**2,874**	**2,262**	**612**
2.1.1 Foreign Direct Investment	531	279	253	494	357	137
2.1.1.1 In India	480	130	350	408	147	260
2.1.1.1.1 Equity	364	128	236	236	142	94
2.1.1.1.2 Reinvested Earnings	104	–	104	167	–	167
2.1.1.1.3 Other Capital	12	2	10	4	5	–1
2.1.1.2 Abroad	51	148	–97	86	210	–124
2.1.1.2.1 Equity	51	71	–20	86	117	–31
2.1.1.2.2 Reinvested Earnings	–	15	–15	–	16	–16
2.1.1.2.3 Other Capital	–	62	–62	–	77	–77
2.1.2 Portfolio Investment	2,004	1,907	97	2,380	1,904	475
2.1.2.1 In India	1,994	1,895	99	2,353	1,811	542
2.1.2.1.1 FIIs	1,990	1,895	95	2,344	1,811	533
2.1.2.1.2 ADR/GDRs	4	–	4	9	–	9
2.1.2.2 Abroad	10	13	–2	27	94	–66
2.2 Loans	**1,792**	**1,710**	**82**	**2,205**	**1,629**	**576**
2.2.1 External Assistance	112	44	69	122	46	76
2.2.1.1 By India	1	3	–2	1	4	–3
2.2.1.2 To India	112	41	71	121	42	79
2.2.2 Commercial Borrowings	399	415	–17	401	237	164
2.2.2.1 By India	72	46	26	22	27	–5
2.2.2.2 To India	327	369	–42	379	210	168
2.2.3 Short Term to India	1,281	1,251	29	1,682	1,346	336
2.2.3.1 Suppliers' Credit > 180 days & Buyers' Credit	1,281	1,217	64	1,592	1,346	246
2.2.3.2 Suppliers' Credit up to 180 days	–	34	–34	90	–	90
2.3 Banking Capital	**822**	**1,102**	**–279**	**1,096**	**810**	**286**
2.3.1 Commercial Banks	822	1,095	–273	1,096	808	288
2.3.1.1 Assets	20	141	–121	146	83	62
2.3.1.2 Liabilities	802	954	–152	951	725	226
2.3.1.2.1 Non-Resident Deposits	800	630	169	840	696	144
2.3.2 Others	–	–	–6	–	–	–2
2.4 Rupee Debt Service	–	–	–	–	–	–
2.5 Other Capital	**281**	**41**	**240**	**363**	**117**	**246**
3 Errors & Omissions	–	**27**	**–27**	**85**	–	**85**
4 Monetary Movements	**653**	–	**653**	–	**42**	**–42**
4.1 I.M.F.	–	–	–	–	–	–
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	653	–	653	–	42	–42

No. 40: Standard Presentation of BoP in India as per BPM6

(US $ Million)

Item	Oct-Dec 2011 (PR)			Oct-Dec 2012 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account	**127,674**	**147,830**	**–20,156**	**127,490**	**160,121**	**–32,632**
1.A Goods and Services	**108,711**	**141,248**	**–32,536**	**108,335**	**150,349**	**–42,014**
1.A.a Goods	**71,459**	**120,104**	**–48,645**	**71,833**	**131,437**	**–59,604**
1.A.a.1 General merchandise on a BOP basis	71,400	107,373	–35,973	69,629	112,732	–43,103
1.A.a.2 Net exports of goods under merchanting	59	–	59	2,204	1,154	1,049
1.A.a.3 Non-monetary gold	–	12,731	–12,731	–	17,550	17,550
1.A.b Services	**37,252**	**21,144**	**16,108**	**36,502**	**18,912**	**17,590**
1.A.b.1 Manufacturing services on physical inputs owned by others	–	–	–	28	10	18
1.A.b.2 Maintenance and repair services n.i.e.	–	–	–	33	78	–45
1.A.b.3 Transport	4,709	4,451	257	4,215	3,570	645
1.A.b.4 Travel	5,068	3,530	1,538	5,050	3,010	2,039
1.A.b.5 Construction	204	155	49	252	264	–12
1.A.b.6 Insurance and pension services	799	440	359	524	552	–28
1.A.b.7 Financial services	1,613	2,189	–577	1,382	898	484
1.A.b.8 Charges for the use of intellectual property n.i.e.	78	919	–841	71	1,084	–1,012
1.A.b.9 Telecommunications, computer, and information services	16,605	764	15,842	16,928	930	15,997
1.A.b.10 Other business services	6,506	6,708	–203	7,135	7,906	–770
1.A.b.11 Personal, cultural, and recreational services	67	48	20	238	141	97
1.A.b.12 Government goods and services n.i.e.	145	186	–40	140	153	–13
1.A.b.13 Others n.i.e.	1,458	1,754	–296	506	317	190
1.B Primary Income	**2,290**	**6,118**	**–3,827**	**2,664**	**8,940**	**–6,276**
1.B.1 Compensation of employees	583	551	32	766	568	198
1.B.2 Investment income	1,607	5,529	–3,922	1,568	8,274	–6,706
1.B.2.1 Direct investment	607	5,444	–4,837	592	4,572	–3,980
1.B.2.2 Portfolio investment	–	–	–	73	1,056	–983
1.B.2.3 Other investment	–	80	–80	102	2,645	–2,543
1.B.2.4 Reserve assets	1,000	5	995	801	–	800
1.B.3 Other primary income	100	37	63	330	98	231
1.C Secondary Income	**16,673**	**465**	**16,208**	**16,491**	**832**	**15,659**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	16,673	465	16,208	16,222	828	15,394
1.C.1.1 Personal transfers (Current transfers between resident and/ non-resident households)	16,018	396	15,622	15,559	741	14,818
1.C.1.2 Other current transfers	655	69	586	663	87	577
1.C.2 General Government	–	–	–	22	4	18
2 Capital Account	**352**	**232**	**120**	**740**	**730**	**10**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	–	83	–83	12	59	–46
2.2 Capital transfers	351	149	202	728	671	56
3 Financial Account	**119,436**	**98,860**	**20,575**	**120,834**	**89,779**	**31,055**
3.1 Direct Investment	**10,434**	**5,470**	**4,963**	**9,126**	**6,600**	**2,526**
3.1.A Direct Investment in India	9,432	2,559	6,873	7,530	2,720	4,810
3.1.A.1 Equity and investment fund shares	9,200	2,515	6,685	7,455	2,624	4,831
3.1.A.1.1 Equity other than reinvestment of earnings	7,149	2,515	4,634	4,363	2,624	1,739
3.1.A.1.2 Reinvestment of earnings	2,051	–	2,051	3,092	–	3,092
3.1.A.2 Debt instruments	232	44	188	75	96	–21
3.1.A.2.1 Direct investor in direct investment enterprises	232	44	188	75	96	–21
3.1.B Direct Investment by India	1,001	2,911	–1,910	1,595	3,880	–2,284
3.1.B.1 Equity and investment fund shares	1,001	1,687	–686	1,595	2,464	–869
3.1.B.1.1 Equity other than reinvestment of earnings	1,001	1,385	–384	1,595	2,167	–571
3.1.B.1.2 Reinvestment of earnings	–	302	–302	–	297	–297
3.1.B.2 Debt instruments	–	1,223	–1,223	–	1,416	–1,416
3.1.B.2.1 Direct investor in direct investment enterprises	–	1,223	–1,223	–	1,416	–1,416
3.2 Portfolio Investment	**39,266**	**37,452**	**1,814**	**43,792**	**35,171**	**8,622**
3.2A Portfolio Investment in India	39,065	37,204	1,861	43,289	33,444	9,845
3.2A.1 Equity and investment fund shares	23,325	25,055	–1,731	33,735	25,617	8,118
3.2A.2 Debt securities	15,740	12,148	3,592	9,554	7,827	1,727
3.2.B Portfolio Investment by India	201	248	–47	503	1,727	–1,224
3.3 Financial derivatives (other than reserves) and employee stock options	**–**	**–**	**–**	**840**	**1,200**	**–360**
3.4 Other investment	**56,924**	**55,938**	**985**	**67,068**	**46,019**	**21,049**
3.4.1 Other equity (ADRs/GDRs)	84	–	84	159	–	159
3.4.2 Currency and deposits	15,701	12,502	3,199	15,505	12,891	2,614
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	3	127	–124	–	37	–37
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	15,698	12,375	3,323	15,505	12,853	2,651
3.4.2.3 General government	–	–	–	–	–	–
3.4.2.4 Other sectors	–	–	–	–	–	–
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	10,480	18,139	–7,659	14,391	7,304	7,087
3.4.3A Loans to India	9,058	17,181	–8,124	13,969	6,738	7,231
3.4.3B Loans by India	1,422	958	464	422	566	–144
3.4.4 Insurance, pension, and standardized guarantee schemes	–	–	–	8	8	–
3.4.5 Trade credit and advances	25,148	24,572	576	31,071	24,861	6,210
3.4.6 Other accounts receivable/payable - other	5,511	725	4,786	5,943	963	4,979
3.4.7 Special drawing rights	–	–	–	–	–	–
3.5 Reserve assets	**12,812**	**–**	**12,812**	**–**	**781**	**–781**
3.5.1 Monetary gold	–	–	–	–	–	–
3.5.2 Special drawing rights n.a.	–	–	–	–	–	–
3.5.3 Reserve position in the IMF n.a.	–	–	–	–	–	–
3.5.4 Other reserve assets (Foreign Currency Assets)	12,812	–	12,812	–	781	–781
3 Total assets/liabilities (Instrument wise)	**119,436**	**98,860**	**20,575**	**119,986**	**88,571**	**31,415**
3.0.1 Equity and investment fund shares	33,727	29,506	4,221	43,289	32,432	10,857
3.0.2 Debt instruments	67,301	68,630	–1,328	70,596	54,394	16,201
3.0.3 Other financial assets and liabilities	18,407	725	17,682	6,102	1,745	4,357
4 Net errors and omissions	**–**	**538**	**–538**	**1,566**	**–**	**1,566**

No. 41: Standard Presentation of BoP in India as per BPM6

(₹ Billion)

Item	Oct-Dec 2011 (PR)			Oct-Dec 2012 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account	**6,503**	**7,529**	**–1,027**	**6,903**	**8,670**	**–1,767**
1.A Goods and Services	**5,537**	**7,194**	**–1,657**	**5,866**	**8,141**	**–2,275**
1.A.a Goods	**3,639**	**6,117**	**–2,477**	**3,890**	**7,117**	**–3,228**
1.A.a.1 General merchandise on a BOP basis	3,636	5,469	–1,832	3,770	6,104	–2,334
1.A.a.2 Net exports of goods under merchanting	3	–	3	119	63	57
1.A.a.3 Non-monetary gold	–	648	–648	–	950	–950
1.A.b Services	**1,897**	**1,077**	**820**	**1,977**	**1,024**	**952**
1.A.b.1 Manufacturing services on physical inputs owned by others	–	–	–	2	1	1
1.A.b.2 Maintenance and repair services n.i.e.	–	–	–	2	4	–2
1.A.b.3 Transport	240	227	13	228	193	35
1.A.b.4 Travel	258	180	78	273	163	110
1.A.b.5 Construction	10	8	3	14	14	–1
1.A.b.6 Insurance and pension services	41	22	18	28	30	–1
1.A.b.7 Financial services	82	111	–29	75	49	26
1.A.b.8 Charges for the use of intellectual property n.i.e.	4	47	–43	4	59	–55
1.A.b.9 Telecommunications, computer, and information services	846	39	807	917	50	866
1.A.b.10 Other business services	331	342	–10	386	428	–42
1.A.b.11 Personal, cultural, and recreational services	3	2	1	13	8	5
1.A.b.12 Government goods and services n.i.e.	7	9	–2	8	8	–1
1.A.b.13 Others n.i.e.	74	89	–15	27	17	10
1.B Primary Income	**117**	**312**	**–195**	**144**	**484**	**–340**
1.B.1 Compensation of employees	30	28	2	41	31	11
1.B.2 Investment income	82	282	–200	85	448	–363
1.B.2.1 Direct investment	31	277	–246	32	248	–216
1.B.2.2 Portfolio investment	–	–	–	4	57	–53
1.B.2.3 Other investment	–	4	–4	6	143	–138
1.B.2.4 Reserve assets	51	–	51	43	0	43
1.B.3 Other primary income	5	2	3	18	5	13
1.C Secondary Income	**849**	**24**	**825**	**893**	**45**	**848**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	849	24	825	878	45	834
1.C.1.1 Personal transfers (Current transfers between resident and/ non-resident households)	816	20	796	842	40	802
1.C.1.2 Other current transfers	33	4	30	36	5	31
1.C.2 General Government	–	–	–	1	0	1
2 Capital Account	**18**	**12**	**6**	**40**	**40**	**1**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	0	4	–4	1	3	–3
2.2 Capital transfers	18	8	10	39	36	3
3 Financial Account	**6,083**	**5,035**	**1,048**	**6,543**	**4,861**	**1,682**
3.1 Direct Investment	**531**	**279**	**253**	**494**	**357**	**137**
3.1.A Direct Investment in India	480	130	350	408	147	260
3.1.A.1 Equity and investment fund shares	469	128	340	404	142	262
3.1.A.1.1 Equity other than reinvestment of earnings	364	128	236	236	142	94
3.1.A.1.2 Reinvestment of earnings	104	–	104	167	–	167
3.1.A.2 Debt instruments	12	2	10	4	5	–1
3.1.A.2.1 Direct investor in direct investment enterprises	12	2	10	4	5	–1
3.1.B Direct Investment by India	51	148	–97	86	210	–124
3.1.B.1 Equity and investment fund shares	51	86	–35	86	133	–47
3.1.B.1.1 Equity other than reinvestment of earnings	51	71	–20	86	117	–31
3.1.B.1.2 Reinvestment of earnings	–	15	–15	–	16	–16
3.1.B.2 Debt instruments	–	62	–62	–	77	–77
3.1.B.2.1 Direct investor in direct investment enterprises	–	62	–62	–	77	–77
3.2 Portfolio Investment	**2,000**	**1,907**	**92**	**2,371**	**1,904**	**467**
3.2A Portfolio Investment in India	1,990	1,895	95	2,344	1,811	533
3.2A.1 Equity and investment fund shares	1,188	1,276	–88	1,827	1,387	440
3.2A.2 Debt securities	802	619	183	517	424	94
3.2.B Portfolio Investment by India	10	13	–2	27	94	–66
3.3 Financial derivatives (other than reserves) and employee stock options	**–**	**–**	**–**	**45**	**65**	**–19**
3.4 Other investment	**2,899**	**2,849**	**50**	**3,632**	**2,492**	**1,140**
3.4.1 Other equity (ADRs/GDRs)	4	–	4	9	–	9
3.4.2 Currency and deposits	800	637	163	840	698	142
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	0	6	–6	–	2	–2
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	800	630	169	840	696	144
3.4.2.3 General government	–	–	–	–	–	–
3.4.2.4 Other sectors	–	–	–	–	–	–
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	534	924	–390	779	395	384
3.4.3A Loans to India	461	875	–414	756	365	392
3.4.3B Loans by India	72	49	24	23	31	–8
3.4.4 Insurance, pension, and standardized guarantee schemes	–	–	–	0	0	0
3.4.5 Trade credit and advances	1,281	1,251	29	1,682	1,346	336
3.4.6 Other accounts receivable/payable - other	281	37	244	322	52	270
3.4.7 Special drawing rights	–	–	–	–	–	–
3.5 Reserve assets	**653**	**–**	**653**	**–**	**42**	**–42**
3.5.1 Monetary gold	–	–	–	–	–	–
3.5.2 Special drawing rights n.a.	–	–	–	–	–	–
3.5.3 Reserve position in the IMF n.a.	–	–	–	–	–	–
3.5.4 Other reserve assets (Foreign Currency Assets)	653	–	653	–	42	–42
3 Total assets/liabilities (Instrument wise)	**6,083**	**5,035**	**1,048**	**6,497**	**4,796**	**1,701**
3.0.1 Equity and investment fund shares	1,718	1,503	215	2,344	1,756	588
3.0.2 Debt instruments	3,428	3,495	–68	3,823	2,945	877
3.0.3 Other financial assets and liabilities	937	37	901	330	94	236
4 Net errors and omissions	**–**	**27**	**–27**	**85**	**–**	**85**

No. 42: International Investment Position

(US$ Million)

Item	As on Financial Year /Quarter End							
	2011-12		2011		2012			
			Dec.		Sep.		Dec.	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
	1	2	3	4	5	6	7	8
1 Direct Investment Abroad/in India	112,376	222,250	109,519	206,454	115,882	229,929	118,167	226,370
1.1 Equity Capital and Reinvested Earnings	82,048	213,119	80,665	197,709	83,288	219,939	84,157	216,362
1.2 Other Capital	30,329	9,131	28,854	8,745	32,594	9,990	34,010	10,008
2 Portfolio Investment	1,472	165,782	1,487	146,597	1,536	164,635	1,536	169,543
2.1 Equity	1,455	125,330	1,462	109,730	1,448	125,683	1,448	129,090
2.2 Debt	17	40,453	25	36,867	87	38,952	87	40,454
3 Other Investment	29,524	298,283	24,327	287,728	29,662	318,878	26,570	328,018
3.1 Trade Credit	–39	67,320	1,345	67,228	5,606	76,925	3,020	83,070
3.2 Loan	6,067	160,220	4,975	157,702	3,761	164,785	3,610	165,540
3.3 Currency and Deposits	11,764	58,778	7,472	52,615	8,418	67,207	7,509	67,758
3.4 Other Assets/Liabilities	11,732	11,965	10,535	10,183	11,877	9,961	12,431	11,650
4 Reserves	294,397	–	296,688	–	294,812	–	295,638	–
5 Total Assets/ Liabilities	437,770	686,315	432,022	640,779	441,892	713,441	441,910	723,931
6 IIP (Assets - Liabilities)		–248,545		–208,757		–271,549		–282,021

Payment and Settlement Systems

No. 43: Payment System Indicators

System	Volume (Million)				Value (₹ Billion)			
	2011-12	2012	2013		2011-12	2012	2013	
		Dec.	Jan.	Feb.		Dec.	Jan.	Feb.
	1	2	3	4	5	6	7	8
1 RTGS	**55.05**	**6.03**	**6.29**	**5.82**	**1,079,790.59**	**68,729.93**	**70,454.74**	**63,890.48**
1.1 Customer Transactions	51.02	5.65	5.88	5.46	395,244.50	44,120.23	43,713.66	40,716.72
1.2 Interbank Transactions	4.00	0.38	0.40	0.36	144,062.98	13,157.67	14,288.39	12,165.99
1.3 Interbank Clearing	0.012	0.001	0.001	0.001	540,483.14	11,452.02	12,452.69	11,007.77
2 CCIL Operated Systems	**1.88**	**0.18**	**0.26**	**0.19**	**406,071.18**	**39,703.59**	**49,811.24**	**41,639.11**
2.1 CBLO	0.13	0.01	0.01	0.01	111,554.28	9,956.70	11,391.76	9,906.50
2.2 Govt. Securities Clearing	0.43	0.05	0.11	0.07	72,520.79	8,308.66	15,746.23	12,896.52
2.2.1 Outright	0.41	0.04	0.10	0.07	34,882.04	4,638.12	10,950.05	7,249.47
2.2.2 Repo	0.028	0.003	0.003	0.004	37,638.75	3,670.54	4,796.18	5,647.05
2.3 Forex Clearing	1.29	0.12	0.14	0.11	221,996.11	21,438.23	22,673.25	18,836.09
3 Paper Clearing	**1,341.88**	**108.48**	**99.17**	**110.92**	**99,012.15**	**7,836.75**	**7,960.32**	**8,030.12**
3.1 Cheque Truncation System (CTS)	180.04	25.03	25.02	26.10	15,103.74	1,913.13	1,913.13	2,001.27
3.2 MICR Clearing	934.89	64.71	60.13	66.95	65,093.25	4,475.09	4,166.23	4,020.30
3.2.1 RBI Centres	605.01	40.16	35.49	34.38	44,225.00	2,852.80	2,577.99	2,435.61
3.2.2 Other Centres	329.89	24.55	24.35	32.57	20,868.24	1,622.29	1,629.61	1,584.68
3.3 Non-MICR Clearing	226.96	18.74	14.03	17.86	18,815.16	1,448.53	1,880.96	2,008.56
4 Retail Electronic Clearing	**512.45**	**57.54**	**59.83**	**62.21**	**20,575.61**	**2,887.24**	**3,032.71**	**2,785.01**
4.1 ECS DR	164.74	15.00	13.99	14.99	833.84	90.10	132.20	92.73
4.2 ECS CR (includes NECS)	121.50	6.89	7.33	8.70	1,837.84	129.06	85.00	131.06
4.3 EFT/NEFT	226.10	35.54	38.36	38.29	17,903.49	2,667.68	2,814.88	2,560.35
4.4 Interbank Mobile Payment Service (IMPS)	0.07	0.11	0.15	0.22	0.32	0.39	0.63	0.87
5 Cards	**5,731.59**	**553.46**	**557.38**	**528.36**	**15,510.78**	**1,642.90**	**1,686.70**	**1,531.37**
5.1 Credit Cards	322.15	36.32	37.21	33.03	978.73	112.56	114.80	102.22
5.1.1 Usage at ATMs	1.84	0.22	0.21	0.20	10.64	1.24	1.22	1.17
5.1.2 Usage at POS	319.96	36.10	37.00	32.83	966.14	111.32	113.59	101.05
5.2 Debit Cards	5,409.45	517.14	520.17	495.34	14,532.04	1,530.34	1,571.90	1,429.15
5.2.1 Usage at ATMs	5,081.91	473.75	476.64	454.31	13,997.73	1,461.25	1,491.84	1,367.67
5.2.2 Usage at POS	327.52	43.39	43.53	41.03	534.33	69.09	80.06	61.49
6 Prepaid Payment Instruments (PPIs)	**30.60**	**7.18**	**6.68**	**7.33**	**62.01**	**8.18**	**4.91**	**4.73**
6.1 m-Wallet	–	4.17	4.66	5.41	–	1.52	1.31	1.47
6.2 PPI Cards	–	2.96	1.98	1.89	–	4.58	1.93	1.88
6.3 Paper Vouchers	–	0.05	0.04	0.03	–	2.08	1.67	1.38
7 Mobile Banking	**25.56**	**5.22**	**5.55**	**5.44**	**18.20**	**5.98**	**6.25**	**8.07**
8 Cards Outstanding	**295.94**	**333.31**	**339.01**	**344.89**	–	–	–	–
8.1 Credit Card	17.65	18.87	19.04	19.24	–	–	–	–
8.2 Debit Card	278.28	314.44	319.97	325.65	–	–	–	–
9 Number of ATMs (in actuals)	**95686**	**105784**	**107813**	**109629**	–	–	–	–
10 Number of POS (in actuals)	**660920**	**799702**	**812686**	**819688**	–	–	–	–
11 Grand Total (1.1+1.2+2+3+4+5+6)	**7,673.40**	**732.87**	**729.60**	**714.83**	**1,080,539.17**	**109,356.56**	**120,497.93**	**106,873.05**

Explanatory Notes to the Current Statistics

Table No. 1

1.2 & 6: Annual data are averages of months.
3.5 & 3.7: Relate to ratios of increments over financial year so far.
4.1 to 4.4, 4.8, 4.12 & 5: Relate to the last day of the month/financial year.
4.5, 4.6 & 4.7: Relate to five major banks on the last Friday of the month/financial year.
4.9 to 4.11: Relate to the last auction day of the month/financial year.

Table No. 2

2.1.2: Include paid-up capital, reserve fund and Long-Term Operations Funds.
2.2.2: Include cash, fixed deposits and short-term securities/bonds, *e.g.*, issued by IIFC (UK).

Table No. 6

For scheduled banks, March-end data pertain to the last reporting Friday.
2.2: Exclude balances held in IMF Account No.1, RBI employees' provident fund, pension fund, gratuity and superannuation fund.

Table Nos. 7 & 11

3.1 in Table 7 and 2.4 in Table 11: Include foreign currency denominated bonds issued by IIFC (UK).

Table No. 8

NM_2 and NM_3 do not include FCNR (B) deposits.
2.4: Consist of paid-up capital and reserves.
2.5: includes other demand and time liabilities of the banking system.

Table No. 9

Financial institutions comprise EXIM Bank, SIDBI, NABARD and NHB.
L_1 and L_2 are compiled monthly and L_3 quarterly.
Wherever data are not available, the last available data have been repeated.

Table No. 17

2.1.1: Exclude reserve fund maintained by co-operative societies with State Co-operative Banks
2.1.2: Exclude borrowings from RBI, SBI, IDBI, NABARD, notified banks and State Governments.
4: Include borrowings from IDBI and NABARD.

Table No. 24

Primary Dealers (PDs) include banks undertaking PD business.

Table No. 30

Exclude private placement and offer for sale.
1: Exclude bonus shares.
2: Include cumulative convertible preference shares and equi-preference shares.

Table No. 32

Exclude investment in foreign currency denominated bonds issued by IIFC (UK). Foreign currency assets in US dollar take into account appreciation/depreciation of non-US currencies (such as Euro, Sterling and Yen) held in reserves. Foreign exchange holdings are converted into rupees at rupee-US dollar RBI holding rates.

Table No. 34

1.1.1.1.2 & 1.1.1.1.1.4: Estimates.
1.1.1.2: Estimates for latest months.
'Other capital' pertains to debt transactions between parent and subsidiaries/branches of FDI enterprises.
Data may not tally with the BoP data due to lag in reporting.

Table No. 35

1.10: Include items such as subscription to journals, maintenance of investment abroad, student loan repayments and credit card payments.

Table No. 36

Increase in indices indicates appreciation of rupee and vice versa. For 6-Currency index, base year 2010-11 is a moving one, which gets updated every year. Methodological details are available in December 2005 issue of the Bulletin.

Table No. 37

Based on applications for ECB/Foreign Currency Convertible Bonds (FCCBs) which have been allotted loan registration number during the period.

Table Nos. 38, 39, 40 & 41

Explanatory notes on these tables are available in December issue of RBI Bulletin, 2012.

Table No. 43

1.3: Pertain to multilateral net settlement batches.
3.1: Pertain to two centres - New Delhi and Chennai.
3.3: Pertain to clearing houses managed by 21 banks.
6: Available from December 2010.
7: Include IMPS transactions.

Detailed explanatory notes are available in the relevant press releases issued by RBI and other publications/releases of the Bank such as **Handbook of Statistics on the Indian Economy**.

Recent Publications of the Reserve Bank of India

Name of Publication	Price	
	India	Abroad
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	India	Abroad
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